TIME UNDERESTIMATION

IN EDUCATIONAL INNOVATIVE PROJECTS IN IRAQ

KHALIS ABDUL RAHMAN AHMAD

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ABSTRACT

Time is a highly significant element in the complex process of educational change. It bears on all the components of innovative projects. It influences decisions to embark on a particular change model or a strategy. And ultimately time affects adoption decisions. But in spite of such significance, world-wide experience of introducing innovative programmes shows frequent occurrence of time underestimation. This study attempts to explain the reasons behind the phenomenon of time underestimation in educational change.

In the context of the Iraqi educational system, it appears that there are a number of reasons behind time underestimation in planning and implementing innovations. These can be grouped under two categories: economic and non-economic. The former explains the underestimation of time as a deliberate effort made by people in order to reduce the apparent cost of a lengthy process. The latter interprets the phenomenon by organizational, structural, or psychological factors. These include incomplete and weak situational analysis prior to introducing innovative projects, lack of coordination pertaining to prevalent work modes, predominance of a top-down change model the outcome of which is the absence of a feeling of ownership, lack of skilled and well-trained personnel, lack of clear-cut objectives and distinct features of projects, lack of dependable criteria for estimating the cost of projects, fear of accountability on the part of both the planners and the implementing bodies, lack of systematic and well-timed evaluation, and lack of interest or poor motivation.

Currently, economic considerations of time in the education sector are gaining ascendency. The opportunity cost of time makes a strong case for an efficient utilization-pattern of behaviour pertaining to time. And it appears imperative to base time estimation primarily on the cost that this entails.

DEDICATION

To my wife Afaf

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INTRODUCTION

This study is on the question of time underestimation in the process of planning for and implementing educational innovative projects in Iraq. But why is time important?

Early attempts to provide more relevant formal education in Iraq began in the early 1920s under the influence of Al Husri, the leading Arab educationist and nationalist when the country was under the British mandate (Simon 1986: ch.4, Marr 1985:37). These attempts were mainly constrained by political conditions, and lack of human and material resources. However, there were notable gains with regard to the quantitative side of the educational process. And this quantitative growth has continued ever since to reach its peak in the 1980s. But throughout this long period the search has persisted to provide more relevant, efficient, and equitable educational services. In other words, the search has persisted to make qualitative changes that match the quantitative accomplishments.

In essence, educational change represents a qualitative improvement over a previous practice. It is a complex social phenomenon. Further, it is conditioned by time. Lack of time constitutes a problem to an innovation. It may lead to "undesirable compromises" (Dalin 1978:30), and "inadequate logistical support" (Fullan 1982:68). And it may result in conveying discordant messages which "paralyse" the responses of schools (Maclure 1985:115). Furthermore, time influences decisions to embark on a particular model of change. And this is also the case with regard to strategies for change (Huberman 1973:93). For example, top-down strategies need less time than

bottom-up ones.

Time, then, constitutes a significant dimension in the process of educational change. It is a factor which bears on all other factors. One of the main conclusions of a major research work on educational change is that lack of time is the single most frequently cited barrier to implementation of innovative projects (Fullan 1982:293). This is consistent with an earlier major research finding that barriers to implementation of innovative projects reflect "merely a need for more time rather than anything else" (OECD/CERI 1973: Vol.4. 228-229). Hence, insufficient time appears to be a chief source behind many of the problems which impede implementing innovative programmes.

In short, time is recognized as an important element in the processes pertaining to educational change. But to the contrary of what might be expected in such a case, the problem of time occupies too little a space in the literature on educational innovation in comparison to its significance. It is true that it is cited in the literature, but it is equally true that it is frequently touched upon lightly, and rarely treated in full.

The issue of time acquires more significance in the particular case of Iraq. This can be considered at different levels. Firstly, developing countries are striving to speed up the process of national development, and to narrow the gap between them and the industrialized countries. It was, and

still is, conceived that education in particular can play a vital role in expediting the process of development. Therefore, there have been calls from all corners of the world, especially from international and regional agencies such as UNESCO, for developing countries to reform their systems of education, and to try to catch up with the rest of the world while there is still time. Pressures on developing countries have been immense and persistent. It was not without intention that J.R. Kidd chose "Whilst Time is Burning" as the title of his report on education and development in the mid 1970s. Besides, the seriousness and sharpness of this gap can further be put into focus if one takes into consideration that there has actually been what is called a "time gap" between industrialized countries themselves. In 1972, The Carnegie Commission on Higher Education maintained that "Europe ... seems to be faced with an even more difficult task than the United States in trying to reform its higher education system; it has to undertake many of the reforms that America has implemented progressively for almost 100 years, and it must, at the same time, introduce patterns of higher education in response to the needs that America also faces at this point in history" (cited in Dalin 1978:30). In Iraq, as is the case with the rest of the developing countries, the process of rapid development has made it imperative to consider time as a fundamental factor.

Secondly, in 1986 there was a sharp drop in the price of oil which constitutes the major source of revenue for Iraq. This drop "severely depressed the incomes of oil-exporting

developing countries" (The World Bank 1987:41-52). Both the terms of trade, and the gross national income of these countries have been greatly affected. Therefore, they have embarked on economic policy reforms to solve their problems. With regard to Iraq, the sharp drop in the price of oil was a contributory factor. It enhanced the need for strengthening the economic policy reforms which had already started in 1982 due to the impact of the war on the economy. The main policy measures included concentrating on vital economic projects, rationalizing public spending practices, reducing the scale of the imports programmes, easing bureaucratic routine in public sector operations, and encouraging the participation of the private sector in the economy. In short, the economic conditions have created pressures to use human and material resources, including time, optimally. Efficiency of performance has gained primacy. Time, in particular, has been a crucial factor of the production (Al Bustany 1984:66-80).

Thirdly, and perhaps most importantly, the state of the war between Iraq and Iran has crystallized a new thinking and orientation to the time factor. On the one hand, the war, which lasted eight years was costly at both the material[1] and human levels. The overall economic cost has necessitated more efficient use of resources, including time, if the war effort was to be sustained, and if its subsequent effects were to be endured. On the other hand, the military institution employed the time factor as a decisive element to reduce the human and material cost of the war (e.g., the critical battle for regaining the strategic and fortified Fao Peninsula lasted only

36 hours and was described as "successful blitzkrieg" Time No.18, May 2 1988, Newsweek No.18, May 2 1988). That was coupled by attempting shorter time frames for accomplishing tasks in other areas (e.g., developing military industries). The success of the military institution with regard to the efficient use of time has created a strong motivation for all other civil institutions to follow the same path though with varying degrees of success. Time-conscious efforts and accomplishments have been politically encouraged and rewarded.

Therefore the issue of time appears to be highly important at the level of the national development, the level of financial straits, and the level of the costly war.

At a more specific level, educational studies and reports in Iraq have neglected systematic investigation of the issue of time, and its relation to the process of educational change. Almost all the studies on innovative projects do not go far beyond indicating the need for more time in order to carry out certain activities such as the training programmes of teachers in a more appropriate manner. But the reasons behind time underestimation are not analyzed or questioned, or even justified.

Apart from this lack with regard to educational research in Iraq, what are the reasons behind people's underestimation of time in the literature on educational change. The frequently-cited reason in research is that political pressure or impatience has made it imperative for educational systems

to seek quick results in the shortest time possible (OECD/CERI 1973: Vol.4. 228-229, Fullan 1982:68). But the complexity of the process of educational change does not permit a single-factor explanation. However, sociology and economics appear to offer additional explanations to the problem of time "valuation" or calculation, though these explanations are not confined to educational settings.

From a sociological viewpoint, time is closely related to social settings. Each socio-cultural system has identified what is called the "social time" as distinct from the "physical or mathematical time", through its human activities, experiences, and interactions. The social time regulates and specifies social processes. And it corresponds to the characteristics of each socio-cultural system. Therefore, the difference between socio-cultural systems with regard to scheduling and allocating of time as part of their view of the world indicates that they have different time perspectives. "Traditional" cultures differ in their conception of time, and consequently they differ in their attitudes towards it from "modern" cultures. While the former attaches great importance to the "past", the latter's concerns are located in the "future" (Gardet et al. 1976, Deva 1984:197-202).

Although such a viewpoint may shed light on the issue of time use in different social contexts, it fails to elucidate the problem once it interprets cultural differences with regard to attitudes towards time in terms of "traditional" versus "modern" cultures. This dichotomy does not only suffers from

a serious limitation in explaining complex social phenomena (Renihan 1985:121-134), but it is also ethnocentric.

Economics appears to offer a plausible explanation to the problem of time underestimation based on the concept of opportunity cost. Making a decision to spend money or to use resources on a particular project means forgoing the opportunity to use those resources on an alternative project. This is called "the opportunity cost". To economists, "costs" normally mean opportunity costs not only direct monetary expenses (Baumol and Blinder 1985:16). Thus, making a decision to have more of something is simultaneously a decision to have less of something else. This applies to the cost of time. For example, the additional time needed by a curriculum unit to develop a new textbook means that the workers in the unit incur an opportunity cost equal to the value of the next best use of their time.

It is highly probable that the time to be spent on planning and implementing an innovative project can otherwise be used for introducing another project, or improving the activities of an existing project and so forth. The cost incurred as a result of making a wrong choice amounts, thus, to a double cost.

Further, there can be a trade off between time and money. Money can facilitate choice among alternatives, and mitigate the pressure of time. Time, on the other hand, gives manoeuvrability and a margin for corrective actions. Money

buys some time but cannot achieve overnight development. In other words, money is not a full substitute for time but it is a reward for labour (i.e., overtime). This indicates that time is translatable into other resources such as money and labour. This is particularly the case via the concept of opportunity cost. Lost time means all lost resources. Therefore, the concept of opportunity cost appears to provide a firm basis for considering the issue of time estimation in introducing educational innovations.

It is evident from the literature on educational change that time is frequently underestimated in introducing innovative projects. But it seems that the reason (i.e., political pressure or desire for quick results) behind this underestimation, significant as it is, does not address all the sides of the problem. Nor can "cultural relativity" explain people's tendency to underestimate time in social settings. There may be other reasons behind the frequent occurrence of time underestimation which are not taken into consideration, especially with regard to the context of the Iraqi educational system.

The above account, particularly that concerning the opportunity cost of time has led us to assume that people may deliberately underestimate time in planning for and carrying out educational innovative projects in order to reduce the apparent cost of a usually lengthy process in spite of the effects of such an act on the innovation. With regard to the particularity of the Iraqi educational system, the main

justifications for this hypothesis are the following. Firstly, efficiency (i.e., producing the same output at a lower cost, or a greater output at the same cost) is one of the major concerns of any adequate planning endeavour. Therefore, planners usually attempt to be efficient in allocating money for various educational activities, and to reduce their cost, including the cost of time of innovative projects (e.g., shorter training courses for teachers). The drive for more efficiency in the system has been intensified by the expansion of educational services on an unprecedented scale, and by the government's commitment to compulsory primary education and free education programmes. Secondly, although innovative projects need long time-frames, planners and decision makers tend to concentrate on short-term returns to investment. They appear not to be keen to allocate more money, which longer time-frames necessitated, for projects whose outcomes will not show up for a long time. And finally, the effects of the long and costly war coupled with the decline in oil revenues on the economic situation in Iraq have made it imperative for the education sector to adopt new measures. These basically included rationalizing spending practices, and encouraging both individual and collective attempts to reduce the cost of labour and time.

The Structure of the Study

The study comprises seven chapters and four appendices. The first chapter briefly deals with the development of the modern educational system in Iraq. It considers the process

of educational development within the wider context of the political, economic, and social change. The second chapter presents the theoretical framework of the study. It shows the significance of time in the process of educational change, discusses possible reasons behind time underestimation, and reveals that time is translatable into other resources via the concept of opportunity cost. The chapter also emphasizes that time is only one factor in a complex process. Chapter three deals with the methodological considerations of the study. Both the merits and shortcomings of the method and the technique used are considered. Also, the special conditions under which the fieldwork was carried out are outlined. Chapter four gives an account of the educational innovations in Iraq. Both chapters five and six present the analysis of the data. The former analyzes the interviews conducted with the main people who have played a pivotal role in introducing and evaluating innovative projects. The latter analyzes official documents as well as evaluative reports on the innovative projects. And the last chapter attempts to pull the threads of the study together, and to draw the conclusions. As for the appendices, they contain the interview schedule, the Arabic version of the interview schedule, a selection of the responses in Arabic original, and a brief profile of the educational system in Iraq at present.

Notes

1. Estimates of the costs of the war vary, and should be treated with caution. However, most of the estimates agree that the material cost was huge. The following excerpts, from an Economic Intelligence Unit Report, can serve as illustrative example:

> (The report) ... "put reconstruction costs for Iraq at £148 bn. For both countries, however, the war's economic costs have not been confined to the large-scale destruction of oil installations, factories and homes ... The direct military costs have therefore been about £53 bn for Iraq ... In addition, both sides have incurred heavy indirect losses, such as lost oil production, as the result of damaged installations, and lost industrial and agricultural output because of the diversion of manpower into the armed forces. For Iraq, these were put at about £12.5 bn annually, or £100 bn for the entire conflict ... Combining the direct and indirect costs of running the war with the actual costs of war damage, a grand total is reached of £301 bn for Iraq." .. the total cost is "£379 bn for Iran."
>
> (Source: The Independent Wed. 20 July 1988)

CHAPTER ONE

THE DEVELOPMENT OF THE MODERN EDUCATIONAL SYSTEM IN IRAQ

This chapter deals with the development of the modern educational system in Iraq over a period of more than a century. It relates the process of educational development to the political, economic, and social conditions at different political eras of Iraq's modern history. And it shows that the search for innovative educational practices has continued but deepened and strengthened by the political commitment to improve educational services, the need to speed up the process of development, and the imperatives to sustain the challenge of the war. A profile of the Iraqi educational system at present is given in Appendix IV.

1869-1917

Modern education - in the form of schools patterned on European models - in Iraq goes back to the last quarter of the 19th century. At that time Iraq was under the domination of the Ottoman Empire. The Ottoman domination lasted four centuries: from the 16th century up to the First World War. That long period left its Turkish stamp on the patterns of government, law, outlook, and values of the urban centres and the upper strata of the society in Iraq (Marr 1985:19). The period was characterized by wars between the Ottomans and the Persians to dominate Iraq which had drastic effects on the people of the country, social and economic backwardness, and the instability of the central government which manifested in conflict between the governors of Iraq and Istanbul as well as in loss of control of the countryside that was under the control of the tribes (pp. 18-22). That was a period of political rivalry and unrest, economic stagnation, social retardation, and cultural backwardness.

It was not until the last quarter of the 19th century that some important reforms took place in Iraq. Midhat Pasha, the Turk who governed Iraq between 1869-1872, introduced genuine organizational and social reforms. These centred around reorganizing the administrative machinery, establishing modern schools, and settling the tribes. As regards education, a technical school, a middle level school, and two secondary schools were established. Unlike the Koranic schools which were ungraded and limited in scope (Matthews and Akrawi

1949:540), and which ultimately were the product of a long period marked by "intellectual stagnation" (Berque 1983:30), those newly-established schools were founded on a western type, and introduced a variety of subjects. They were operated alongside the schools established by western missions for non-muslim children (Marr 1985:23).

Education services continued to expand in Iraq after the move initiated by Midhat Pasha, and by 1915 there were 160 schools. Of these, there were only four secondary schools. In addition to that, a law college was founded in 1908 to start higher education in Iraq. Although this might mark a major development in establishing a modern system of education, the schools were often "ill-staffed", and "handicapped" because Turkish was the medium of instruction which was a foreign language for the great majority of the people (Marr 1985:24).

In short, during that period of Iraq's history, education was provided for the few to fill government posts, and to shape the modes of thinking and behaviour of those who receive it into the Ottoman patterns. At the same time, the Koranic schools were on the wane, and were steadily replaced by the modern schools.

1917-1920

The defeat of the Ottoman Empire in the First World War led to the fall of Iraq in 1917 in the hands of the British, and between 1920-1932, the country was under the British

Mandate. The British maintained a rather low profile with regard to administration in Iraq, which was described by Percy Cox, the British High Commissioner, as "administration with an Arab facade" (cited in Simon 1986:82).

Although there were attempts to accelerate economic development, these were neither stemmed from genuine political will, nor pursued with earnestness. The economic structure of the country remained largely weak. And the source of financing the state was indirect taxes which hit hardest the poorest segments of society (Stork 1982:27-46). Further, the predominance of backward agricultural economy coupled with the land ownership and the tenancy system which remained as before were major causes behind the low standard of living in Iraq (Matthews and Akrawi 1949:526).

However, the educational scene witnessed several changes. Of these, the most important, perhaps, was the authorization by the British of using the Arabic language as the medium of instruction in schools. At the same time, the British encouraged and supported denominational schools. And while they expanded primary education, they restricted secondary education. That policy was essentially based on political considerations. Although the British claimed that secondary education graduates would be in excess of what the country needed, the fact was that they thought that "graduates would serve as a potential source of anti-British agitation" (Simon 1986:82).

1920-1932

With the establishment of the Iraqi state in 1921, the coming of an Arab nationalist monarch - Faisal I - to the throne of Iraq, and the appointment of a leading Arab nationalist thinker - Al Husri - as the director general of education, a new era began with regard to education. Al Husri made a profound and lasting impact on education. During his years in office between 1921-1927 "primary schools and students enrolment doubled, and secondary schools quadrupled" (Simon 1986:83). These quantitative achievements were coupled with sending competent students abroad for higher education. But Al Husri's major accomplishment was in the area of curriculum development. He concentrated his efforts on instilling Arab nationalism and patriotism in Iraqi schools. He stressed military training and "regarded national service as important as compulsory education" (Hemphill 1979:88-110).

But what kind of nationalism was advocated by Al Husri? In Marr's (1985:37) words it was "distinctly secular and progressive." This means that it was a nationalism "opposed to sectarianism and ethnic separatism". To this end, Al Husri exerted massive efforts to establish a centralized system of education, and a uniform curriculum for Iraqi schools which emphasized the Arabic language and the Arab history. He made all that amid a hostile milieu. It was natural, then, for him to clash with both the British and the sectarian elements in the country. Those conflicts were over many issues amongst them policy, methods and political control. And though Al

Husri was forced to resign his post, his imprint on education in Iraq was indelible. He institutionalized a movement which continued to gather momentum in time. Even his opponents could not deny his merits. The British admitted his unmatched experience and knowledge and also his "fearlessness" in the colonial Report for 1927 (cited in Simon 1986:83).

Under the British mandate, education suffered mainly from political conflicts, limited allocation of money, and dearth of educationally qualified personnel. The educational services, thus, remained largely ineffective. The major reasons behind that educational situation were the foreign control of political decisions, the weak economic capacity of the country, and the lack of social development programmes (Marr 1985:49, Ahmad 1982:353-355). But in spite of that, the small number of Arab and Iraqi educationists made notable efforts to lay the foundations of a national system of education. Of those, the accomplishments of Al Husri were commendable.

1932-1958

In 1932, Iraq gained her independence, but the British influence on the politics of the country continued, though it receded. The monarchic rule lasted from 1921 up until the revolution of 1958. During that period the parameters within which Iraq's political system moved were largely set by Britain (Niblock 1982:1-6, Silverfarb 1985:145).

The monarchic era witnessed laying the foundations of the new state and the development of its institutions. Also, the Iraqi government - with its limited resources from oil production which started in 1934 and exploited mainly by the British companies - expanded social services, set the foundations for a communication network, and invested in agricultural development schemes (Niblock 1982:1-6).

Analyzing the educational scene between the two world wars in six Arab countries - Egypt, Iraq, Syria, Lebanon, Transjordan, and Palestine - Matthews and Akrawi (1949:539) maintain that the quantitative progress in the education sector in Iraq had been "very great". That was evident in schools attendance, rising standards, establishment of higher education, and "positive advance" in education of girls, as well as sending students abroad for higher degrees. On the qualitative side, the changes largely concentrated on the curriculum.

During that period, advocation of change was part of the educational scene. The atmosphere was swaying with new ideas and opposed ones. In 1932, the American Monroe Commission was invited to assess the Iraqi educational system. The Commission studied the system and made several recommendations. The recommendations included decentralizing the educational services, reorganizing the Ministry of Education, introducing practical education, developing a flexible curriculum adjusted to different local needs, and stressing both preparation and in-service training of teachers. But the commission also

recommended giving more freedom to denominational schools, restricting secondary education, and abandoning the idea of establishing a national university (Monroe 1932).

The Monroe Report, however, was not without its contradictions as Simon (1986:90) notes. For example, the report acknowledged Iraq's diverse ethnic, religious and social components, yet recommended decentralization of the educational system. Therefore, the report was met with criticism from inside and outside Iraq. Al Husri criticized the report on several grounds but mainly on the justifications of a hastily prepared assessment by a foreign body alien to the culture of Iraq, and on the lack of understanding of the politics at work in the country. To Al Husri, the report essentially reflected the common trends of colonial thinking.

In 1934 a change of direction took place in education. Influenced by American education, those who held key posts in the Ministry of Education advocated an equal opportunity education oriented to life and to individual needs. That, in part, represented a challenge to the centralized system of education with its uniform curriculum. And although the issue might appear as a pedagogical conflict between two schools of thought, there were, in essence, not only "political" (Simon 1986:89) reasons but sectarian reasons as well behind that move. Hence, that call was faced with vehement opposition from the Arab nationalists in Iraq.

And again there was a change of direction in 1939 with the

rising of anti-British sentiments and actions among Iraqi army officers, political movements, and the masses. This time, the call was for militaristic education, and promotion of Arabism which were reflected in the taught subjects as well as in schools' activities (Simon 1986:87-88).

Akrawi, an Iraqi educationist who was assigned key posts in the Ministry of Education during the 1940s analyzed with Matthews the educational process of change between the early 1920s and the late 1940s (Matthews and Akrawi 1949:521-576). They note that Iraqi schools were formed on western models. The French, British, and American influences were apparent. The western models were not all suitable to the needs of the country, but they were the natural product of foreigners operating in the country and nationals graduated from western educational institutions. Along with that, there was a lack of "educationally trained personnel", and a dearth of "theorists" in the field of education who could reflect social needs in sound educational practices. In addition to that, the writers define an unsound evaluation system, inadequate educational administration, inappropriate school buildings, and absence of research centres as the major factors behind many of the problems of the educational system.

Elaborating on some of those problems, Matthews and Akrawi remark that there was a high percentage of illiteracy. Between 1942-1945 there was only 20% of the appropriate age group in primary schools. One reason behind that was an inefficient agricultural economy which "can not support a system of

universal education". Although a movement towards eradication of illiteracy began in 1922, it slowed down and turned out to be "routine" activities in evening schools.

The system of education suffered also from a high wastage rate in the primary cycle of education. The writers consider that as a process of "elimination of students" whereby the higher the grade the more dropouts or failures. Not only economic or social reasons were behind that situation, but also pedagogical ones. The curriculum was "unattractive", overcrowded with subjects, and irrelevant to the environment. Further, the methods of teaching were inadequate.

The academic type of general education was prevalent. Vocational education ranked low in status. And although there was a tendency among some educators to create a number of courses with a "vocational bias", that, however, remained as a thinking. Besides, fees for secondary education restricted access of students to that cycle though there existed a system of exemption on economic or on achievement grounds as well as a system of "scholarship" for students. Later, however, fees were abolished. As regards expansion of secondary education, there appeared to be no "clear-cut" policy. Admission to secondary education was based on passing a public examination at the end of the primary cycle. And in spite of the existence of private schools, these were opened for the well off.

Matthews and Akrawi maintain that though the quantitative side of teacher education in Iraq was in general not bad, the

qualitative side was in need for more thought and effort. The teacher colleges were inadequate places for preparing teachers of quality. That was largely due to the unsuitability of the taught subjects, and the lack of professional capacity of the staff at those colleges. Also, in-service training was unorganized and irregularly practised.

The system of examination was rigid. It acted as a selection mechanism. And it also influenced the curriculum, and directed the process of learning towards passing the examination.

Thus, in the late 1940s, Iraq - alongside the five Arab countries studied by Matthews and Akrawi - had not reached a national system of education which reflects the distinctive "character of a nation", and addresses "its past achievement, its present preoccupation and problems, and its future hopes". The major causes of that situation were that the system of education in these countries were new, that they were at one time under colonial rule, that they were highly centralized, and that they were irrelevant. The writers, however, assert that the Arab world after the Second World War was in a state of "profound change". They note that new modes of thinking and practices were replacing old ones in social, economic, political and cultural spheres. But change "involves strains and stresses and confusion". Therefore, the education system reflected "the same unsettled and inadequate picture" of life at that time.

In short, the closely connected features of that period were political instability, limited economic capacity, and feeble social development. Those were essentially the product of colonial legacy and continuous foreign designs. Although those conditions largely affected education, the Iraqi educationists were able to lay the foundations of the educational system, to gradually develop educational institutions, and to search for qualitative improvements.

1958-1968

The Monarchy was overthrown by the revolution of 1958 which was executed by army officers. The decade that followed the revolution witnessed significant changes. These included a republican system of government and dismantling of old political institutions, and a shift in political alliances towards the socialists and non-aligned countries. The changes also included land reform, expansion of social and educational services, and more direct control on the country's economy. In particular, there was a change in oil policy, economic planning, and the priorities of investment (Marr 1985:173). Although some of the economic changes were politically justified, they were economically miscalculated. The hastily nationalisation of major enterprises in 1964, for example, lowered their productivity and cause economic confusion. Using the same example, Stork (1982:27-46) argues that economic changes were formal rather than structural.

However, education underwent many changes which covered goals, structure, content, and methods. The expansion of educational services was great. The growth in the number of students enroled in all cycles of education, in school buildings, in teacher training colleges, and in the numbers of teachers and supervisors continued steadily. Higher education also expanded with the establishment of new universities. But although more funds were allocated to improve those services, "the advance in quantity was often made at the expense of quality" (Marr 1985:173).

Throughout that decade there were several political changes and coups which affected social and economic schemes. Niblock (1982:1-6) contends that "many of the new programmes and policies were ineffectively pursued due to the political instabilities following from struggle for power." That situation had its impact on the education system. The attempts to improve the educational services, marred by political confusion and instability, remained largely ineffective or inoperative.

1968 -

With the advent of 1968 Revolution, a new era has begun in the modern history of Iraq. For more than twenty eventful years now, stability has characterized the political scene in the country. The Arab Ba'th Socialist Party (ABSP) which led the Revolution has been "notable among Arab states, even among Third World states, for the degree of stability it has been

able to achieve amid ongoing socio-economic change" (Marr 1988:185-209). Further, the party has been able to sustain continuity at top levels of leadership. This has permitted "the accumulation of experience" which guides actions.

A basic issue in the political thought of the ABSP is "transformation". This concept connotes "a reawakening of certain aspects of the past, a striving for the internal reformation of individuals and of the community in all aspects of life" (Helms 1984:107). Working for the present and the future entails seeking the glorious past of the Arab nation as a source of inspiration. Further, the process of change depends on both the individual and the community. This necessitates redefining the relationship between them in terms of their responsibilities to each other, and attempting to alter their conditions.

Development, in the sense of promoting and improving all aspects of life, is central to the thinking of the ABSP. The ardent belief in development has "distinguished" the party from both Arab nationalists and Islamic movements. While the former often lack the capacity to develop a comprehensive social and political platform, the latter tend largely to apply their religious view of the world (Helms 1984:108). The party's belief has been matched by huge allocations of resources to development projects. For example, half the total of Iraq's budget, or about $19 billion were allocated in 1980 alone to development projects as Helms mentions in her book (p.196). And it is perhaps significant to note that certain major

programmes such as the revision of the Agrarian Reform Law, and the nationalisation of oil industry "had been on the agenda since the revolution of July 1958" (Stork 1982:27-46). It was not until the ABSP came to power that such programmes were implemented.

Industry occupies the highest place in development plans with a view to achieve greater self-sufficiency and to diversify economy away from being oil-dependent. This can be seen in the wider perspective of the party's keenness to attain unrestricted political independence. The trend has been to invest largely in "heavy industries such as iron, steel, aluminium, and petro-chemicals" (Marr 1988:185-209). Since the 1970s, industry in Iraq has experienced "unparalled growth". This has been mainly due to the country's ability acquiring "more of the essential industrial technology and of the necessary development planning techniques" with the help of the boom in oil revenues (Townsend 1982:256-271). In comparison to many oil-rich countries in the Middle East, Iraq has sought not to remain dependent on oil-economy, and to persistently broaden and strengthen its industrial base. Helms (1984:198) contends that Iraq has a "unique capacity relative to all other countries of the middle East for long-term economic and social development based on a non-oil economy."

Economic development has been supported by wide social development programmes. The emphasis has been placed on education and citizenship in an attempt to create "the new Iraqi man" (Helms 1984:120). Social development programmes

since 1968 has greatly expanded and qualitatively enhanced. Between 1970 and 1975, for example, expenditures in the budget on education and health were second only to expenditures on defence (Marr 1985:249). The social structure has been altered due to several factors which include a rapid process of urbanization, expansion of education services, changes in the occupational structure, and vast participation of women in the political, economic, and cultural life. Most of all the "socialist levelling policies" have played a vital role in changing the social structure of Iraq (p.270). But there have also been problems. Of these, the major problem is perhaps the rural-urban migration though this phenomenon started in the late 1950s (Stork 1982:27-46, Birks and Sinclair 1982:241-255, Marr 1988:185-209). Also, the improvement in the standards of living has created immense pressures on housing programmes and public facilities and services.

Rural development has also been one of the concerns of the government. Schools, health centres, road networks, and utilities have reached rural villages altering their "traditional isolation" (Stork 1982:27-46). Analyzing the process of rural development in Iraq between 1958-1975, Theobald and Jawad (1982:191-218) find that notable accomplishments have been made in several areas such as dams construction to control flood and store water, and gradual modernization of agriculture. Modern techniques have helped in increasing productivity as well as introducing new produce. The writers identify three major sources of difficulties in the process of rural development. These are "planning, the

peasantry and political instability". But they note that there have been structural changes in the first two sources, and that since 1968 the political system has experienced stability. Nevertheless, some writers think that deterioration in the agricultural sector which began in the late 1950s "has not been appreciably halted" (Stork 1982), and that the agricultural performance has been "unimpressive" (Birks and Sinclair 1982:241-255). According to the latter writers, the manpower problem or the decrease in agricultural employment which resulted from rural migration to the cities, has to be seen as the key factor behind such performance. However, they remark that employment patterns throughout the world show that "as economies develop there is an employment shift away from agriculture to industry and, subsequently, to services. Also, Theobald and Jawad (1982) argue that the process of modernization of the countryside is both complex and lengthy, and that the slow progress of the agricultural sector has not been far from the natural course of development.

Planning has been seen as an important tool to achieve development. Although planning activities started in the 1950s, they did not reach a high level of maturity until the 1970s. Since the 1960s, Iraq has embarked on central and comprehensive planning for a number of reasons shared by many developing countries. These include bridging the gap of development between them and the developed countries, and attempting to alter the deformation of the economic sector. Also, that trend has been enhanced by the experience of the socialist countries. In the case of Iraq, there have been

additional reasons: the choice of a socialist approach to development, the increase of oil revenues, and the existence of a large sector of the economy owned by the state. Those reasons have made it imperative for the government to intervene in order to expedite the process of development, to ensure coordination between various sections of the economy, to guard against unsound exploitation of both human and material resources, and to be in tune with the social philosophy of the ABSP (Ministry of Planning 1987:10-14).

Planning patterns in Iraq have been influenced by international as well as Arab experiences. Analyzing models of development planning used in Iraq, Wilson (1982:219-240) recognises Western, Soviet, and Egyptian influences on planning activities since the 1950s. The strength or weakness of a particular influence has been directly related to the political orientation of different governments at different times. Iraqi planners, however, have exerted efforts especially in the 1970s to find their own path to attain development, and to be more sensitive to the needs of the society.

The planning and implementation of development projects have not been without problems. Of these, the major one appears to be related to the process of decision making. In many cases this process suffered from bureaucratic procedures and inflexibility which consequently led to low economic performance. Two main reasons have been behind that state of affairs. First, decisions especially in the industrial sector were usually made by connittees set for that purpose. Although

committee decisions have been regarded as a collective opinion in tune with the political philosophy of "collective leadership", and as a protective measure against possible favouring of individuals or groups, the modes of work in committees were time-consuming, rigid, and obstructive. Second, decisions have, to a large extent, been politically influenced. This means that industrial decisions have largely been taken on political rather than purely industrial grounds. Those two reasons had negative effects on the economic performance of the country (Townsend 1982:256-271).

In 1973, the problems related to the process of decision making were mentioned in a paper prepared by the United Nations Economic and Social Office in Beirut (cited by Penrose 1979:150-169). Appraising the situation in the public industrial enterprise in Iraq before 1973, the paper indicated that many layers of decision making were behind inflexibility and loss of time. Thus industrial performance was neither efficient nor dynamic. This is why productivity in the industrial sector was the centre of intensive discussions in 1976 through a series of forums that were televised and widely reported in the newspapers. Top political leaders attended those forums and actively participated in the debate alongside heads of the industrial institutions, trade unions, and all relevant people. A working paper listed labour laws, administrative organization, inappropriate wage policies, inadequate incentives, and shortage of primary products as the major obstacles to sound industrial performance. Those forums deepened awareness of the problems of industrial performance

and resulted in measures which concentrated on promoting productivity. Wilson (1982:219-240) maintains that there has been considerable improvement in productivity of industrial projects, and consequently reduction of waste. To him, successful implementation of projects are "concrete examples of the achievements made" in the field of planning.

A major characteristic of Iraq's path to development since 1968 has been a consistent and earnest effort to pursue "practical forms of independence" (Helms 1984:118-119), and to secure sovereignty over its decisions. Political choices, and economic development policies can be seen within this framework. Rejecting forms of political dependence, reducing reliance on foreign expertise, insisting on training of Iraqis in any contract with foreign companies, attempting to develop other sources of wealth alongside oil, and diversifying sources of imports are examples that indicate a strong belief in maintaining independence.

Political, economic, and social changes in Iraq under the ABSP have been far-reaching. The process of "nation-building" is persistent and was "fairly successful" during the 1970s (Helms 1984:36). At different levels, the accomplishments are "real and laudable" (p.206), and are "profound and likely to remain" (Marr 1988:185-209). In Marr's words "Iraq in the 1980s is a very different country from what it was in the 1960s."

An account of Iraq's capacity to sustain internal and

external challenges would not be complete without referring to the episode of war with Iran. The eight-year war represents a major challenge to Iraq's existence, and to what the ABSP has stood for. While the effects of the costly war on both human and material resources have been immense, there have also been remarkable achievements of the first rate because of the war. Socially, and contrary to the calculations of many circles that a rife in the social structure would be inevitable, the conflict has produced "examples of intercommunal cooperation" (Helms 1984:32). Economically, Iraq adapted to the circumstances pertaining to the closure of its ports (i.e., inability to export oil) and embarked on "ambitious pipeline programme". Massive efforts were exerted to install pipelines to carry oil hundreds of kilometres to ports in Turkey and Saudi Arabia. That has given Iraq "considerable flexibility in exporting its oil" (Marr 1988:185-209). Throughout the implementation of that and similar projects, Iraq was highly conscious of the time factor.

The search for innovative solutions in various fields has been a phenomenon of the challenge of war. Rowe thinks that "war may accelerate getting scientific ideas into practical use by high-lighting needs". He also maintains that "when a need becomes known, it is often the case that science has a way to meet it. Further, war provides incentive to meet hitherto unknown needs" (cited in Havelock 1969:10-80). Evidence support this view in the case of Iraq. Townsend (1984:51-65) notes that Iraqi engineers "wrought small miracles of innovation" in repairing war damage to key installations, particularly power

generating facilities. Most importantly, Iraqis have been able to make notable achievements in the field of military technology, an uncommon feature in the developing countries. These include, for example, developing ground-to-ground missiles with various ranges (Time, March 21, 1988:29), fuelling jet fighters in mid-air, and developing a killer missile capable of destroying surface to surface missiles in mid-flight (The Guardian, Dec 1, 1988:12). Had it not made an earnest effort to strengthen its scientific base, Iraq would not have the capacity to put scientific ideas into practice. This effort has been intensified by the war, for war represents an ultimate threat to existence.

Iraq has met the challenge of the war and its effects. Most significantly, the war experience has produced positive thinking and practices through putting priority on efficiency, technology, and time (Marr 1988:185-209, Al Bustany 1984:66-80).

These political, economic, and social changes have influenced the shape and content of the educational system which we shall turn to in the following pages of this chapter.

The educational system in Iraq has undergone profound changes from 1968 upwards. The ABSP holds a new vision of the roles to be performed by both man and community, and consequently by education. To this vision, education plays an essential part in building up "the new man". Further, education is a means for making better future, for raising

material and cultural standards of people, and for contributing positively and effectively to the process of development.

Soon after the revolution of 1968, the Ministry of Education embarked on the task of reformulating the educational philosophy and general aims of education, examining the realities in schools, defining the constituents of a new educational policy, making the required administrative reorganization to carry out the new policy, and drawing up a long-term plan and a medium-term one to implement the new policy (Iraqi Ministry of Education 1985a:6). That marked the beginnings of the change process.

Between 1970-1971 three important educational seminars were held in Baghdad to translate ideas into workable formulas. Those seminars were attended by key figures and related personnel in the Ministry of Education, representatives from related ministries, selected educationists from the University of Baghdad, as well as leading educationists from the UNESCO Regional Office for Education in the Arab States. The first seminar concentrated its efforts on defining the basic principles of the educational philosophy and drawing up the broad lines of the educational policy in all cycles of education (Iraqi Ministry of Education 1970). The second seminar evaluated the outcomes of the first seminar, and studied the drafts of both the new law and the new Regulation of the Ministry of Education. It also examined issues such as universal primary education, training of administrators, curriculum development, preparation and training of teachers,

the possibility of introducing innovative alternatives to existing practices, and the problem of illiteracy (Iraqi Ministry of Education 1971a). And the third seminar delineated the steps to implement universal primary education, and to establish planning units in the provinces. As for secondary education, the seminar recommended expanding both general and vocational education, and finding new formulas to combine academic and practical studies in one school such as a comprehensive secondary school. The seminar stressed the need for improving the educational process through developing the curriculum, the training of teachers, the system of examination, and through the provision of adequate teaching materials and school buildings, and an appropriate system of incentives. Further, the seminar emphasized the importance of conducting research to improve the educational process (Iraqi Ministry of Education 1971b).

Those three seminars were well-timed, properly organized, and most of all politically supported. They were time-conscious in the sense that they were convened during a short period of time (between March 1970 and May 1971). And they influenced many of the subsequent changes in education. Between 1971 and 1978 a number of laws, regulations, and resolutions were passed and enforced. Those included the Law of the Ministry of Education, the Law of Compulsory Primary Education, the Law of the National Campaign for the Eradication of Illiteracy, the Regulations concerning the organizational structure of the Ministry, vocational education, teacher education, the examinations, and the Resolutions making

education free of charge, and increasing the scale of salaries of the teaching staff (Iraqi Ministry of Education 1979). At that same period many new programmes were introduced (e.g., the Manual Skills Workshops Project, the Pre-Vocational Education Project) or were about to be introduced (e.g., the Comprehensive Secondary School project).

There were notable quantitative accomplishments in the 1970s manifested in huge increases in numbers of students enroled in all cycles of education, and in numbers of schools, as well as numbers of teaching staff. And this trend has steadily continued in the 1980s. According to Marr (1985:261-263) education "experienced a virtual explosion". She contends that "Iraq may already have reached near universal attendance at primary levels". That process "has been hastened by a compulsory law passed in 1976, which has actually been enforced by the government". To ensure its success, that law was preceded by a Resolution passed by the government in 1974 making education free of charge at all levels. That Resolution represented both a political commitment to provide education to all children, and a measure to encourage low income families to send their children to schools. Those major changes were followed by a national campaign to eradicate illiteracy of the age group 15-45. Though the policy guidelines for combating illiteracy were set in 1971, it took nearly seven years of preparation to initiate the campaign in 1978. Political commitment, national mobilisation, and adequate funds coupled with the enforcement of economic and social sanctions supported by a law passed for that purpose, led to achieve satisfactory

results. UNESCO recognized the outcomes of the literacy campaign as "far-reaching" (Sousa 1982:100-108). Marr (1988:185-209) also asserts that the results in the field of education and eradication of illiteracy have been "striking". Figures may perhaps add sharp lines to the picture. Basing her statement on tables compiled by the World Bank, Marr states that "between 1968 and 1983, elementary school attendance more than doubled, from 1 million to 2.6 million; intermediate and secondary school attendance almost quadrupled, from 250.000 to almost 1 million; and university enrolment more than tripled from 37.000 to 122.700."

Education also witnessed, though not at the same level, qualitative changes. There were improvements in curricula, textbooks designing and printing, as well as teaching aids production. New subjects were introduced (e.g., practical subjects), contents of some subjects were developed (e.g., modern mathematics and integrated sciences), and new technologies were widely used in teaching (e.g., ETV, audio-visual aids, language labs, and science labs). There were improvements in teacher education. Teacher Training Colleges' curricula were revised, and new methods were used in in-service training (e.g., multi-medium training). There were improvements in evaluation of students. Examination regulations were reviewed, new testing methods were introduced (e.g., objective questions), and evaluation and measurement was introduced as a subject in both pre-service and in-service courses for teachers. There were measures of progress with regard to educational supervision, counselling and guidance,

and educational administration. School buildings were adequately designed and equipped making them more suitable to the requirements of the students and the learning process. Planning activities were largely improved with a consistent increase of qualified people filling planning posts as well as continuous in-service training schemes for those who worked in the planning units both in the centre and the provinces. Educational studies were increased with the increase of specialized seminars and forums on various educational issues. And a tradition of convening a yearly educational conference to review past experiences and to define prospects was established. In addition to that there was a shift from academic general education towards practical education, and more development in vocational and technical education. There was a move to make education more relevant to the needs of the country's development plans. In short, a number of innovative projects as well as new approaches were introduced. Mostly, they were on an experimental basis.

Large expansion in education inevitably carries its shortcomings. These came in various shapes: crowded classes, double-shift schools, inadequately trained teachers and supervisors, unsatisfactory teaching materials, etc. That led to practices which fell short of the expectations. Discussing the educational scene in the Arab countries as a whole in the 1970s, El Zaatari (1981:43-62) thinks that in spite of the quantitative and qualitative changes, education remained far from achieving the aims of comprehensive development, and bringing the change that can transfer the Arab society from

imitation to a state of innovative capacity. Education was still in need to be more effective and efficient, to radically change its objectives, content, and methods, and to be related to socio-economic development needs. Education was incapable of supplying the required people in various fields of work. Further, due to depending on rote learning and passivity on the part of the learners, education was unable to help the students to develop to their best potential, and to implant in them self-reliance and initiative.

The problems related to the expansion of the educational services coupled with the pressures of a speedy development process, and rapid changes in science and technology deepened awareness among educationists and politicians of the need for renewing the educational system. The search centred around projects and approaches which can improve educational practices and enable students to live in and cope with a changing world. Thus, towards the end of the 1970s, there was a strongly felt need for making structural changes in the educational system in order to be more efficient, more effective, and more equitable (The New Education 1979:25-70).

Alongside those internal influences to introduce innovative practices in the educational system in Iraq, there were powerful external influences. One of the major influences lay in high-level pan-Arab Conferences and meetings on education. The need for innovation in education, for example, was the centre of interest of an influential regional conference at the ministerial level. Organized by UNESCO and

the Arab League Educational, Scientific and Cultural Organization (ALESCO), The Fourth Regional Conference for the Ministers of Education and Economic Planning in the Arab Countries was held in Abu Dahbi in 1977. In its declaration, the Conference stressed that the Arab countries should double their efforts to renew their systems of education with the objective of reinforcing cultural identity as well as contributing to the process of development and modernization. The Conference recommended that the Arab countries should take the necessary steps towards renewing their systems in a way that responds to the spirit of modern times, to the particular requirements of each country, and to its socio-economic development. Further, the Conference indicated that in the desire for education to be in tune with the new trends, and believing that educational innovations in curriculum, teaching methods, teaching aids, and administration and organization necessitates benefiting from world-wide experience, it endorsed the initiative of UNESCO to establish an educational innovation network for the Arab countries (The New Education 1979). Thus, in its declaration and recommendations, that conference emphasized the significance of innovation to confront the problems of the educational systems in the Arab countries.

Upon those recommendations, and with the cooperation of UNESCO, The Educational Innovation Programme for Development in the Arab States (EIPDAS) was initiated in 1979. The programme which is a cooperative system operating mainly for the Arab countries, provides assistance with regard to carrying

out innovative projects and exchanging experiences among these countries as well as with other parts of the world. The ultimate aim of the programme is to bring about basic changes in the existing educational systems in order to be relevant to its societies, to be accessible to every individual, to be efficient in its course of action, and to be effective in the process of socio-economic development (The New Education 1979). The Basic Document of the First Regional Consultant Meeting of EIPDAS noted that innovative attempts in the Arab countries, in general, had not penetrated into the existing educational systems. Efforts, thus, should be concentrated on bottlenecks and weak areas related to internal and/or external efficiency of the educational systems. According to the Basic Document, these weak areas could be penetrated by well-considered innovative projects and activities. Six areas were defined as needing action. These included:

1. setting new formulas of basic education to all children especially the disadvantaged
2. reorganizing secondary education and linking it to work and production (need for new structures and contents)
3. using new ways in preparing technicians (need for the supply of the required numbers ensuring suitable quality and quantity)
4. promoting self-learning (need for alternative methods to rote learning)
5. modernizing educational administration
6. preparing and training teachers for new roles.

(The New Education 1979)

Many Iraqi innovative projects and practices fit - to a greater or lesser degree - in one of the six broad areas identified by EIPDAS as needing innovative solutions. For example, The Accelerated Schools Project can be grouped under the area of basic education; The Comprehensive Secondary School Project, The Pre-vocational Education Project, and The Productive Schools Project can be grouped under the area of tying secondary education to work and production (Iraqi Ministry of Education 1986a, El Kassim 1987b). I shall deal with these projects in chapter four.

Another source of influence which has created a strong tendency towards innovation comes from UNESCO. Alongside the importance attached to innovation since the early 1970s in all its programmes, UNESCO established a Regional Office for Education in the Arab Countries in 1973. One of the basic tasks of that office is to provide the Arab countries with technical advice, and to help them to renew their educational systems (The New Education 1979). Backed up by leading Arab educationists together with the long experience of UNESCO, the office has played a significant role in organizing training courses, arranging training visits, and holding continuous meetings, seminars and symposia on various educational issues with heavy emphasis on innovation. In addition to that, the quarterly review of education - intentionally named "The New Education" - issued by the Office has provided an essential source of information on educational innovations for many Arab practitioners, and has kept them in touch with the mainstream of thought of UNESCO.

And another significant source of influence comes from Arab regional organizations such as the Arab League Educational, Scientific and Cultural Organization (ALESCO) which was established in 1964. In a sense, ALESCO has not gone far beyond the path set by UNESCO in the field of education with an emphasis on the Arab cultural particularity. ALESCO, however, has practised an increasing influence at the Arab level since the early 1970s. Its efforts were culminated by laying down a strategy for the development of education in the Arab countries in 1979. That strategy was set by a team of notable Arab educationists on the basis of extensive interviews and discussions with those responsible for education in the Arab countries as well as field trips, official documents, and Arab and international studies. Taking the characteristics of the Arab society, its past heritage, present conditions, and future aspirations as a starting point, the team presented a detailed account of the possible paths towards an Arab learned society. In essence, the strategy attempted at achieving a comprehensive development through a concerted pan-Arab action with an emphasis on renewing and modernizing the educational systems in the Arab countries (ALESCO 1979).

In Iraq, as is the case world-wide, the internal influences pertaining to the problems of the educational system coupled with the external influences exercised by international and regional organizations, have created a drive to seek innovative practices in education. These influences have perpetuated the conviction that innovation can solve the problems of education.

The quality of education in Iraqi schools ranks high among the concerns of the Arab Ba'th Socialist party. Between 1-5 July 1981, the education sector was the subject of extensive discussions in a forum attended by the political leadership, key figures and heads of units in both the Ministry of Education and the Ministry of Higher Education and Scientific Research, related ministries and institutions, Iraqi educationists, and representatives of students and mass organizations. The discussions resulted in a document which defined the indicators and trends of the education sector for the years 1981-1985 (Iraqi Ministry of Education 1982a).

The document diagnosed the areas needing new measures and practices. These were conceived in a framework of policy trends which included integrating education with the development process, reducing centralization of the system, providing equal educational opportunity for girls and for rural areas, diversifying secondary education, and expanding vocational and technical education. They also included developing relevant curricula, sound teaching methods, and adequate teaching aids, emphasizing the value of work and production, deepening collective practices and positive values in students, and expanding the base of educational research.

As for innovation, the document stressed experimenting with new projects on a limited basis with a view to disseminate successful ones, and attempting to develop and produce educational technologies locally, and to import them only when necessary. The document also underlined the importance of

human resources, evaluation, and exchange of experience with the Arab countries to the process of educational innovation.

Many qualitative changes have been achieved during the period of war. Of these, the reformulation of the educational aims and objectives in 1982 was a notable effort. The aims and objectives were basically reviewed and formulated in the light of the values and positive practices embodied by the war. But they also reflected the ideology of the ABSP, the characteristics of the Iraqi society being part of the Arab nation, the Arab educational thought, and the international contemporary trends of educational thought. The reformulation process was the product of an intensive work led by the Ministry of Education with wide participation of educationists and concerned institutions. Also, that process was politically supported. The general aims cover the moral, political, economic, social, cultural, and pedagogic dimensions of the desired education. In particular, innovation constitutes the core of one of the twelve general aims of education. Emphasis is placed on developing innovative capacity simultaneously with strengthening national cultural identity. In addition to that, the change in the educational aims and objectives has necessitated corresponding changes in other areas especially the curriculum and teacher education (Iraqi Ministry of Education 1985a).

The economic, social, and political effects of the war has intensified the need for more efficient, effective, and equitable education. The basic educational policy principles

and indicators stressed integrating levels and types of education, continuing commitment to compulsory primary education, developing vocational education, strengthening democratization of education, and raising internal and external efficiency of the educational system. They also emphasized developing the curriculum with a view to promote both the scientific capacities and the social activities of students, reviewing educational legislations, and considering evaluation as a basic component in the process of reform. Further, the principles put emphasis on strengthening cooperation with relevant national institutions as well as Arab and international educational organizations (Iraqi Ministry of Education 1988a).

Alongside those principles, a number of practices have been encouraged by the Ministry of Education, and attempted by the educational institutions. These included stressing rationalized spending practices, productive practices in schools, imaginative solutions to constraints, and efficient use of both human and material resources especially time. They also comprised promoting national awareness and patriotic sentiments among students, and providing incentives to administrators, teachers, and students who achieve their tasks in a distinguished manner (Iraqi Ministry of Education 1988b).

Educational practices in Iraq during the period of war, then, has been geared towards reinforcing national and patriotic sentiments, emphasizing both individual and collective human endeavour, stressing the importance of

assuming new roles compatible with the needs of the country, and finding more efficient and effective ways to the use of time, money, and effort. The emphasis on efficiency, and on the value of time in that official document concerning policy indicators of education was clear. Further, that document delineated the path to be followed up to the mid 1990s. In other words, there has been a strong desire to institutionalize these trends, and to ensure that they become an integral part of the educational practices (Iraqi Ministry of Education 1988b).

In spite of the financial burden of the war (Al Bustany 1984:66-80), and the economic problems experienced by oil-exporting countries in the mid 1980s (The World Bank 1987:41-52), there have been no cuts in the total budget of the education sector in Iraq during the years of the war (Iraqi Ministry of Education 1988c). However, the yearly increase in the budget was not as high as the trend of increase which prevailed in the 1970s and the early 1980s. In addition to that, the steady growth in the numbers of students enroled in all cycles of education, teachers, and schools has continued. Also, the programmes of compulsory primary education and adult education have continued. All that necessitated putting emphasis on efficient use of resources in order to maintain a satisfactory level of educational service.

The Ministry of Education has exerted efforts to translate the need for efficiency into practices. Administrative and organizational changes were introduced (e.g., abolishing some

organizational units, merging similar or complementary units, balancing the numbers of employees with the requirements of units). Schools were encouraged to rationalize the use of material and human resources (e.g., mending furniture by teachers and students, restoring school to sound condition through voluntary work of the community). Educational plans were modified with a view to be more receptive to the economic priorities of the country (e.g., channelling more students to technical institutes). And individual or collective initiatives to find new ways of saving time, money, and effort were highly encouraged (Iraqi Ministry of Education 1988a). The search for innovative alternatives has not only been encouraged by the Ministry of Education, but most importantly it has been politically supported. The ABSP has always put an emphasis on "competitive achievement" (Helms 1984:97).

Problems have accompanied the attempts to implement innovative projects. Analyzing educational innovations in the Arab countries as a whole, El Kassim (1987b:31-33) maintains that the major difficulties and constraints centre around disservice or disadvantage to certain segments of the society, concentration on educational rather than social, psychological, or cultural aspects (e.g., lack of programmes related to rural development), lack of funds, lack of evaluation, limitation of experimentation, and lack of human resources. The relation between time, the major concern of the present study, and some of these and other problems and factors will be elaborated in the following chapters.

In this chapter I gave an account of the development of the modern system of education in Iraq, and dealt briefly with the political, economic, and social influences at certain significant points of time in Iraq's modern history. The quantitative growth has continued steadily reaching its highest level in the 1980s. And the search for more effective, efficient, and equitable education has also continued. The commitment to make qualitative changes has been relative to the political vision of different governments in different political eras. The broad political concern of the ABSP with education was and still is behind the notable accomplishments during the 1970s and the 1980s. In the next chapter I shall single out the issue of time - which in spite of its essentiality is not highly placed in the literature on educational innovation - and look into it within the framework of the complex process of educational change.

CHAPTER TWO

THE ISSUE OF TIME AND THE PROCESS OF EDUCATIONAL CHANGE: THE THEORETICAL FRAMEWORK

In this chapter I attempt to lay down the basis of the theoretical framework of the study. The chapter is divided into two sections. The first section shows time as one of the most significant factors in the process of educational innovation. It discusses the main explanations to be found in the literature with regard to the frequent occurrence of time underestimation. And it discloses that time is translatable into other resources such as money and labour, especially via the concept of opportunity cost. This denotes that an economic explanation to the problem of time underestimation is more likely to be firmly based.

The second section attempts a synthesis of the main aspects of the process of educational change based on major research in this area. It also tries to convey the impression that the process of educational change is a complex social phenomenon, that it is inevitably lengthy, and that it needs money and effort. Further, this section emphasizes that time is only one factor in a wider process which involves many factors of no less significance.

1. THE ISSUE OF TIME

Time is a highly significant element in the process of educational change. The process is lengthy. Analyzing studies conducted in the late 1930s on the adaptation process of innovations in American schools, Mort (1964:317-328) concludes that the time needed for innovations destined for general acceptance is typically long and measured in terms of decades. He maintains that there is a lapse of a half-century between recognizing a need, and introducing a way to meet that need. And another half-century is required for full adaptation. This means that a century is needed for an innovation to be fully adopted by the system. That is, in Mort's words "an extravagantly long time." Though this was perhaps the case indicated by the studies that belong to the late 1930s, the rate of change has accelerated thenceforth (Miles 1964:1-46, Havelock 1969: ch.10, Huberman 1973:33-34). Fullan (1982:53) cites evidence from a study conducted in the early 1980s by Crandall et al. that the length of time, from awareness to adoption, and from the adoption decision to start up, is measured in months. After that, things proceed quickly. But this does not mean that the innovation will actually be implemented and institutionalized. Hence, apart from the number of years estimated by Mort, the point has been made: innovation takes time. At the end of her book on evaluating educational innovations, Hord (1987:164) emphasizes that her single message is that "innovation and its successful implementation TAKES TIME." (Hord's capital letters).

The rate of diffusion or the time needed for the adoption of innovation, according to some writers, is influenced by certain factors. Mort (1964:317-328) thinks that the degree to take on new practices is related to community and population characteristics. Rogers (1962:134) maintains that advantage, compatibility, complexity, divisibility or trialibility, and communicability can have a major effect on the rate of adoption of innovations. Although singling out the five attributes by Rogers may appear "arbitrary" (Hurst 1983:44), the presence of certain characteristics of the innovation would affect the length of time required to adopt it. On the other hand, the process of adoption needs time even if these characteristics are met. In addition to that, the "timing" of an innovation is important. Havelock (1969: ch.10) quotes a number of researchers who emphasize the influence of timing on adopting innovations.

Time influences decisions to embark on a particular model of change with a view to "accelerate the passage from decision to application" (Huberman 1973:93). This is also the case with regard to strategies for change. Using different tactics and procedures to implement change means using different time-frames. Strategies which depend on individual initiatives need longer time. On the other hand, in centralized systems of education, the introduction of innovations can be speeded up by using strategies which rely upon reward and punishment. The same point has been made by many researchers on educational change. For instance, Hord (1987:63) analyzes "top-down" versus "bottom-up" change and states that "the price of

spontaneity may be an inordinate amount of time spent waiting for it to occur." This means that bottom-up change takes much more time than top-down change.

In spite of its recognized importance, time is a neglected factor in practice. Fullan (1982:68) asserts that "time perspective is one of the most neglected aspects of the implementation process." This state of affairs prevailed, and has changed only slowly since the early 1970s due to the emerging emphasis on implementation. However, insufficient time appears to be behind many of the problems that beset implementing educational innovations. It even amounts to a major barrier to implementation. Fullan (1982:293) stresses that "the single most frequently cited barrier to implementation is lack of time." Support to Fullan's assertion comes from many sources. Studying several educational innovations in OECD countries, Dalin (CERI/OECD 1973: Vol.4. 228-229) notes that "many of the 'barriers' which have so typically been exposed in the case studies reflect merely a need for more time rather than anything else." Maclure (1985:11) remarks that "the time-scale for any major change of education in the education system adds to the difficulty of engineering change." Nicholls (1983) also maintains that the time factor is one of the difficulties associated with innovation. She notes that there are two aspects related to this issue: the time needed for planning, and the time required for carrying out the planning. And it is perhaps appropriate to recall the two famous case-studies by Gross et al. and Smith and Keith. Gross et al. (1971) emphasize "timetabling" as an

organizational problem which hindered the implementation of innovation. Smith and Keith (1971:131) observe that "time and energy appear and reappear as underestimated expenditures of limited resources."

In short, insufficient time has resulted in "undesirable compromises" (Dalin 1978:30), in paralyzing schools' responses (Maclure 1985:115), and in inadequate logistical support: delays in providing materials, inadequacy of training programmes, and inappropriateness of communication channels (Fullan 1982:68).

Time, thus, is underestimated in planning for and carrying out innovative projects. But what are the reasons behind this underestimation? Political pressures appear to play an important role with regard to this issue. Fullan (1982:68) thinks that it is inconceivable for politicians to accept long time frames in order to see the fruits of innovative projects. In fact, Dalin (CERI/OECD 1973: Vol.4. 228-229) made the same point nearly ten years earlier. He asserts that "most decision makers do not take this particular need (for more time) into consideration. On the contrary, many systems seem to operate under the ideal of as many 'results' as possible in the shortest possible time."

Political pressures to shorten the process of educational change, and to achieve quick results are clearly evident in developing countries. The main possible reasons include the need to alter irrelevant systems of education (especially after

independence), the need to attain economic growth, and the availability of outside assistance (Havelock and Huberman 1977:71-72). Though sustained political commitment by political leadership appears to be a factor for success of reform, this implies that the normal time allowed for changes to be planned and implemented may often be too short (Simmons and Anderson 1983:399-431). Urgency to speed up educational change is also evident after change in the political system. New political systems often hold a different vision of education from that of previous systems. All this makes it imperative to feel the results of change in schools in a short time. In a sense, the results represent a justification for the human and material cost of change, and a legitimization for the political system.

Another explanation for time underestimation in planning and implementing innovative projects, that can be inferred from the literature, is ignorance. People do not fully perceive the significance, or they are not sharply aware of the character and nature of the time factor. They appear to be unprepared, perhaps through inexperience, to consider time as a factor that can decisively affect other factors in the process of educational change. Projects are often initiated with the confidence that solutions are easy to arrive at, and that factors involved in the change process, including time, can be manipulated and controlled. But evidence cited in the literature indicates that the cases of failure exceed those of success (for example, Dalin 1978:3, Fullan 1982:288).

Part of the problem appears to reside in people's impotence to find a solution. Fullan (1982:68) thinks that the problem of time cannot be solved, thus it is ignored. This suggests that people are powerless in facing the problem, so they intentionally disregard it. But this also indicates that innovative projects will always suffer from insufficient time because its cost is high and there are too many tasks to be performed (p.292). Further, and apart from the level of knowledge of the change process, each genuine project has distinctive characteristics which make it almost impossible to accurately predict its requisites along different points of time. This includes the different amounts of time needed for carrying out different activities. By its nature, an innovation has an element of vagueness. In a sense, then, attempting to introduce an innovation appears to be attempting a journey into the unknown. For these reasons, it is highly likely that ignorance constitutes another explanation for time underestimation.

How much time does the process of educational change need? Attempting to present a general image of the change process, Fullan (1982:40-41) depicts a four-phase diagram which includes initiation, implementation, continuation, and outcome respectively. The interaction between these phases is represented by two-way arrows which imply that the process is not linear. He maintains that the total time perspective defies precise demarcation. Implementation, for example, can take two or more years. Fullan contends that, under any circumstances, the total time-frame from initiation to

institutionalization is "lengthy". And this even applies to moderately complex changes which take from three to five years.

But how can time-frames be best allocated? Some researchers advocate longer time-frames. Discussing issues related to developing a school improvement plan, Crandall et al. (1986:21-53) are in favour of locating the effort within "a long-range plan". Hord (1987:165) stresses that "in matters of time allocation, it is perhaps preferable to err on the side of excess." But other writers support a middle stance with regard to time allocation. Fullan (1982:69) thinks that leaving time lines "open-ended" would not solve the problem because this may lead to vagueness as regards the project's progress. To him, the adequate time-line, therefore, should be "neither unrealistically short nor casually long." But of course this is all easy to advocate and very difficult to apply. Both these extremes are more probable to be found in practice than a well balanced approach. Nevertheless, in the current economic situation, systems of education cannot afford costly longer time-frames for innovations.

Time as we have seen in the previous pages is a highly important factor in the process of educational change. It influences the adoption process. It also affects decisions to embark on a particular change model or a strategy. Lack of time is, thus, considered a barrier to implementation. The total time-frame for an innovative project from initiation to institutionalization cannot be precisely demarcated. At any rate, it is lengthy. For this reason, many writers prefer

longer time-frames for the implementation of innovation.

But in spite of its importance, time appears to be a neglected factor. Innovative projects often suffer from insufficient time. Time, in other words, is underestimated. Further, the problem of time underestimation occupies a little space, relative to its importance, in the literature. As a result of this, and perhaps because of it, the issue why people underestimate time is doubly neglected.

The literature on educational change, however, emphasizes one particular reason behind people's underestimation of time: political pressures or impatience to see quick results of change. Another reason, which can be inferred from the literature, is ignorance or inexperience. Still, these two reasons appear to offer part of the explanation to the problem of time underestimation. This is what the present study attempts to investigate. But before that, I shall look into additional explanations offered by disciplines other than education.

A Sociological Viewpoint

Sociology offers an explanation of the conception of time in social systems. From a sociological standpoint, time is closely related to social systems. Societies and cultures - through human activities, experiences, and interactions - have identified what is called the "social time" as distinct from the "physical time". The social time represents a means

through which social processes can be specified and measured. And it corresponds to the characteristics of each society (Gardet et al. 1976).

Also each culture has certain core values. Time is strongly related to these values because it organizes and regulates the patterns of social behaviour. Therefore, societies and cultures differ in their scheduling and allocating of time as part of their view of the world. In other words, different societies and cultures have different time perspectives. Hence, "traditional" societies and cultures have a pattern of attitudes towards time which is different from that of "modern" ones. While the former attaches great importance to the past, the latter's concerns are located in the present and the future (Gardet et al 1976, Deva 1984:197-202).

In the same vein, but with the main theoretical premiss stretched too far, a study on the influence of cultural values on the use of time was conducted in Iraq (Alwan 1981). The sample of the study was drawn from both male and female workers in a state-run industrial establishment for electrical appliances. Four variables (sex, age, schooling, and social descent) were selected to test the hypothesis that there is a strong relationship between traditional cultural values and the misuse of time. According to the writer, the analysis of the responses of the workers, gathered by means of a questionnaire, revealed that males misuse time more than females, that the misuse of time increases in proportion to advancing in age,

that the misuse of time decreases in proportion to increase in years of schooling, and that the misuse of time is more apparent in groups of rural descent. Upon that findings, the writer concluded that the hypothesis is correct.

Apart from the analysis of the data which can be interpreted differently[1], the relation between certain variables and time factors has been established in sociological and psychological research. Orme (1969:6) maintains that "it can safely be assumed that there are time factors related to such variables as age, sex, social class and culture, intelligence, personality, mental normality and abnormality." But these are correlations not causes. That Iraqi study takes some of these correlations as the causes behind a certain human behaviour (i.e. misuse of time) in a particular culture. To deduce generalizations out of correlations is unacceptable and misleading. It indicates an erratic methodological stand in social studies. Further, that study essentially implies a view of the world which has been challenged and refuted.

Cultures differ in their attitudes towards time (Gardet et al. 1976). But to place "traditional" culture against "modern" culture, and to assume that the former is inferior and the latter is superior with regard to valuation of time, is both an incorrect and misleading polarization. This is basically what the above mentioned study could not evade. It falls into the dichotomy: traditional/modern, and corollary developing/developed countries. The major notion about the relation between traditional values and the misuse of time is

reminiscent of claims by some social scientists like Max Weber (cited in Aguessy 1977:93-105) and later Lerner (1958), and Doob (1960) that modern societies have attributes totally opposed to that of traditional ones. While the theorists who advocate the use of dichotomies might argue about the advantages of such a practice in helping to understand the complex phenomena, the fact is that focusing on two possibilities and excluding all others is a serious limitation and cannot represent complex social phenomena (Renihan 1985:121-134). In his review of the literature on the process of change, Hurst (1983:27-31) presents forceful evidence from different disciplines which falsifies the distinction between "traditional" and "modern" societies with regard to "conservatism". Further, this distinction perpetuates a sense of inferiority on the part of developing societies. For it implies that there is an ideal or a model (modern society) to be reached, but at the same time there are innate characteristics in the "traditional" society which prevent its movement. Also, such distinction is ethnocentric.

Differences in attitudes towards time do not mean that some societies or cultures have the only valid perspective on time (Aguessy 1977:93-105). It appears that socio-cultural systems utilize time in a manner that corresponds to the conditions which influence their environment (Gardet et al. 1976). This applies to both agricultural and industrial societies. In addition to that, cultures are interrelated in the sense that they can no longer be isolated from outside influences. In a study on the empirical apperception of time

among the people of the Arab Maghreb, Meziane (1976:214-227) finds that this process "cannot be entirely local". A large part of these people's culture, whether in the oral or written forms, is drawn from the world cultural heritage. This is the case even for the people who live in rural isolation. The apperception of time, thus, draws on several sources "from the affective to the rational, and from ancient agricultural practices to modern technology." But how can the rhythm of agricultural activities be explained? It appears pointless to assume that such a rhythm is a built-in temporal pattern of peasant life, because time apperception is blurred by the daily rhythm of religious life. A clear example is that both the town dweller who rationalizes time and the peasant share those apperceptions which are determined or influenced by "the religious consciousness." Therefore, Meziane asserts that the stress on the distinctive characteristics of a particular culture or group in relation to others with regard to time apperception must be avoided.

The Religious Experience and Time

This brings us to the relation between the religious experience and time. More specifically to the issue of whether the relation between a particular religion and time acts as a constraint to people's participation in present-day life. Analyzing the views of Islam - the religion which the great majority of the Arab countries subscribe to - on time and history, the French Christian philosopher Louis Gardet (1976:197-214) contends that the Islamic view shows a high

appreciation of the time factor. Islam views time as "a discontinuity composed of discrete instants, whereby the sense of homogenous duration is made relative." The apperception of time is embodied in "fragmentation of instants and the relativity of temporal successions." This view has its basis in the apperceptions of time of the Arabs in ancient time. But what does this view denote? According to Gardet, the temporal and spatial "atomism" might be considered an implicit anticipation of the space-time continuum and of its relativity. Thus, he concludes that this view of time is not, in any way, incompatible with present-day scientific theories and models, and consequently the receptivity of the Islamic culture to "modern" influences.

However, at another level, many thinkers have resented the pressure of time on "modern man". Wessman and Gorman (1975:3-55) note that "modern man resents coercion of the clock. Pressured and harassed, he longs for the temporal unconcern apparently found in 'simple' ways of life. Much of the counter-culture search for Nirvana and rejection of the 'rat-race' seems to be a rebellion against temporal constraints and pressures." Also, the dimension of technology of this issue is sharply brought up by Elton and Messel (1978:102-104). They think that the dilemma of "modern" man lies in becoming the "slave" of time in his endeavour to master it. To them, the answer is not to retreat from technology but to make it "our servant." But is this possible? The writers maintain that "there is increasing evidence that technological developments have a life of their own."

It becomes clear from the previous pages that socio-cultural systems differ in their attitudes towards time in a manner which corresponds to the conditions of their environment. And it seems futile to label some societies as "traditional" and others as "modern" implying that the latter are superior or better than the former with regard to the use of time. There also appears to be no strong evidence that agricultural societies value time less than others. Brandon (1951:44) points out that historical records which date from the third millennium B.C. in Mesopotamia "reveal in a striking manner a maturity of appreciation of the time factor on the part of the Sumerians which must necessarily have been the product of long centuries of development." Further, the religious experience of the Arab part of the world is not in conflict or contradiction with the present-day life's view on time.

That aside, socio-cultural factors provide valuable contribution to the understanding of complex phenomena such as the effects of the process of socialization on experiential orientation towards time, and the change in the shape and content of time in relation to age. Although there is lack of strong evidence that some of these factors cause people to underestimate time, socio-cultural factors constitute an important part of the analysis of the issue of time.

An Economic Explanation

Now we turn to an economic explanation of the problem of time. Not only that such an explanation constitutes a highly significant aspect of the problem, but it also appears to be imperative because education, since the mid 1970s and particularly in the 1980s, is in a period of global "economic crisis". This is manifested in decrease in international trade, imbalance of payments, increase in debts, stagnation of GNP, inflation, conditionality on loans, reduction in aid, etc. These factors have largely affected the public financing of the education systems. However, the solutions offered to meet the crisis - such as recovering costs from users, reallocating resources, decentralising the management of public education, and the like - basically focus on adjusting the educational systems in the direction of greater efficiency (Psacharopoulos et al. 1986, Carnoy 1986:203-214, Lewin 1986:215-230, IDS 1989).

Scarce resources, thus, ought to be allocated in an optimal manner. Choosing optimal allocation of resources necessitates measuring the costs in monetary terms. Further, making a decision to spend money or to use resources on a particular project means forgoing the opportunity to use those resources on an alternative project. This is what economists call "opportunity cost". To economists, "costs" normally mean opportunity costs not only direct monetary expenses (Baumol and Blinder 1985:16). Making a decision to have more of something is simultaneously a decision to have less of something else.

Therefore "the relevant cost of any decision is its opportunity cost" (p.36).

Educational opportunity costs are those costs which incurred as a result of educational decisions (Mace 1979:15). Some economists, however, are disinclined to rely solely on the opportunity cost as a basis for making a decision because "it fails to account for the relative qualitative outcomes of two alternative educational programmes" (Fielden and Pearson 1978:30). Further, the "income forgone" is not the same for individuals as that for the whole community in the case, for example, of choosing to go to college instead of the labour market especially in periods of underemployment. In any case, Hallack (1969:19) contends that the opportunity cost should, in principle, be included in costs calculations.

While the frequently cited example of a student going to college instead of working thus forgoing earnings is explicit, opportunity cost can be implicit as well. Waiting in line for a free service means that "you incur an opportunity cost equal to the value of the next best use of your time" (Baumol and Blinder 1985:36-37).

Time, thus, is considered as one component of the costs of education. Time can be measured in days, man-months or percentages of a man-year. These "basic units" can be converted into a financial figure. Calculations of resources may be expressed in two ways: in a basic unit such as 1 1/2 man years for a senior lecturer, or in money terms such as £10,000

of staff time. Many people, however, prefer resources to be expressed in basic units rather than in money terms (Fielden and Pearson 1978:32-33).

But the problem with time is that it has many facets and comes in various forms. For instance, in the case of introducing a new educational project there are: the time-frame of the project which may differ according to the perspective chosen, staff time required to implement the new practice and the time needed to train them, time to prepare and/or to provide the teaching materials and equipment, the time of the students, and the like. At any rate, details are easier to be put on paper than to be worked out or calculated in an accurate manner. Paradoxically, this amounts to consuming more time during the planning stage. To be precise and useful, cost analyses demand thought and long time (Fielden and Pearson 1978:25).

The calculation of time has yet another problem. An innovative project certainly needs time to be carried out and institutionalized during which the value of money changes. It is a fact that the value of a sum of money decreases over time. Not only that, but keeping the same sum of money in a bank for a fixed period means receiving it later plus a net compound interest. For this reason, the calculation of cost, to be accurate, should be based on discounting cash flows which means that "future sums are reduced to the current sum which would have to be invested to produce the future sum" (Fielden and Pearson 1978:34). This is applicable to those educational

activities where a large degree of quantification in money terms is possible. On top of that, there is the problem of inflation which should also be taken into consideration in analyzing the financial content of a project (pp.34-35).

All this indicates that time has a real cost affecting each component of a project. But time represents a very difficult challenge to planners if they will opt to embark on analyzing its many facets in monetary terms. To take the time-frame as an example: an innovative project may need a pre-planning phase, a planning phase, and perhaps a pilot experimental phase. Each phase's time, and consequently the total time of these phases differs largely from one project to another in accordance with the project's type and size. The problem with time, however, does not reside solely in the difficulty of precise calculations. There is the unsolvable problem of facing parts of the project which defy quantification and consequently conversion into monetary terms. For instance, while the time needed to train a limited number of teachers to master certain skills can be expressed in financial terms, the time for a genuine change in the behaviour of students to show up as a result of that training cannot be quantified.

Apart from the difficulty of precise calculations of time, the opportunity cost of time indicates that it is highly probable that the time to be spent on planning and implementing an innovative project can otherwise be used productively in another area. That time can be utilized to introduce another

project, or to solve the problems of an existing project and so forth. The cost incurred as a result of making a wrong choice amounts, thus, to a double cost.

"Time is money" is a common phrase which sums up the value of time by equalizing it with money. It indicates that time is precious, and can be spent or spared like money. But to what extent can there be a trade off between time and money? Money can, to a large extent, facilitate the choice among better alternatives. Money can generate enthusiasm of people to spend extra time and energy in performing the required tasks. It can provide better equipment and appropriate buildings and the like. And abundant money can give power and control over things, thus, can mitigate the pressure of time. On the other hand, time gives gradual development, manoeuvrability, and a margin for corrective actions. Hence, it appears that there is a trade off between time and money. Money "buys" some time. But money, even abundant money, cannot achieve overnight development. In other words, money is not a full substitute for time but it is a reward for labour (i.e., overtime).

Time and Entropy

The cost of time has yet a physical and biological dimension related to the concept of "entropy". The relation between entropy and the process of change and consequently time necessitates an account of the Second Law of Thermodynamics. This will be attempted briefly.

While the First Law of Thermodynamics states that "heat and work are two mutually convertible forms of energy", the Second Law of Thermodynamics stipulates that "heat never flows unaided from an object at a low temperature to one at a high temperature" (Duncan et al. 1960: ch.9). The First Law shows us that energy remains constant. The Second Law shows us that it is impossible to obtain a complete conversion of heat into mechanical energy without leaving a "change" elsewhere. In other words, the First Law asserts the conservation of energy. The Second Law asserts the existence of a quantity which cannot be conserved but tends to increase. This quantity is called "entropy" (Denbigh 1975: ch.2).

According to the Second Law, entropy increases in irreversible processes. These are the processes which take place in the one direction and not in the reverse such as the flow of heat from hot to cold bodies, the mixing of hot and cold gases and liquids, chemical and nuclear reactions, and the emission of radiation by the sun and other stars. These processes cannot completely be reversed, except in "open"[2] systems which import energy from outside to reverse entropy increase.

Entropy is a property of matter related to the amount of energy that can be transferred from a system (i.e., a physico-chemical entity such as a mixture of gases, or a living cell) to others in the form of work. One interpretation of entropy is that a natural process causes a system to "distribute" or "spread" itself in the most random manner over all the

microstates available to it. Also, entropy can be interpreted in terms of "disorderliness" which means the departure of a system from some defined state of order (Danbigh 1975:69-70). For example, if we shake a box of matches where all the heads point to the same direction, the orderly state of matches will turn into a state of disorderliness with the heads of matches pointing at different directions. This means that the entropy has increased because the state of disorder has increased.

Because entropy increases in all spontaneous or irreversible processes, it is considered a measure of the "irreversibility" of a process. But irreversibility has a "degrading" effect on the energy available because when a quantity of heat is transferred through a finite temperature difference, its usefulness becomes less until reaching a point where no mechanical work or energy can be developed. Therefore, entropy can also be considered a measure of the "degradation" of energy (Duncan et al. 1960: ch.9).

Isolated or "closed" systems tend "naturally" to a state of degraded energy. Non-isolated systems, on the other hand, tend to produce the least amount possible of entropy in order to conserve energy and not to waste it (Hurst 1976: ch.3). Continuous increase of entropy in a system means its end (Wit-Hansen 1977:243-256), or death in the case of biological systems. Hence, to reduce entropy or to conserve energy is seen as sound adaptation, and to waste energy is maladaptation. Any system producing less entropy without an external supply of energy would constitute a violation to the Second law. What

appears to be physically and biologically true is also socially applicable. Social systems, by virtue of their biological base, must import energy in order to offset entropy increase.

But how is this related to the issue of time? The strong and direct relation between change and energy (Hurst 1976), and between change and time (Denbigh 1975) is established in science. In a sense, time is one of the facets of energy. The Second Law implies a "direction" (i.e., temporal because the processes in question are irreversible) of the usefulness of energy. Further, time has a "one-way-only" character. The elapse of time (time's arrow) is an irreversible process (Denbigh 1975: ch.1). To limit this argument, time for humans is not infinite. Therefore, it is perhaps not unplausible to posit by analogy that human systems tend to conserve time and not to waste it in order to reduce entropy. Clear evidence of this tendency can be discerned in man's vigorous effort to fight the process of ageing. Similarly, the development of social systems takes place in a context of finite resources of time and human energy.

The implications of this tendency are highly important to this study. Time is limited. To conserve time is a sound adaptation to nature, while wasting it is a maladaptation. Wasting time is equivalent to creating entropy. In short, the cost of time is extremely high. The concept of entropy provides a firm basis which supports the need for an efficient pattern of behaviour with regard to the use of time.

But is it not a contradiction to attempt to reduce the cost of time, and to consider "underestimation of time" as a problem? The answer is no because innovative projects which suffer from insufficient time may end up wasting human energy and money without achieving their objectives. In any case, the overall cost of a failed project cannot be expected to be lower than the cost of providing more time initially to such a project.

Thus it appears that the argument of the opportunity cost of time, and that of the entropy make a strong case for an efficient utilization-pattern of behaviour. This is imperative especially for the developing countries which suffer most in the current economic crisis, and which, in many respects, are falling further behind the industrialized countries as time progresses.

2. THE PROCESS OF EDUCATIONAL CHANGE

A Definition of Innovation

Definitions of "innovation", in most cases, are not neutral. They carry ideological stances.[3] And though many of the definitions tend to be variations on the idea of altering a previous practice by a new one, writers differ in stressing certain aspects or elements of the process of innovation in accordance with their political perspective. They also differ on the issue of whether change is something to be planned, or to be "attempted and endured" (Hurst 1983:55).

Some writers differentiate between "innovation" and "change" in terms of intent: innovation is something planned and deliberate whereas change is spontaneous (Miles 1964:1-46). Other writers distinguish between "innovation" and "reform" in terms of degree while they use "innovation" and "change" alternately (Adams and Chen 1981:223-224). And others prefer to make no distinction, and to use the terms "innovation", "change", "renewal", and "reform" interchangeably (Dalin 1978:20).

In this study I conceive of innovation as an effort to carry out educational activities in a more effective, efficient and equitable manner. This does not imply that innovation should be utterly something new. For innovative practices can be borrowed or adapted (e.g., the comprehensive school, the educational television). They can also be synthesized out of common practices (e.g., the resident supervisor combines the

role of the headteacher and that of the supervisor together).

This conception of innovation also does not indicate that innovation is something good for everyone involved. Education is political (Kogan 1978: ch.1), and basically, the process of educational change involves political choices (House 1974, Becher and Maclure 1978, Dalin 1978:74). It is an arena where centres of power and interests intersect. This is especially intensified in the case of introducing change because it necessitates rearrangement and redistribution of those elements.

Also in this study I tend to use "innovation" and "change" interchangeably.

Theories of Change

Seeking to delineate the total range of theoretical perspectives that have been used to support educational reform strategies, Paulston (1976) distinguishes between two social change paradigms: equilibrium and conflict. The equilibrium paradigm comprises Evolutionary and Neo-Evolutionary theories, Structural-Functional theories, and Systems models. The conflict paradigm includes Marxism and Neo-Marxism, Cultural Revitalization, and Anarchistic and Utopian theories. In general, equilibrium theories advocate gradual evolution, and emphasize a consensus perspective. In contrast, the concerns of conflict theories centre around the conditions of structural change, and the part played by different interest groups in

conflict over power and values. In this typological review of the literature on educational reform, and in a later updated version of the text (Paulston 1983:21-70), the writer emphasizes a serious lack in the literature with regard to the issue of power and ideology. Paulston also maintains that some researchers and organizations are caught in the dilemma of using the irreconcilable world views of opposing theories at the same time. Thus he concludes that there is a need for a dialectic viewpoint drawing on both the equilibrium and the conflict paradigms.

Dalin (1978:60-66) accepts Paulston's distinction between equilibrium and conflict theories, but he adds another category which he calls "Eclectic" theories. He argues that the eclectic stand views change in social systems as "a change in human personality". Dalin sees "sensitivity training", "psycho-social therapy", and "training laboratories" as practical applications of this "tradition". To him, this tradition, to a certain extent, aims at clarifying conflicts rather than building consensus. However, he contends that the orientation of this category depends on the strategy to be used.

Simmons (1983a:3-19) also adopts Paulston's two paradigms in describing the nature of educational reform in a number of developed and developing countries. Although both paradigms appear to have their limitations, Simmons concludes that empirical evidence favours a conflict theory. This means that there is a genuine need for systematic examination of the

conditions of conflict and the role of power in any analysis of educational reform (Simmons and Anderson 1983:399-431).

Hurst (1983:21-24) divides theoretical approaches with regard to acceptance of innovation into two distinct paradigms which he labels "control" and "change". The control paradigm comprises two approaches: Systemic or Structural Analysis and Diffusionism. It sees an innovation as "a process of adaptation and adjustment by which the social system seeks to maintain control in order to survive." Under the change paradigm there are also two approaches: the Conflict/Dependency approach and the Phenomenological or Situational Analysis. These approaches look upon change as a political process, and hold that individuals and organizations with different ideologies or values may resolve their differing points of view through conflict or negotiation.

It appears that it is beyond any single theory to fully account for the complex phenomenon of educational change. Also, in spite of the analytical power of the conflict theory, there is little to support the idea that attempting to combine the different views of the world in one theory would capture the dynamic nature of this social process. However, a rather painful position with regard to the theories of educational change in many developing countries lies in using a certain conceptual framework for analyzing problems, and making yet different assumptions in practice. Conceptually, innovative projects may well end up with an unwarranted mix of incompatible assumptions: some sort of a hybrid. This might

be partly attributed to inability to accommodate and assimilate the assumptions embedded in the theories, and to make use of them in a manner corresponding to classroom and environment particularity. Also, the theories of change are largely Western-based.

Models of Change

Attempting to translate the theories of educational change into practical applications, researchers develop models. A model is a simplified version and, to a certain extent, a distorted image of reality. None the less, a model is needed to study a certain phenomenon or process in a systematic way.

Three models of change which have been categorised by Havelock are well known in the literature on educational change. These are: The Research, Development and Diffusion (RD & D), The Social-Interaction, and the Problem-Solving. Briefly, the RD & D model assumes a rational sequence which includes research, development, packaging, and mass dissemination. The Social-Interaction stresses the process of diffusing the innovation to a social system and the role of social relations networks as well as personal relationships. And the Problem-Solving model assumes that innovation is a part of a problem-solving process inside the user which begins with a need, and ends with the satisfaction of that need. Havelock also introduces a fourth model which he calls the "Linkage" model attempting at unifying the three processes in one (Havelock 1969: ch.11, Huberman 1973:61-65, 70-84, Morrish

1978:42-46, 119-132, Dalin 1978:67-74).

These models, however, have been criticized on several grounds. Apart from their technical shortcomings, they basically do not pay appropriate attention to the political dimension of the change process. This might be attributed to the fact that these models have been developed in American settings, and all have their roots in Neo-Evolutionary theories (Paulston 1976, Huberman 1973:62, Dalin 1978:67).

In a school setting, models of change may overlap. Also, variations on a certain model can be found. Further, each genuine innovative project has distinctive features which might not be encircled by an arbitrary model.

Strategies of Educational Change

At its simplest, a strategy for change means using a set of tactics and policies to deal with the problems of educational change. And researchers also make classifications with regard to strategies.

Guba presents a typology of strategies dependent upon the nature of the adopter. These strategies are labelled value, rational, didactic, psychological, economic, and authority strategy. He provides also six diffusion techniques related to each one of the strategies: telling, showing, helping, involving, training, and intervening (cited in Huberman 1973:67, Morrish 1978:116). But presenting these strategies

as separate entities seems to be arbitrary. Also, Zaltman et al. (1977:73) maintain that the literature produces three basic types: power-strategies which depend on rewards and punishment, manipulative strategies which seek re-arranging characteristics of environment, and rational strategies which attempt to communicate change and to justify it.

The often-cited classification is that of Chin and Benne (Bennis et al. 1969:32-57). They group strategies under three types: Rational-Empirical, Normative-Re-educative, and Power-Coercive. Briefly, the rational-empirical strategies assume that people are rational and will adopt innovation once it is rationally justified. They rely upon communication. The normative-re-educative strategies assume that the adopter is active in searching for a solution to his problems. Typically, a change agent is involved to help the adopter. And the power-coercive strategies depend upon using forms of power (e.g., political, economic) to enforce change.

Basically, the rational empirical strategies have been criticized for holding a false notion that people are always rational and ready to change their behaviour. The normative-re-educative strategies have been criticized for assuming that the would-be adopter can handle a difficult, complex and time-consuming task. And the use of the power-coercive strategies may result in lack of commitment or opposition (Nicholls 1983).

Exploring the "reality" of innovation in developing countries, Havelock and Huberman (1977:17-18) identify four

distinct strategies which they label: "participative self-help", "open input", "power", and "diffusion". However, they point out that they fail to find clear reaffirmation of a strategy which can be called rational-empirical or research-and-development. They contend that research-based, and very systematically planned, implemented, and evaluated projects are quite rare in developing countries.

It appears that a single strategy may rarely be found at work. In most cases, two strategies may work at the same time in a school situation (Nicholls 1983). Furthermore, Havelock and Huberman's failure to find a rational-empirical or a research-and-development strategy discloses two important points. The first is that there is a world of difference between making assumptions about reality and reality itself. The second point is that distinctions between the three frequently quoted strategies classified by Chin and Benne are false. Therefore, Hurst (1983:14-20) classifies strategies into punishment and reward, change agent, and participation in decision-making. And he, realistically, prefers to place different approaches on a continuum ranging from highly directive to highly non-directive strategies.

Adoption and Rejection of Innovations

Although the volume of writings on the process of educational change is huge, few writers appear to come to grips with the reality of the central issue of adoption and rejection of innovations. In general, the main shortcomings of much of

the research on this issue can be attributed to:

- clinging to correlations and building generalizations on them
- isolating the phenomenon under analysis from its context
- approaching the phenomenon with pre-conceptions
- relying on over-use of dichotomies.

However, the number of writers who have provided valuable knowledge about the process of adoption is growing.

In a comprehensive and critical review of literature on educational change, Hurst (1983:21-48) finds that five distinct types of hypotheses about adoption and rejection of innovations can be discerned. These are:

1. Endemic conservatism: which holds that human beings by their nature resist change and prefer stability.
2. Variable conservatism: which assumes that societies, organizations or individuals differ in their receptivity to change owing to certain factors.
3. Properties of innovations: which hold that the characteristics of innovations determine their reception.
4. Communication hypotheses: which assert that the adoption of an innovation is the outcome of a prior communication process.
5. Situational or decision analysis: which seeks to model the process of choice as a determinant of acceptance behaviour.

Drawing on evidence from various disciplines, Hurst argues forcibly that the notion that human beings, by their nature, resist change is false and tautological. And that grouping humans and societies as those who oppose change, and those who welcome it is also a false and misleading polarization.

As for the examples cited in the literature concerning the characteristics of the potential adopter or his environment, Hurst asserts that counter examples can also be advanced, and points out that literature presents correlations not causes. Moreover, basing his argument on Karl Popper's refutation of determinism, Hurst maintains that such hypotheses are untestable on the premise that a sample of innovations cannot be a representative of all others. Logically, uninvented innovations must be included in the sample, which is impossible.

Hurst goes on to discuss the attributes of innovation identified by writers such as Rogers and Shoemaker, and Zaltman et al. He thinks that associating adoption or rejection with innovation attributes seems to be more reasonable or probable than associating it with potential adopters though these characteristics might be arbitrary.

And looking at the contributions of Havelock and Rogers, and in particular the "linkage" model of Havelock, Hurst concludes that communication is not a sufficient condition for accepting an innovation though it is a necessary one.

This leads Hurst to advocate an approach which holds that acceptance behaviour is an outcome of a process of choice or decision. Key factors in this model are: information, logic, and politics. In brief, information is the base on which the decision-maker builds up his choice. To be of benefit, this information must be processed according to some logic taking into consideration the limitation of people in real situations and the ways they use to arrive at decisions. In general, decisions are weighted against the expected costs and benefits. In addition to that, the political dimension of the innovation should be taken into full consideration. This model, thus, basically entails an appropriate estimation of people's capacities to judge the worth of innovations. These evaluative capacities of people should be recognized and utilized by strategies of implementation.

This approach appears to have the merit of escaping the trap of the fallacies and the limitations of the hypotheses mentioned earlier. But, while it is agreed that making decisions depend on information, the relationship between decisions and information is neither direct nor simple. For instance, a decision on education may be taken by a politician. Yet this politician cannot make his decision in isolation from various influences which may include, among other things, aides and consultants' advice, and evaluation reports. It is difficult to separate these influences and to tell which one of them has a decisive role. In a sense, decisions are not solely the product of the people who happen to make them. Significant decisions, in House's words "defy easy

extrapolation. They are so entangled with everything else that they resist precise formal analysis" (House 1980:68).

What are the conditions, then, which lead to acceptance of innovation? Hurst (1983:57-59) finds that the behaviour of acceptance is dependent on certain conditions. These are:

- adequacy and accuracy of information and feedback
- coincidence of outcomes with participants' value systems
- likelihood of benefits actually occurring in a given context
- availability of necessary inputs or resources
- capability of yielding better returns on investment of time, effort or other cost
- elimination of uncertainty through trial
- flexibility or ability to be modified when necessary.

Major research findings seem to support Hurst's conditions of acceptance. Drawing on a comprehensive body of research mainly conducted in the United States, Fullan (1982:41-51) finds that the following ten factors can affect the adoption of an innovation:

- existence and quality of innovation (addressing the educational needs of various groups in society)
- access to information (primacy of continuous personal contact and an adequate infrastructure of communication)
- advocacy from central administrators

- teacher pressure/support (teachers adopt change under the right conditions)
- consultants and change agents (may be instrumental in helping teachers to adopt the innovations which the teachers want)
- community pressure / support / apathy / opposition (effects of communities' demographic shifts and their level of education)
- availability of federal or other funds (external resources as a powerful stimulant for adoption)
- new central legislation or policy (federal/state/provincial)
- problem-solving incentives for adoption (some districts are problem-oriented in the sense that they identify important needs and seek out resources to address them)
- bureaucratic incentives for adoption (schools adopt complex, vague, inefficient, and costly innovations when someone else is paying, and as long as they do not have to implement them)

But Fullan asserts that much is needed to be known about the adoption process. He finds some insights in a study done by Crandall et al. (cited in Fullan 1982:51-52). The writers stress the importance of administrative initiative, incentives, and the time-line of decisions in the process of adoption. Administrative initiative is important at the initial adoption stage, and innovations that have longer time frames to cater for needed training and materials tended to be more

successfully implemented. Fullan also points out that adoption decisions occur all the time, and come through a variety of sources. The influence of a particular source depends on the contextual conditions of the situation.

Another important piece of research, which presents an international perspective, also supports Hurst's conditions of acceptance. Studying the process of educational innovations in seven countries, Adams and Chen (1981:267-270) conclude that initial acceptance of innovation depends upon a number of conditions. These include the power that can be marshalled to support the innovation, the threat that change entails on the power of existing groups, and the negotiation protocol among sub-systems. They also include the benefits expected to outweigh the costs, and the rhetoric used to convey the impression of similarities between the innovation and the status quo. These conditions basically show the political dimension, and the capacity of people to weigh their decisions in the process of adoption.

Implementation of Educational Innovation

The issue of implementation did not receive the attention it deserves till the beginning of the 1970s. Since then, the emphasis in the literature has changed. The famous case studies which were written by Gross et al. (1971), and Smith and Keith (1971) are now considered classics. Suffice it to say that the worth of an innovation can only be considered if it is implemented.

Hurst (1983:57-61) points out that there are general conditions for accepting innovations, and consequently form a basis for implementation analysis. He states that these are common sense conditions derived from the common logic of people. The conditions include communication, relevance or desirability, effectiveness or reliability, feasibility, efficiency, trialability, and adaptability. Hurst asserts that corrective actions must be taken when some of these conditions are missing. He also stresses that two important factors must be taken into consideration: making changes in the administrative procedures, and training those who participate in the process of implementation.

Fullan (1982:56) presents fifteen factors that can affect the process of implementation. These factors are related to the characteristics of the change, and the characteristics at the school district level, at the school level, and those external to the local system. The characteristics of the change include need and relevance of the change, clarity, complexity, and quality and practicality of programme (materials etc.). The characteristics at the school district level include the history of innovative attempts, the adoption process, and central administrative support and involvement. They also include staff development (in-service) and participation, time-line and information system (evaluation), and, board and community characteristics. As for the characteristics at the school level, they comprise the principal, teacher-teacher relations, and teacher characteristics and orientation. And finally the

characteristics external to the local system which include role of government, and external assistance.

These factors can be unfolded into a number of subvariables. At the same time they are interrelated. To Fullan, effective implementation depends on the combination of all the factors cited above. Apart from the particularity of American setting, Fullan's factors appear to have a practical element for practitioners. Further, the factors suggest that change is a multi-level process. This entails a multi-level thinking in tackling the problems of educational change.

The issue of implementation was also one of the central concerns of the UNESCO meeting of experts held in Paris in 1977. Discussing Major Problem Areas of Educational Reforms in the 1970s and the 1980s, the experts defined a number of problems which faced the translation of policy options into practical actions (UNESCO 1979:49). These included failure to design an operational strategy for implementing the reform, insufficient financial and material resources, vague objectives, inadequate training for implementers, unsuitable institutional framework, neglect of educational technology, and domination of the examination system. They also included alienation of children and parents due to irrelevant educational practices, imbalances between political will and professional competence, conflict between democratization and the maintenance of conventional standards, and lack of linkage between education and work.

On the whole these problems can be translated into words such as feasibility, reliability, relevance ... etc. They, more or less, address the same issues implied by the general conditions of acceptance of innovation cited above.

Tied with effective implementation is the issue of contingency planning which necessitates using "different strategies in different situations" (Fullan 1982:99-100). For in a project's normal course a need may arise to change route in order to contain obstacles, and to cope with certain situations. Failure to design an implementation strategy which incorporates corrective mechanisms or contingencies was, in fact, among the concerns of the UNESCO Expert Meeting mentioned above (UNESCO 1979:49). Though implementers may resort to take some actions when faced with a problem, these actions cannot mount to the level of pre-meditated contingencies.

Fullan (1982:99-100) maintains that there are three possibilities with regard to contingencies. These include expending energy on areas expected to be successful, encouraging different users to select different programmes, and using different approaches in different settings. As for the approach to be followed in implementing contingencies, Berman (cited in Fullan 1982:99) points out that there are two distinct approaches: programmed and adaptive. The selection of the appropriate approach depends on major situational parameters.

Continuation

Another important issue is that of continuation and persistence of educational innovations. Fullan (1982:76) thinks that continuation represents another adoption decision. To him, three major factors negatively affect continuation. These comprise lack of interest, lack of money for the project, and lack of money for staff development. These factors appear to act together and result in staff and administrative turn over which Fullan finds to be the single most powerful internal factor that affects continuation.

Staff and administrative turn over, as a factor, is also on the list of the conditions under which innovations tend to persist beyond the stage of initial acceptance in Adams and Chen's study (1981:271-278). Other conditions include credibility or the gap between promise and performance, and positive assessment and relevant evaluation to decision-making. They also include availability of a critical mass of resources (plant, personnel, people), and adaptability or the system flexibility and ability to exploit to advantage the situations that occur.

Support to innovations from various sources seems also to play a vital role in the process of persistence. In an intensive study on "instructional improvement effort", Roberts and Kenny (1985) conclude that the strongest predictors of school institutionalization are support from school-based administrators and instructional gain. They also find that

district-wide institutionalization is strongly correlated with central office support and school-level institutionalization.

In developing countries, continuation of innovative practices appears to have another dimension related to the capacity of the systems of education to be "original" or "imitative". Kamber (1980:149-186) holds that the drive to introduce innovations in these countries does not represent an "action". Rather, it expresses a "reaction". While the action is the outcome of a futuristic vision, well-organized plan, will, power, and a decision to meet desired objectives, the reaction is no more than a passive response, or an imitation of others actions. Projects, thus, cannot endure pressures from the environment. They often start with a vehement enthusiasm which lasts for a short period and then fades away. They remain marginal, and detached from existing practices. In short, the so-called innovative projects have no roots.

Evaluation

The literature on educational evaluation contains many definitions. These definitions differ in stressing certain aspects of the process of evaluation. Some emphasize the extent of realizing educational objectives, others emphasize the provision of information for decision making, and others stress the assessment of merit or worth. Also, there is a line of thought which rejects the judgmental nature of evaluation, and sees the evaluator as an "educator" rather than a judge (Nevo 1986:15-29). In this study, I tend to adopt the view

which perceives evaluation as a process of examining information in order to make decisions.

The literature also contains various models of evaluation. Becher and Maclure (1978: ch.9) group the models into three main approaches: the instrumental, the interactive, and the individualistic. The instrumental approach largely depends on comparing the performances of two closely matched sample groups. Later, it focuses on behaviourial objectives and the measurement of changes in learning outcomes. This approach excessively relies upon statistical analysis. The interactive approach stresses the qualitative investigations of processes rather than the measurement of quantitative products. It perceives evaluation as an activity which should be responsive to the needs of different audiences, illuminative of the processes at issue, relevant to the public and decision makers, and reported in an accessible language. Within this approach, a number of evaluation schools have emerged such as "holistic", "illuminative", and "responsive". As regards methodology, this approach depends mainly on ethnographic tools. And the individualistic approach emerges to meet the need of individual learning for a different kind of evaluation. The major task of the evaluator is seen as helping the learner to appraise the effectiveness of his results, with the collaboration of the teacher and the curriculum developer. The basic tool of this approach is case-studies.

Basically, the instrumental approach is criticized for assessing both the new and the old in similar terms, assuming

control over variables in the educational setting, and relying on quantitative methods to explain complex social phenomena. The interactive approach is criticized on the grounds of subjectivity. And the individualistic approach is criticized for making considerable demands on time and effort.

House (1980: ch.2) classifies models of evaluation into seven approaches. These are: system analysis, behaviourial objectives, decision-making, goal-free, art criticism, professional review (Accreditation), quasi-legal (Adversary), and the case study (or Transaction). House presents a taxonomy whereby the models are related to each other in a systematic way. He shows their differences, and points of emphasis with regard to major audiences, consensus on goals and objectives, objective methodology, and concern about outcome. House asserts that these models are idealization. Actual evaluation is shaped by different contingencies. Even when an evaluation begins conceptually as a particular type, it may end by taking another shape.

In general, evaluation activities in developing countries appear to be far from being systematic pursuits. Evaluation reports are, to a certain extent, neither extensive nor reliable[4] for a number of reasons. These mainly include inadequate funds, insufficient time, lack of trained personnel, unclear objectives, insufficient data base, limited use for decision making, inappropriate quantitative methods, and political influences which necessitate evading conflict areas and beautifying unpleasing facts (Havelock and Huberman 1977: ch.10, OECD 1987:66).

The story has yet another dimension. Discussing the political, epistemological and ethical implications of evaluation approaches, House (1980:46) points out that all models are derived from the philosophy of liberalism with certain deviations from the mainstream, hence the emphasis may differ. One is tempted to raise the question that if all these models have their roots in liberalism, is it not paradoxical to use them in evaluating programmes that hold assumptions based on different social or economic philosophy such as socialism? Are the people who use them in certain developing countries aware of this issue, and if so, can they do anything about it? Have these models transcend ideological differences? In a sense, this shows the vulnerability of young modern educational systems, and that Western modes of thinking are not only widely-spread but dominant. This also discloses that in the absence of an indigenous alternative, educational systems, or more accurately educationists can only resort to borrow models based on different political assumptions which, in any case, are not easily discerned.

Valid Postulates

The previous account discloses that educational change is a complex phenomenon. Further, research findings are contradictory or inconclusive. Causes of contradictions can be attributed to differences in researchers' perspective, in design and sample of studies, in ways of measuring variables, and in the choice of the unit of analysis or observation (Berman 1981:235-286). The issue of participation in decision-making pertaining to introduce innovative practices in schools

provides an illustrative example of this contradiction in research findings. Whiteside (1978:107) discusses the sociology of educational innovations, and finds that schools that follow the concept of "organic development" face conflicts among staff as well as between various groups of students. Fullan (1982:51) argues that the notion of participation in decision-making on the part of teachers may simply mean that teachers have not much time for discussion, or they do not understand what they were getting into, or that certain decisions had already been taken. On the other hand, discussing the recommendations of a number of UNESCO's regional seminars, Thompson (1979:90-103) asserts that there was a clear agreement on the importance of teachers as well as students and parents' participation in reform. Also, Furtwengler (1985) in a paper on "implementing strategies for a school effectiveness programme" concludes that students' involvement in the process of carrying out the programme is considered essential. Thus, while there is evidence that participation can lead to adoption and consequently to implementation of innovations, there is counter and forceful evidence that this might not be the case (Gross et al. 1971:28, CERI/OECD 1973:vol.4, 188, Dalin 1978:29, Hurst 1983:19).

That said, in the following pages I attempt at pulling together some basic postulates about the process of educational change that seem to be valid.

Adoption or acceptance of change is a complex process. It represents a decision to take up certain behaviour depending

on a number of conditions. Empirical research has shown that there are conditions under which innovations tend to become acceptable (Hurst 1976, Adams and Chen 1981:266-270, Fullan 1982:41, Hurst 1983:57-59). Apart from Fullan's multivariate thinking, and Adams and Chen's emphasis on the political dimension of acceptance, Hurst's seven conditions (i.e., communication, relevance, reliability, feasibility, efficiency, trialability, and adaptability) seem to grasp nearly all basic elements of the process. These conditions can accommodate many variables to be found elsewhere. Yet in order to be met, these conditions essentially necessitate a system of education that has an adequate infrastructure, a system that runs in accordance with a certain logic, and a system that exists in a stable political climate which is not the case in many developing countries. Adoption is a highly political process. And patterns of adoption correspond, to a certain extent, to the prevailing patterns of political behaviour in a particular country. However, it appears that lack of clarity of an innovation, lack of a defined need, and lack of incentives do not constitute major barriers to adoption. But the time-line of adoption decisions is very important (Fullan 1982: ch.4).

The problem of educational change is essentially a problem of implementation. Cumulative empirical findings of research since the 1970s strongly support an implementation-dominant view of educational change. Some leading change theorists assert a research shift towards an implementation paradigm (Berman 1981:235-286, Fullan 1982: ch.5). The general conditions of acceptance cited above (Hurst 1983:57-59) appear

to provide a sound basis for implementation analysis.

Contingencies appear to play an important role in implementing educational innovations. Major research findings indicate the significance of having plans beforehand. This undoubtedly increases chances of overcoming or containing difficulties which normally arise during the process of implementation. Reviewing current research related to school improvement efforts, Crandall et al. (1986) also conclude that strategic planning should be sensitive to contingencies.

A proposed educational change may take another shape in practice. Discussing the history of secondary education in France, Durkheim points out that the ideal proposed in theory changes once it enters the domain of practice (cited in Popkewitz et al. 1982). This point is central in a research conducted by Popkewitz et al. Examining an elementary school reform effort developed in the 1960s in America under the name "individually guided education", the researchers find that the schools use the innovation in a way which responded to their social situation. Schools do not adapt the programme and make modifications to reach the same goals. Rather, they revise both the technology and its espoused goals. Berman and Maclughlin (cited in Berman 1981) also find that the empirical evidence of the "mutation phenomenon" is strong. Berman (1981) asserts that interaction between the innovation and its setting generally results in changes in the initially conceived innovation. And the same point is also emphasized by Fullan (1982:91). He asserts that initial ideas can be transformed

or developed. This state, however, does not mean, and certainly should not lead to falling back on accustomed practices which the innovation intends to alter.

Time represents an essential dimension in making a decision to change a certain behaviour. Both adoption and implementation of an innovative practice take time. Time also affects continuation and evaluation of an innovation. Drawing on a comprehensive body of research, Fullan (1982:293) concludes that "the single most frequently cited barrier to implementation is lack of time". In developing countries the issue of time acquires additional significance due to lack of resources, and the urgent need to narrow the gap of development between them and the industrialized world.

The models of change categorized by Havelock (1969) are over-simplified versions of reality. Their assumptions are arbitrary. A rational sequence of events, or a quest to solve problems, or even a particular interaction, as assumed by the models, might not necessarily be found in the school setting. Further, these models have their roots in a neo-evolutionary tradition, and are the products of an American view of the world (Dalin 1978:67). As for the strategies of change, the often-cited classification of Chin and Benne (1969) also appears to be arbitrary. It is more plausible to place different approaches on a continuum ranging from highly directive to highly non-directive strategies (Hurst 1983:14-20). Due to time pressures and lack of commitment in the case of many developing countries, a directive (implying power)

strategy is indicated (Zaltman et al. 1977:238). At any rate, neither the models of change, nor the strategy seem to have a great bearing on adopting an innovation.

As for the models of evaluation, they all share - to a certain extent depending on their point of emphasis - the basic political, epistemological and ethical assumptions of liberalism (House 1980:46). However, evaluation pursuits in developing countries seem to be far from being systematic or highly reliable.

Applicability For Developing Countries

The large part of the academically dominant literature on educational change, however, has certain shortcomings with regard to its applicability to developing countries. These can be summarized in the main following points. Firstly, this literature has largely been conducted in the United States, and to a lesser degree in Western European countries. It is the product of the conditions experienced by technologically advanced countries. The theories and the models of change have been developed on the lines of the cultural traditions of those societies. Therefore they reflect a view or views of the world which are not necessarily held by other societies. And they fall short in addressing the specific needs and priorities of developing countries. At the theoretical level, evolutionary and neo-evolutionary perspectives tend to argue an essentially "neocolonialist" position advocating a type of change to be modelled on the experience of the advanced countries (Paulston

1983:21-70, Simmons and Anderson 1983:399-431, Hurst 1983:5, Dalin 1978: ch.4). On the other hand, in spite of its diagnostic capacity, the conflict theory has no operational models, and thus has limited usefulness for practical management of education (Dalin 1978: ch.4). At a more specific level, issues such as power, conflict between interest groups, participation, and centralization are contextually-bound and cannot be accounted for by macro theories or models patterned on dissimilar conditions.

Secondly, and related to the previous point, a large proportion of the literature on educational change in developing countries, that has been carried out by westerners, has its limitations. These basically include pre-conceptions based on the dominant theories and models, and impenetrability of complex socio-cultural systems in their entirety to outsiders. For example, international "application" of the social sciences' themes and models at UNESCO generally implies a "transfer" of cultural bias, and the use of comparative evidence often of questionable validity (Lengyel 1986:54-63). However, the prevalence of western theories and models have also greatly influenced the conduct of research by nationals.

And thirdly, practicality appears not to rank high in many works on the process of educational change. These works contain a large number of variables which are conceived to be related to the change process. But the distinction between mere "correlations" and actual "causes" has seldom been made (Hurst 1983:5). Although these variables may indicate the

complexity of the change process, they have limited practical usefulness for the people of the developing countries. Zaltman et al. (1977), for example, present around 300 variables or step-by-step-recommendations concerning the process of change which are, perhaps, rightly described by Fullan (1982:93) as "bloodless" because they cannot provide a practical solution.

Technology Transfer

In developing countries the issue of educational change has another important dimension related to "technology transfer". Technology importation creates technological dependence in the recipient countries, and has a great bearing on political, economic, social and cultural dependency. To confine this brief account to the Arab countries, the main consequences of technological dependence are identified by a paper prepared by the United Nations Conference on Trade and Development (UNCTAD) Secretariat (Zahlan 1978:115-125). These include weak bargaining position, foreign exchange cost, implicit costs associated with restrictive and other types of practices, loss of control over decisions, and restriction on developing effective indigenous technological capacity. This paper, however, largely concentrates on the economic aspect of technological dependence.

In general, the Arab countries are confronted with problems in importing technology because of a number of reasons which can be grouped under two major areas: unsuitability of the technologies, and weak infrastructures. Technologies are essentially developed to meet the economic, social, and

environmental needs of the countries which produce rather than those which import them. Such technologies are, to a great extent, capital-intensive, highly sophisticated, incompatible with the existing infra-structures, and unable to utilize local potentialities. The second major area of problems mainly include lack of technology evaluation, lack of sound technical policies and weak professional and research capacities (Quraysh 1982:85-107).

Importation of technology under such conditions represents a form of "social wastage" which contributes to greater under-development, and supports the uneven structure in the international economic order (Corm 1978:95-114).

The Arab Gulf countries, for example, have largely relied on "turn-key projects" in implementing ambitious development schemes especially after the increase in oil revenues. This type of project's implementation is both fast and easy. But it also denies the imported countries the chance to develop their scientific knowledge and local capacities (Khalil and Al Hamdani 1986:126-162). Also, the imported countries cannot be expected to fully utilize or to cope with the drawbacks of such technologies. Further, this process has its cultural side which leads an Arab specialist on the subject to state that "nations that import turn-key technologies may in time become turn-key states with turn-key cultures" (Zahlan 1978:ix).

Hence, it appears imperative that technology has to be soundly selected, effectively practised, and adjusted to the

local conditions of the developing countries. This necessitates two sets of integrated policy approaches. The first is controlling imports and modalities for technology transfer through establishing a national (or a regional in the case of the Arab region) agency to draw up, implement, and monitor technical policies. The second set is strengthening a national or regional capability to generate technology indigenously through developing scientific institutions and managerial capacities[5], and through integrating research and development institutions with the productive sector of the economy (UNCTAD 1978:115-125, Corm 1978:95-114).

Cultural dependency is the other face of economic and technological dependency. In the field of education, this is reflected in borrowed systems and innovations. For the Arab region, this state can be traced back to the nineteenth century when most of it was under the Ottoman Empire. The Ottomans established schools patterned on European models especially the French. This pattern, with some variations, took root when both the British and the French divided and ruled the Arab region after the First World War. The new schools replaced the old Koranic schools (Kuttab) which were seen hardly adequate for the purpose of providing knowledge in a variety of subjects, and training for various professions. The contributory factors behind maintaining that process of borrowing western models included the influence of foreign individuals and groups operating in the region, educators coming from the west, and nationals studying in the west. They also included lack of established educational traditions

because the systems were new, lack of educational research, and lack of professionally trained personnel (Matthews and Akrawi 1949:540-542). Since then and because of political, social, and economic reasons, the cultural models of the west have continued to influence or to shape the educational systems in the Arab countries as is the case in other developing countries.

The prevalence of the Koranic schools during the Ottoman rule was not the educational tradition experienced by the Arabs in their glorious past. Those limited in scope and lethargic schools were part of the "economic and intellectual stagnation" (Berque 1983:30) of the Ottoman era. The Arab cultural tradition was entirely different. Between the eighth and the twelveth centuries, the Arabs carried the torch of ancient learning and contributed a great deal to the world cultural heritage. That was "the long period of European ignorance" (Polk 1980:54). After establishing their vast empire which extended from India to Spain with the inspiration of Islam, the Arabs concentrated their efforts to master the available knowledge. They assimilated the Greek culture, but did not stop with assimilation. In the words of the New Encyclopaedia Britannica (1988 Vol.27:35-36) "they criticized and they innovated". In brief, the contributions in science mainly included the concept of zero, basic works on optics, advanced work in mathematics, geometry, and trigonometry, the creation of algebra (from Arabic Al-jabr) and the study of algebraic functions, advanced work in medicine, chemistry, and significant work in astronomy and astrology aided by the

construction of great astronomical observatories that provided accurate observations (pp.35-36, Polk 1980:54). Also, the contributions in philosophy, history, geography, linguistics, religious studies, and literature were immense and of outstanding quality. This was the product of a highly cultured urban civilization manifested in establishing educational institutes and universities especially in Baghdad and Andalusia (southern Spain) which were the centres of excellence at that time.

From the twelveth century, the Arab-Islamic civilization was invaded from different fronts. Spain gradually recaptured by the Christians. Among the treasures the Arab left behind were fine libraries filled with the works of the Arab and Moslem scientists and philosophers in all fields of knowledge as well as the Arabic translations of Greek works. Those books were translated into Latin by Christian monks. Thus, by the end of the twelveth century, that wealth of knowledge was available to the Latin west. The names of the Arab scientists, and philosophers, and doctors "fill medieval texts" (Polk 1980:54) in Europe. The impact of that knowledge transfer was so great that it is considered as one of the causes of the Renaissance (Polk 1980:54, Berque 1983:30). However, the fall of Spain was followed in the mid-thirteenth century by the fall of Baghdad, the capital of the Arab-Islamic Empire to the murderous ravages of the Mongol who devastated the libraries and their treasures. This encouraged subsequent invasions which brought further destruction to Baghdad. At that time the Arab-Islamic civilization lost its strength and vigour. And

as the scholarly and economic lights dimmed, the Arab region entered a period of ignorance and destitution. In the sixteenth century, the Arab region came under the Ottoman rule which lasted for four centuries, and further augmented economic and intellectual stagnation. It was not until the nineteenth century that the process of modernization gradually began particularly in Egypt. That narrow scope intellectual life gave rise to the Koranic schools. After the First World War, the British and the French colonized the Arab countries. For some countries, colonization lasted up until the sixties.

Thus, economic inequalities with Europe which increased during the exploitative colonial epoch coupled with the absence of an effective scholarly tradition led the Arab countries to fall on copying western educational models in an attempt to catch up with the developed countries. But educational innovations such as the comprehensive school or the educational television have remained largely ineffective and inefficient practices. Nor have the systems of education been able to build up a capacity to take full advantage of available technologies for creative and analytical work (Shirawi 1985:68-79).

This state of affairs, however, has been experienced by most of the developing countries. Therefore many people have called for a return to tradition. For example, the relationship between tradition and innovation was high on the agenda of the Fourth World Congress of Comparative Education Societies held in Tokyo 1980. The Congress suggested that for

the Third World it might be necessary to go back to pre-colonial tradition in order to become creative and to find new ways, and then in time to outgrow the tradition itself (JCEC 1980:115-117). But this suggestion in its totality seems to be unrealistic. At present, societies can hardly isolate themselves from the outside world with its communication networks. Also, it appears that the differences to be found in the educational systems between the developing and the developed countries are frequently those of degree rather than kind (Simmons 1983b:71-85). Four reasons are cited by Simmons to support that. Firstly, the systems of education of many developing countries were largely copied from developed countries. Secondly, the basic job description and learning requirements do not differ basically. Thirdly, international tests of school achievement suggest that cross-cultural determinants and levels of learning show more similarity than differences. And fourthly, the developing countries are importing innovations that have been introduced in the developed countries.

The great majority of Arab educationists appear to share the view that the Arab countries have to concentrate their efforts on reinforcing their cultural identity, and on interacting effectively with the scientific activities of the present-day world in order to generate the ability to adapt educational innovations and technologies to their specific needs or to invent them. This entails drawing on the richness of their cultural heritage, and simultaneously strengthening their economic and scientific capacities (UNESCO 1980:7-95,

97-115, Kamber 1980:149-186, Al Rumayhi 1981, Jafar 1983).

Summary

This chapter showed that time is a highly significant element in the complex and lengthy process of educational change. But time is often underestimated in planning and implementing innovative projects. The reasons behind people's underestimation of time appear to receive little attention in the literature on educational change. However, political pressure to achieve results in the shortest possible time is the frequently-cited reason behind time underestimation in the literature. Other possible reasons include ignorance or inexperience, different attitudes to time in different socio-cultural systems, and difficulty of quantifying certain parts of innovative projects. These reasons can partly explain why people underestimate time.

The discussion of the opportunity cost of time, and that of the relation between entropy and time reveals that time is translatable into other resources. This is especially the case via the concept of opportunity cost. Lost time equals all lost resources. Further, efficiency has achieved primacy in the current economic crisis. Thus, it seems that an economic explanation of time underestimation is more likely to be based on a firm ground.

Notes

1. Many of the findings of the study can be interpreted differently which cast doubt on the assumption that there is a strong relation between traditional cultural values and the misuse of time. The following are some examples: with regard to the variable of sex, the study shows that the female-workers are more keen not to waste work time, quicker and more precise in performing their work, and more conscientious in dealing with raw materials. But women all over the world (i.e., in different cultures) have shown competency in repetitive or monotonous jobs which necessitate patience and endurance. Women can perform well behind computer terminals, telephone exchanges, in electronic factories, in sweet factories, and the like. Further, orientation to time are not due to masculine or feminine attributes. Rather they are affected by imposed social roles. The process of socialization - which is an external factor - affects both men and women's experiential orientations, and their attitudes towards time (Cottle 1976:80).

   The claim of the study that the misuse of time is related to getting older is challenged by Klineberg (1966). He maintains that both "the shape and content of the future tend to become more realistic" as people get older. Also the study finds that work time moves slowly for older people. But this, if it is true, can be explained by lack of interest in their job which is repetitive and boring because of sameness. If we know that many of these workers are unskilled and illiterate, we can expect what kind of tasks they perform in a factory for electrical appliances. Elton and Messel (1978:89) assert that "time appears to pass more quickly for them (older people) than for children". In general, the existence of psychological factors affect our experience of the apparent rate of passage of time.

   The findings related to the variable of social background or descent also beg questions. The study claims that the misuse of time is more evident in groups of rural descent. But would the relatives of the workers of rural descent who remained working in agriculture consider time in the same way if they hired people to do certain jobs for them? Would they accept delay if they had to pay for it? Analyzing time and work discipline, Thompson (1970:221-222) notes that as soon as actual hands are employed in a farm or a domestic industry, the shift from task-orientation (i.e., the working-day lengthens or contracts according to the task) to timed labour (i.e., labour timed by the clock) is marked. This means that the value of time when reduced to money is dominant in the relation between the employer and the employees.

2. An "open system" in Thermodynamics refers to an enclosure whose boundaries permit the passage of energy, as well as

of matter. A "closed" or an "isolated system", on the other hand, refers to an enclosure whose boundaries prevent the passage of energy or matter.
(Denbigh, K.G. (1975) An Inventive Universe, London: Hutchinson & Co. pp.194-195)

3. For example, the equilibrium stance is clear in Havelock and Huberman's definition of innovation as "a significant new effort to complete a system or to create a system". (Havelock, R.G. and Huberman, A.M. (1977). Solving Educational Problems, UNESCO, IBE. p.33).

4. This is not to imply that evaluation activities in developed countries are entirely reliable.

5. With regard to Iraq, and in addition to the research institutes linked to universities, the Council of Scientific Research was established in 1980. Between 1980-1985, the Council concentrated its efforts on establishing managerial structures, research centers, and relations with international research institutes, as well as preparing scientific researchers. The strategy of the Council has centered around achieving the national security of the Arab homeland, developing human resources, acquiring technological capacities and adjusting them to local needs, attaining food sufficiency, and paying due consideration to energy and to the process of industrialization.

(Mohsin, Z.H. and Klor, M.A. (1986). The strategy of scientific research in the Arab Gulf countries, in The Proceedings of the Second Meeting on Scientific Research in the Arab Countries, Arab Bureau of Education for the Gulf States, pp.163-191. (Arabic original))

CHAPTER THREE

THE METHODOLOGICAL CONSIDERATIONS

This chapter deals with the method of research adopted and the technique used in this study. The merits and the limitations of both the method and the technique are considered. In addition to that, the special conditions of the fieldwork are briefly stated.

Method of Research

What are the routes opened to us to carry out this investigation? What is, in other words, the suitable method of research to be used and why? Due to the type of the problem under investigation, and the nature of information which I intend to gather and its sensitivity, I tend to employ an "illuminative approach" to investigate the problem of underestimation of time. This approach has a special importance because of the need to treat informants as human entities rather than objects, and to elicit meaningful responses and insights.

The theoretical basis of the illuminative approach was laid down by Parlett and Hamilton (1977:6-22). This is an alternative to the "classical" or "agricultural botany" approach which in its most common form concentrates on whether the required standards are reached according to "pre-specified criteria". The so-called objectivity of the classical approach is based on "numerical data that permit statistical analysis". Parlett and Hamilton criticize this approach on several grounds. Firstly, educational situations cannot be randomized or strictly controlled. People cannot be manipulated as things, and "rarely can tidy results be generalized to an untidy reality". Hence, this exercise is divorced from the real world. Secondly, the design of studies does not permit probable changes which may be needed while conducting investigation. This is based on the wrong assumption that the situations under investigation would remain constant while

conducting studies which is far from real. Thirdly, the scope of studies is restricted due to concentration on quantifiable data only. Fourthly, this approach is insensitive to effects which are considered statistically insignificant. And finally, this approach fails to be responsive to the concerns of a variety of audiences.

Hence, Parlett and Hamilton advocate an alternative approach which addresses the above problems embedded in the classical approach. It is called "the illuminative approach" and is mainly concerned "with description and interpretation rather than measurement and prediction" (p.10). It aims at studying operations, situational influences, and concerns of participants of innovative programmes. Further, it seeks to "discern and discuss the innovation's most significant features, recurring concomitants and critical processes." (p.10).

A central concept in the illuminative approach is "the learning milieu" which "represents a network or nexus of cultural, social, institutional and psychological variables." (p.11). Each learning setting, and consequently each innovative programme has its unique and complicated process of interaction or interplay of "circumstances, pressures, customs, opinions and work-styles" (p.11) which are the product of the above variables. In this approach, the study becomes part of the milieu it attempts to investigate, and to these processes the study addresses itself.

This approach is not "a standard methodological package, but a general research strategy" (p.13). The techniques can differ from one case to another. The method is based on the defined problem, and no method is exclusive. Different techniques may be combined together. The task of the evaluator is seen as getting to know or "familiarize" himself with the setting, taking the complex scene "as given". Then he attempts to "comprehend relationships between beliefs and practices and between organizational patterns and the responses of individuals" (p.13). Hence there are basically three stages which may overlap: observing, inquiring and explaining. As for data, it can be collected by the means of "observation, interviews, questionnaires, tests and documentary and background sources" (p.15).

The main problem, however, which faces this approach lies in subjectivity. Parlett and Hamilton underline this problem and maintain that there is no research study which is immune to subjectivity. Along with this recognition, they note that some "precautionary tactics" (p.18) can be used. Of these, the most important is "triangulation" which means "viewing the problem from a number of angles". This serves as a cross-checking element. In addition to that, influences on the method of research followed can be spelled out so that readers can understand what they are really dealing with, and judge accordingly. Nevertheless, Parlett and Hamilton admit that the subjective element is "inevitable" (p.18).

Many writers emphasize subjectivity as the major problem in this approach. Becher and Maclure (1978:144-145) remark that "bias", "subjective assumptions", and "unexamined value stances" are the possible risks of using this approach. But they contend that "an evaluator will find it hard to achieve complete transparency, to act as a pure medium which introduces no distorting effects." Shipman (1988:43-46) also emphasizes the issue of subjectivity. He sees that there is a danger of "political views", and "theoretical position" which constitute a threat to the credibility of the study that follows this approach. He thinks that a research team rather than an individual researcher can be part of a solution. Shipman, however, notes that there are limitations to this approach. Firstly, it contains the imposed interpretation of the researcher. Secondly, it is unpersuasive or unconvincing as to how the researcher reaches his interpretation. And thirdly, "it is the unspoken and not only the words that give the message". Hence he contends that reliability and validity can be low. Also, the qualitative approach is criticized for giving a "distorted view of the world" (Walker 1986:103-116), and on the grounds of "untrustworthiness" (Guba and Lincoln 1983:311-333). And in his introductory chapter on new directions in educational evaluation, House (1986:5-9) also observes "that qualitative approaches are considered too subjective by many". But he concludes that these approaches have established their legitimacy.

In spite of these valid criticisms of this approach, I posit that it represents an adequate method to study the

problem of underestimation of time. A number of reasons are behind this judgment. Firstly, the issue of why people underestimate time in planning for and carrying out innovative projects is a qualitative one which necessitates a qualitative approach. Secondly, the nature of the informants and the type of information needed do not warrant numerical quantification. As such, insights rather than statistical correlations are needed. Thirdly, in searching for insights, no response would be treated as insignificant no matter how atypical it is. This requires a qualitative rather than a quantitative approach. Fourthly, being part of the educational system in Iraq or an insider adds another dimension to the soundness of using this approach. This, in fact, fills one of the prerequisites of an illuminative approach. Fifthly, this approach represents a major shift from the classical approach, and a path for conducting studies which are related to the reality of people. And finally, this approach also represents a departure from the ethical, epistemological, and political assumptions of the classical models which rest on the utility principle (House 1980:46-65).[1]

The Technique of the Research

As for the technique of gathering the needed information, I employ semi-structured interviews, and supplement them with a critical examination of official and unofficial documents related to innovative projects in Iraq. Both these two sources are largely supported by a long observation process - though not systematic -through working in the Ministry of Education.

I preferred to use interviews instead of questionnaires for a number of reasons. As a research tool, an interview enjoys flexibility. It permits establishing rapport with respondents, thus helping in providing for "a cooperative atmosphere in which truthful information can be obtained" (Ary, D. et al. 1979:174). Further, it has that human element which is absent in a questionnaire. The respondent knows that he is answering another human being who can feel his words and the meanings behind them. This is not the case when the respondent has to respond to a paper, an inorganic matter.

Another important feature of an interview lies in the fact that feelings, passions, and visions are much wider and deeper than words. While words are limited and static, visions are broad and dynamic. To many people, writing - as means of expression - is more difficult than talking. One can express himself - to a certain degree - by a colloquial word, a proverb, a metaphor, or even a gesture of his hand or head. Further, facial expression have a great significance in conveying additional meanings.

Also face-to-face interviewing reduces instances of skipping part of the question or even the whole question, thus, decreasing cases of non-response (Johnson 1977:163-165, Sanders and Pinhey 1983:155). An interview has also the advantage of making known whether the interviewee is unable to respond at a particular time and to postpone it to a more suitable date.

Besides, an interview avoids restricting the flow of ideas of the respondent, and not to confine him within the space of a paper. An interview helps in clarifying ambiguity which may be built into questions, thus contributing to a more meaningful response. The interviewer can intervene in the process to clarify, and to cast additional light. On the other hand, the interviewee can pose questions or discuss certain difficulties to enlighten himself.

In addition to that, the interview can stimulate the respondent to treat the subject under investigation or the questions more seriously for there is a person in front of him not a paper. It also reduces instances of giving false responses depending on the anonymity of questionnaires.

The interview schedule is given in Appendix I. The major criterion of selecting the questions was to avoid opinions or notions, and to seek explanation and elucidation. Also, I attempted to throw light from different angles on the problem of the study. For this reason, the set of questions on time frames was illuminated by sets of questions on time for planning of innovations, on time for training of personnel, and on evaluation time. This also acted as a cross-checking element.

In addition to interviews, I found it necessary to make use of official and unofficial documents to support or falsify the hypothesis and the data gathered by means of interviews. In considering documents, it appeared that a selection

criterion was necessary, for it is obvious that citing sources indiscriminately would only make the issue under investigation less distinct. Thus, I attempted to select those documents which have analytical power and which underline problems rather than ignoring them. And in analyzing these documents I singled out the problems and bottlenecks of innovative projects in order to concentrate on the problem under investigation.

Some Considerations on the Technique of the Research

In conducting interviews, I intended to share a common meaning with the interviewees as a preliminary step before indulging in the subject matter of the interviews. To elicit a meaningful communication, I made an effort to adjust to the reality of the informant, to find a mutual ground, and to attempt to remove as many barriers as possible. I do not claim that I was successful in this effort in all cases. Some interviewees did not open their hearts, and their answers tended to be official statements more than truthful responses. These responses, however, were discussed in the analysis of data. Nevertheless, I, in fact, have worked closely with most of the respondents. Some of them are friends, some colleagues, and some are superiors. The advantage of this lies in knowing the line of thinking they subscribe to, their concerns, and their human limitations. In other words, this is the privilege of being an insider. And this seems to be an adequate position which meets Shipman's (1988:42) basic question on how an outsider can report with authority.

Interviews can be artificial: a talk between two people each one wearing a mask for the occasion. I kept this in mind, and attempted to remove the barrier of artificiality by employing a simple technique - to share a common thinking with interviewees that this is not an abstract interview as much as it is an effort to discuss, to explain, and to clarify some issues between colleagues or acquaintances working in the same field and having more or less the same main concern: to improve the quality of the educational services. And since the issue of time bears on all people and all activities, the interviewees, in most cases, identified themselves with the problem as one of their concerns as educators. In certain cases, the discussion during the interview provided a breathing space, and an opportunity to reflect upon an issue of immediate relevance to their work. In other cases, the talk began by questions directed to me on other people whom I had already interviewed, the importance of the study, the problems encountered, and the like. Then slowly the questions of the interview crept without force into the conversation. In this way, some of the insights were captured. I recalled one of the respondents as saying: "you caught me unaware that our discussion is part of your interview's questions". He also added, "you were able to take out what otherwise I would not talk about in the same way". To me, these were rare moments of spontaneity. The response was neither arranged nor forced out, and precautions were minimal. In such a case, I valued the situation, and it was essential to me not to spoil its delicacy. I tried to keep up with the pace and rhythm of the respondent, and to listen without interrupting him. Sometimes

such a response covered more than one question. I did not see any harm in this for I have learned that each stoppage, and each question can bring with it another mood on the part of the respondent. The situation cannot be the same, hence the need to maintain it as long as I could.

Throughout the process of interviewing I attempted not to pass judgments, and to take guard not to be dragged into defining my inclinations or tendencies in order not to guide the interviewee into answering something under my influence. I gave the respondent the impression, and it was true, that I was actually there with him to learn from him, and that his knowledge was valued. I have learned that no respondent feels at ease, and has the will to provide information if he gathers that the interviewer is going to add him to the list of informants simply as a number. Further, in discussing various matters with the interviewee, I tried to avoid pedantry and always kept a low profile of myself.

In my attempt to establish meaningful interaction with the respondents, I paid a great attention to the issue of language. The problem which is usually faced in a situation like mine runs at two levels: the level of comprehending the jargon and the vocabulary commonly in use, and the level of using the Arabic language in the interviews and then reporting in the English language. I had an advantage at both these levels. Except for a few people (i.e., teachers and headteachers), the great majority of the people being interviewed were graduates of western universities (i.e., U.K. and U.S.A.). Most of them

were Ph.D. holders. They had, then, a fair knowledge of the educational vocabulary in use. Although the line of thought they subscribed to has been shaped by their background, experience, position occupied, and personal pursuits and inclinations, they share, at the general level, a common understanding of the mechanisms of change within the Ministry of Education. The difference among them is, perhaps, one of degree - relative to the distance of their post from certain innovative projects. And though I do not deny the existence of a difference of kind, I also feel that this does not represent a wide gulf which inhibits comparisons. This means that the interviewer and the interviewees share a common language. As for the other level of the problem, the large majority of respondents were graduates of English-speaking universities. They were not alien to the foreign culture. In fact some of the respondents preferred to speak in English. Others used English words for certain concepts. This in effect was an additional guard against possible distortion of translation. However, in translating the responses, I tried my best to be accurate and precise in conveying the meaning. Further, I attempted to adhere to the spirit of the statements as far as I could.

After each interview, I sat down to write it in its first form. Then I went through the responses again and again until reaching the final form. I assumed that this process acted as a guard - though to a certain extent - against possible misunderstanding or misinterpretation on my part. Not only that, but I attempted to increase the reliability of the data

by returning to some interviewees at other times and in different settings to raise with them the same issues in an informal manner. In doing so I tried to see whether the interviewees were still holding to the same views expressed earlier.

I preferred to use the conventional means in recording the responses: the pen and the paper plus the memory. Certainly, it can be argued that the tape recorder is a superior device with regard to accuracy, fidelity, and easiness. This is utterly true. But, I found the note-taking more suitable, and consequently more useful with regard to the context under which these interviews were conducted.

However, I attempted to retain in my mind the exchanges and interactions which occurred during interviews. And, as mentioned before, I regularly reviewed the answers, comments, and deviations immediately after each interview. Through this process, I was able to fill the gaps where there were some, and to put down the missing words which might have slipped my pen. For it appeared in certain cases that the situation necessitated resorting to take brief notes only, and to concentrate on the respondent, and to look at him. This was significant to convey the message of full attention and appreciation for the respondent. On the other hand, this was not an easy task for the memory taking into consideration the fidelity needed in reporting interviews.

In conducting the interviews, however, I faced a number of problems:

- Some of the required people were not available for a lengthy interview due to their various commitments. Nevertheless, I exploited the short time available discussing the issue under investigation in an informal manner. This was not without its benefit. On the one hand, it demonstrated beyond any doubt the pressures of time they were under, which were relevant to the study. On the other hand, even under such circumstances, these people did not withhold from making observations and comments, or giving advice on the publications which should be consulted.

- The office hours were not suitable in some instances for a meaningful interview. For this reason I opted to see some important respondents at their homes in a much more relaxed and unrestricted atmosphere. Though this arrangement had some effect on the respondents' time, I was able to get more in-depth interviews. In fact, those people willingly devoted their time to the interviews.

- Some interviews were interrupted due to unforeseen circumstances. These were resumed at other suitable times. But to guard against this disruption, and the possible differences of response at a different time and setting, I requested interviewees to start afresh in order to maintain the flow of ideas without which the interview would turn into separate chunks with broken connections.

I also did not let this opportunity of repeating the process of interviewing to pass without benefitting from taking it as an indicator to consistency of responses when repeated at another time. This, however, affected my limited time.

- Some of the intended interviewees - though they were very few - were reluctant to give information on various grounds not the least of which hesitation from touching upon sensitive issues. This was obvious from asking for another undefined time, from making excuses that their time is limited, and the like. I did not exert any pressure on such people due to the fact that they were unwilling to respond. I posited that an interview with such people with these inhibitions would not be useful to our purpose.

- Some of the interviewees responded to the questions of the interview in a rather official way: uncritical and seeking to justify rather than analyze. These responses, however, were exposed in the analysis of data.

The field research was carried out between February and March 1988 in Iraq. Though the period of forty days might seem short, this was, in fact, what my financial means permitted. But, as I mentioned before, I have the advantage of being an insider to the Ministry of Education which facilitated the task and reduced the time needed for carrying out the research.

Selection of the Informants

To find a plausible answer to the question of why people underestimate time in planning for, and carrying out innovative projects in the particular case of Iraq, I posited that the information which would constitute a meaningful answer lay in one major source, and, perhaps to a much lesser degree, in a minor source. The major source included key figures and selected planners and heads of departments within the Ministry of Education. The minor source included selected university teachers, supervisors, headteachers, and teachers of high quality who frequently participate in educational conferences, seminars, and committees. The latter source, however, had limited power over the process of introducing innovative projects with certain exceptions especially in cases concerning curriculum development projects. Consequently, access to adequate information related to the fundamental reasons behind educational policies and trends, or the political and economic implications of decisions was, to a large extent, confined to the first source. Hence, I attempted to concentrate on the first source, and to use the second source to complement the information to be collected.

The major source of informants consisted of director-generals of relevant departments, planners, and heads of units who were directly involved in influencing and/or actively participating in the process of making decisions about innovative projects. The number of respondents in this major source was 13. As for the secondary source, the number of

respondents was 29. In all there were 42 respondents. This was, in no small measure, due to the fact that the system of education in Iraq is centralized. Proposals related to introducing many of the innovative projects cited in this study, were often scrutinized, elaborated, or modified by a limited group of people. Some of these people were also active members in The Council of Education, the higher body in the Ministry of Education which took decisions about many of these projects. This group of people, thus, played a pivotal role in shaping the course of innovations. Therefore, these people constituted the main target of the fieldwork. They were in the best position to provide the information needed in this study.

Many of the respondents preferred to be anonymous. And I ought to respect their wish as part of the ethics of conducting interviews. However one other point is perhaps worth mentioning here. While identifying useful informants might have posed some difficulty for an outsider, this was not the case with me. I have worked in the Ministry of Education for nearly eighteen years. Throughout this long period, I have been assigned different tasks in different departments, and have come to know or work with the large majority of these people.

The Special Conditions of the Fieldwork

The fieldwork was carried out during a period when Iraq was deeply engaged in what was called in the media "war-of-the-cities" with Iran. And though the war lasted eight years - from September 1980 to July 1988 when the cease-fire began - that period (i.e., February and March) in particular witnessed a heavy exchange of missiles directed at the cities of both countries. The following are some excerpts from the newspapers and magazines describing the conditions in Iraq while I was conducting the fieldwork:

> "1988: February - Tehran comes under missile attack for the first time in the war. Hundreds of missiles fired by both sides and thousands of civilians killed in latest bout of "war of the cities."
> (The Guardian, Tuesday July 19 1988)

> "On February 27th Iraqi aircraft attacked a refinery near Tehran. Iran fired three missiles attacks at Baghdad, Iraq replied with its first missile attacks on Tehran, firing a total of 22 between February 29th and March 2nd."
>
> "such missiles were last used in the Gulf war last November, when Iran fired a couple into Baghdad, hitting a school. The Iraqis threatened to retaliate but held back, because there still seemed a chance that the Iranians might agree to a cease-fire call issued by the United Nations in July. The Iranians are still unprepared to do so."
>
> "And while Baghdadis have grown accustomed to missile attacks, they are new terror for the Iranians.
> (The Economist, Vol.306, No.7540, March 5 1988)

> "Between February and April, in the so called war of the cities, Iraq launched 160 missile attacks on urban areas in Iran."
> (Time, Vol.132, No.5, August 1 1988)

These excerpts can narrate some events but they cannot portray them. They cannot reflect the moments of awaiting and anticipation, the moments of disquietude, restlessness and anxiety, the eagerness and impatience with which people hurry to pick up telephones to get some relief that relatives and friends are well and sound, and the concern and worry with which people reach out to turn on radio sets and listen to the news. The magnitude and the force of such horrifying events cannot be mirrored on these pages and I do not intend to do so. In the midst of such eventful days I conducted my fieldwork. The atmosphere was tense, full of varying expectations, and full of desire to penetrate the unknown and to know when and where would the next strike be. The description falls short. The country was at war.

At such a time, normal human activities, including academic research, acquire a different dimension. I was in a state of struggle between deep and inexpressible concern for my country and for the preciousness of life, and an academic endeavour. The significance of a particular study is conditioned by a specific time and place. In those days of the war, my undertaking the study was, to a large extent, a personal struggle.

But what were the effects of the state of war on the fieldwork attempted in this study? On the one hand, I was able to see most of the people I intended to meet. And I had some informative interviews with the main architects of innovative projects in the Ministry of Education. In fact, many of them

were generous in giving me their time, and the information I asked for. On the other hand, all the informants were under strain in one form or another. Apart from the volume of office work which they had to deal with, and the additional tasks and responsibilities which they shouldered because of the state of war, it was the preoccupation with the war itself that had a great influence on them.

This account is not an excuse for the flaws which might be discerned in the major data of this study. It is simply to show that I had carried out the fieldwork under unusual conditions.

Notes:

1. House arranges the main seven approaches to evaluation in the following order: The System Analysis, the Behaviourial Objectives (or Goal-based), the Decision-Making, The Art-Criticism, The Professional Review, The Quasi-legal, and The Case-Study approach. He then relates each one of these approaches to each of the following: audiences, consensus, methodology, and outcomes. House maintains that,

> "Generally, the more one progresses down the column of major audiences, the more democratic or less elitist the audience becomes. The more one moves down the consensus column, the less consensus is assumed on goals and other elements. The more one moves down the methodology column, the more subjectivist and less objectivist the research methodology becomes. The more one moves down the outcomes column, the less the overall concern becomes social efficiency and the more it becomes personal understanding."

House also admits that,

> "these are oversimplifications since the actual ordering is more complex"

On the basis of this taxonomy, House states that the three first approaches are all "utilitarian" while the last four approaches can be called "intuitionist/pluralist". Therefore, as regards the ethical, the epistemological, and the political assumptions of these approaches, the case-study approach appears to be more democratic, seeks less consensus on goals and other elements, is more subjective, and concerned with personal understanding rather than social efficiency.

(House, E.R. (1980) Evaluating with Validity, Beverly Hills: Sage Publications, pp.23-65)

It is perhaps useful to note that there are many labels which can be grouped under the qualitative approach. These are: "Field, ethnogenic, ethnographic, anthropological, interpretative, naturalistic, phenomenological, observational, grounded, case study, portrayal, illuminative and holistic."

(Shipman, M. (1988). The Limitations of Social Research, Longman, Third Edition, p.38).

CHAPTER FOUR

EDUCATIONAL INNOVATIVE PROJECTS IN IRAQ

In this chapter I attempt to briefly describe educational innovative projects in Iraq. This background to the projects - like that described in official documents - will present a partial picture of these innovations. The documents left out many unaddressed issues and details related to these projects. The length or shortness of descriptions in the following pages corresponds, to a large extent, to the quantity of information provided by available documents.

However, some of the so called projects have no distinct boundaries as regards their components, their cost, and their outcomes. Thus, I tend to think of these as new "arrangement" or practices rather than projects. The Headteacher Project and The Rotating Student, for example, fall in this category.

1. The Pilot Experimental Project in an Integrated Approach to Education for Rural Development (PEPIAERD)

The Iraqi government's concern with rural development, and UNESCO's call for, and activities in, reforming education in rural areas, created a movement in the late 1960s and the early 1970s within the circles of the Ministry of Education to introduce this project. Between 1971-1974 the Ministry sought UNESCO's assistance in establishing an educational project related to rural development. Two groups of experts from UNESCO visited Iraq in 1975 to identify the needs of the country, and this project was seen as suitable to meet these needs. In 1976 an agreement was signed between UNESCO and the Iraqi government to introduce this project (El Kassim 1987a: 4-5).

The project basically aimed at developing an overall process of educational transformation emphasizing the preparation of children, young people, and men and women in rural areas in order to participate in their country's economic, social, and cultural development (PEPIAERD 1976:2). To this end, educational programmes were to be developed both in and out of school within the general framework of the cultural development programme and the national educational system, and in collaboration with relevant institutions in the country. Further, continuous evaluation was to concentrate on relevance of the new programme to the people, their environment, and their immediate daily life (pp. 2-3).

A number of objectives were identified. These included initiating the project on a limited geographical area forming a homogenous socio-economic unit, implementing an orientation and training programme for Iraqi personnel, and strengthening relations with relevant institutions both in the area of the project and in the centre. The project was to give a special consideration to the education of girls and women with a view to helping them play a vital role in society. Further, the project was to have a regional scope promoting cooperation and sharing of experiences with other Arab Countries (pp.3-5).

The project was expected to make changes in attitudes towards participation, and to formal education. It was also expected to contribute to developing cultural activities, and to better understanding of the process of rural development (p.4).

A rural area at a distance of nearly 50 km. from the capital Baghdad was chosen for the site of the project. The choice was mainly based on population stability in the area, transportation facilities, readiness of the area's agricultural administration to provide land and demonstration fields, and nearness to the capital (El Kassim 1980:146). Two primary schools and one kindergarten were chosen to start the project in one village. This location was made the project centre, and the first nucleus.

The project was jointly financed by the Iraqi government, UNESCO and UNDP. The Iraqi government provided the personnel,

the buildings, the land, and allocated I.D. 150000 (approx. $500,000) to be spent over five years. Both UNESCO and UNDP contributed $800,000 for the same period. The latter amount was invested in assigning a consultant in rural development, arranging visits to experts who were specialized in the areas covered by the project, providing training courses abroad for the personnel of the project, and supplying means of transport, equipment, and teaching aids (El Kassim 1987a:5).

When the project started in 1977, two committees were set up. The first one was formed in the Ministry of Education to supervise the project and to steer its course of action. The second committee was local and meant to provide assistance in implementing the project. The latter consisted of representatives of relevant provincial departments, and mass organizations, and was presided over by the director general of education in Diala Governarate (province) where the project is situated (Jain 1982:12).

The teachers and personnel of the project were mainly selected from the area. A number of training programmes were provided for them: The workers were given an orientation seminar. The director of the project and two members of the supervisory committee participated in a study tour, and visited similar projects in Uganda, Sudan, Sierra Leone and Egypt. The director presented an introductory seminar for the workers. A three week course was provided for the teachers who concentrated on various activities and themes of the project. And the director and a selected number of teachers attended a

training programme in U.K., India, and Czechoslovakia (El Kassim 1980:166-171).

Seven programmes were found necessary to be implemented: compulsory primary schooling, a campaign to eradicate illiteracy, accelerated primary education for over age children (10-15), prevocational education, curriculum development, local technology, and cooperative production (El Kassim 1980:161-162).

There was an air of enthusiasm among the workers in the project. In particular, the Iraqi director of the project exerted notable efforts in managing the operations of the project (Jain 1982:31). The new programmes were introduced in the chosen schools, and the teachers began their work with the children and the adults.

A modest evaluation carried out after nearly a year of starting the project revealed that there was enthusiasm in the schools and in the community, but that little change had yet been made. This was due to absence of basic information about the community, low quality of personnel, alien experts, bureaucratic constraints, and the project management who lived far from the site (El Kassim 1980:221-222).

The project, however, succeeded at school level in introducing curricular modifications and model lesson plans, using audio-visual aids, organizing school gardens, implementing more relevant courses, organizing film shows,

arranging school visits to industrial and agricultural establishments, and providing school libraries or "reading corners" with reading materials. At the centre, the project organized a library and a reading room, workshops, community assemblies and exhibitions. As for out of school activities, the project succeeded in arranging home visits, village community centres, literacy centres, orientation of artisans, and women's training. In addition to that, the project was able to involve schools and the community in events such as the International Year of the Child, and to establish relations with relevant institutions and mass organizations (Jain 1982:19-28). In particular, the project contributed to the national campaign for combating illiteracy, and to compulsory primary education which were implemented at that time by the Iraqi government.

But the project was suffering from serious problems. It was in a stagnant state after three years of its initiation. El Kassim (1980:239-241) concluded that five major problems were well in evidence after three years of starting the project. Firstly, dependence on foreign experts which created a real problem when they left the project. However, neither the nature of expertise provided nor the activities performed were able to create local capacity to continue the work at the same level. This was partly due to inadequate selection of local personnel. Secondly, lack of coordination between different ministries and institutions to develop and train personnel to carry out various responsibilities which were difficult to be shouldered by the personnel of the Ministry of

Education alone. Thirdly, local people did not participate in the planning process and the villagers were not consulted before confronting them with the project. It was a top-bottom programme. Fourthly, neither the curricula were relevant nor the facilities were adequate. And finally, though it was conceived that the project could be a regional one, neighbouring Arab countries did not participate in it.

Towards the end of 1979 the Supervisory Committee held several meetings to review the situation and to find a way out. The committee decided to limit the experiment to 12 schools in one village and its surrounding area. In addition to that, the experiment was to be disseminated only if it proved to be successful. But how would the project be stimulated to move? The Committee put down a new plan. The basic tasks were to work with what is available and to postpone ambitious programmes, to strengthen schools relations with community through public forums and teachers/parents associations, to deepen scientific attitudes and to develop student's skills through increase of practical work, and to make use of school farms. But most of all, to stress formal education in the hope of paying due attention to non-formal education at a later stage, and to exploit all possible potentials to be found in the area. (PEPIAERD 1986a:6).

This plan - though it represented in certain aspects a shift away from the original objectives of the project which emphasized non-formal education towards formal education - was not put into practice. And in 1980 the Minister of Education

visited the project and suspended its implementation. He was apparently disappointed and discouraged with the results achieved thus far. But this was not the end of the story.

After a period of seven months, the local committee got permission to resume work on the project. There appeared to be a move to reexamine the structure, the organization and the supervision of the project. The wording of both the objectives, and the activities to be performed in order to attain them, were subjected to some modifications. The objectives included developing technological awareness of students, stressing productive work, emphasizing the role of women in the process of socialist transformations, coordinating activities with mass organizations and relevant institutions, and increasing the role to be played by education in the process of development. As for the activities, they comprised providing training for students and adults at the workshops of the project, establishing school farms where conditions are favourable, holding various practical training courses, organizing field trips to the sites of development projects in the surrounding area, organizing relevant film shows, and arranging educational and health forums (PEPIAERD 1986a:7). In substance, however, neither these objectives nor these activities were different from what the original plan of the project had attempted to achieve.

Though many of these activities were carried out between 1981-1983 and though the Supervisory Committee was replaced by a new committee, the objectives of the project remained far

from attainment. Accumulation of problems coincided with the stoppage of the international assistance from UNESCO in mid 1983. And in 1984, the project was administratively attached to the Directorate General of Education in Diala province where it is situated (El Kassim 1987a:17). The transfer of responsibility from the centre to the local institution meant that the project lost its glamour in the eyes of the central institution. One of the results of this move was that some key figures - including the director - of the project were transferred to other jobs (PEPIAERD 1986a:9).

The local body, however, together with the remaining workers in the project tried to go on carrying out activities such as holding training courses in certain areas of interest, organizing field trips to the sites of development projects, organizing a yearly fair for the products of the trainees, arranging film shows, and the like. These activities are the remains of the project now (p.10).

All in all, there was an undeniable measure of enthusiasm, of people involvement, of exposure to and interaction with outsiders, and of introducing different learning practices. El Kassim (1987a:15) maintains that the apparent positive elements of the project comprised enthusiasm and readiness of many workers in the project especially under adequate supervision and guidance, training programmes which reached many sections of the community, cooperation between workers in the project and specialists from industrial and agricultural establishments as well as mass organizations, and the

opportunity given to schools of benefiting from various teaching materials.

Yet these modest successes were overshadowed by a number of problems. In the first place, there appeared to be a serious lack of adequate situational analysis before introducing the project. Although the project was related to the national goal of rural development, this was not sufficient to get it to work properly. After more than five years from the beginning of the project, the socio-economic survey of the pilot area which was contracted with the Directorate of cultural Affairs by the UNESCO sector of social sciences, was incomplete (Jain 1982:11). Hence there appeared to be a serious lack in detailed information and reliable statistics on the political, social, economic, and cultural conditions of the area. This led to irrelevant activities and inefficient practices.

Another problem was related to providing the essential requirements of the project. When the project was about to start, the management of the project found no suitable buildings for the workshops. Therefore they resorted to make use of a school building to install all the workshops in it. This included metal work, woodwork, tailoring and dress-making, and home economics workshops (PEPIAERD 1986a:5). Apart from the function of a certain building's design and what this entails, it is of great importance for both the people who attempt to implement change, and the people who are affected by it to feel that they work in suitable conditions. The image

of the place and the impressions it makes on people has a great influence on the formation of ideas and concepts and perhaps on initial acceptance or rejection of an innovation. The same thing happened with school farms. There was no farm available for each school as was initially planned. The management solved the problem by permitting schools which had no farm to use the main farm of the project (p.5). This arrangement, however, solved one problem, only to create new ones: both teachers and students had to go from one place to another, they had to spend more time and effort, and most of all they did not feel the ownership of the farm which is so vital in such projects.

The third problem was related to the failure to enhance and qualitatively develop the knowledge and the skills of the workers especially the teachers. They were asked to perform new roles without providing them with the tools to do so. The number of training programmes were few, but they were also of limited value. For instance, the teachers who visited the U.K., Czechoslovakia and India reported that the experiences gained were not so useful due to limitations of time, language barriers, and the distance to travel (El Kassim 1980:166-171).

Another problem was related to conflict between what the project intended to introduce and the long accustomed practices embedded in the existing system of education. The project's failure to resolve this conflict greatly affected its course of action. For instance, the curricula unit in the Ministry of Education, for various reasons not the least of which having

no clear idea what all this was about, and having no adequate channels of information, was unprepared to develop relevant curricula for the project. Hence there were merely slight modifications of ordinary textbooks used by ordinary schools, and minor alterations in hours devoted to certain subjects. Certainly that was neither sufficient nor effective.

The committees constituted another source of problems. The selection of committee members was not based on sound considerations. The merit of many of the participants and their capacity to effectively contribute to the project did not rank as a priority in the process of selection. Besides, many key members were burdened with other tasks and responsibilities. To them working for an innovative project was just another job not a basically different one. Further, the committees included people with different qualifications, interests, and stances which in many cases led to thwarting chances of reaching constructive solutions, thus ending with compromises. Therefore the committees which were formed to implement the project were, to a large extent, neither effective nor efficient.

Bureaucratic procedures of the system constituted another problem. For instance, in 1982 UNESCO provided a number of training opportunities for the personnel of the project. But these were lost due to slow administrative procedures of the Ministry of Education (El Kassim 1987a:8). Further, valuable time and effort were spent in paper work, or in struggle to iron out hurdles related to maintenance of vehicles and repair

of equipment.

Another problem was the conflict over the aims of the project between the managerial and operational staff, and the decision makers (Jain 1982:31). This state of affairs negatively affected the course of the innovation, and resulted in confusion and lack of clarity. It also led to loss of direction and to carrying out activities at the discretion of bewildered people.

Another problem was the high rate of drop out of the project's personnel (PEPIAERD 1986a:8-9). This might be attributed to various reasons including frustration, disenchantment, and the lack of incentives. In addition to that, personal interest had its share in the drop out of personnel. Further, some key figures in the project were on secondment for a fixed period of time. Termination of the services of these people added a severe blow to the management of the project and negatively affected the project's course of action.

And yet another issue, and perhaps of a greater significance, was that the country's national development plan went far beyond what the project intended to achieve. The UNESCO general adviser to the project admitted that "the philosophy behind the project was somewhat backward and not in tune with the technical advancement propounded by Iraq for itself" (Jain 1982:31). Besides, the three major programmes of the project (i.e., compulsory primary education, eradication

of illiteracy among adults, and accelerated schools for over age children (10-15) were, in fact, disseminated all over the country as part of the national plan. This represented a real challenge to the project. Hence, the project was out of date when introduced: it lacked the futuristic dimension which was vital for its institutionalization and continuity.

Examining policies, strategies and practices in ten Arab countries as regards education and integrated rural development, Yacoub (1983:53-72) maintains that the effects of such programmes have remained below the desired level due to lack of clear policies and national plans as part of existing development plans, to absence of a specialized national agency which can take the basic responsibility of planning, implementing and coordinating integrated rural development projects, and to lack in numbers of qualified and trained personnel to work in such projects.

At a more specific level, El Kassim (1987a:16-17) reflects on the project in the particular context of Iraq, and indicates that the problems centred around lack in the required numbers of personnel which is augmented by drop out as time passes, serious lack in evaluating and following up the performance of local workers, lack of basic organizational, administrative and technical skills to devise programmes and activities, slowness in maintaining faulty machines and equipment, lack of foreign expertise, lack of clear formulas as regards working together with schools, ineffective committees, and conflicting personal views on the philosophy and the strategy of the project.

All these factors in various combinations and at different stages have enfeebled the project and gradually integrated its practices into the existing system of education. And though official documents are still referring to the experiment as an innovative project, there appears to be no evidence, at the moment, to support this case.

2. The Manual Skills Workshops in Primary Schools

The idea of establishing this programme goes back to 1975 as part of the Ministry of Education attempt to develop the curricula of primary schools, and to make them more relevant to the needs of the society (Mohammed 1981). The idea was given a further push by the Primary Schools Regulations No.30 of 1978 which stressed, in its Third Item of Article Two, the need to bring up children on the liking of work, on practising it, and on knowing how to deal with basic, relevant, and simple tools in a sound manner (Iraqi Ministry of Education 1987a).

The project was introduced in 1978 in the form of workshops adjoined to selected primary schools all over the country. The project basically aims at combining academic knowledge with work, providing children with essential manual skills in selected areas, and promoting positive attitudes towards work and collective practices. Areas of training include: woodwork and wood carving, carpet knitting, basic electrical work, metal work, book binding, ceramic clay, and, tailoring and embroidering. The schools can choose from these areas in accordance with their capacity, the qualifications of

teachers, and the local environment (pp.2-3).

The number of workshops in primary schools has increased over the years. In the academic year 1978/1979 there were 87 workshops. The number reached 180 in the year 1986/1987. This represents a yearly increase of nearly 13% (p.3).

The workshops are mainly operated and managed by art education teachers. These, however, are not highly specialized teachers. But most of them had participated in training courses.

Training is usually provided by the Manual Skills Centres. Three of these centres were first established in 1970 with the assistance of UNICEF. By 1980 they covered all the provinces of Iraq. They provide training for teachers of art education as well as teachers who operate the workshops in primary schools. These centres have helped teachers to increase their knowledge, and to develop their skills. Abdul Latif et al. (1984) acknowledge the importance of these centres in giving teachers the help and guidance they needed in the field of fine arts and crafts. The writers also indicate the need of these centres for exchanging experiences with each other, for more adequate materials and equipment, and for more sound supervision.

The syllabus of the workshop activity makes use of the existing syllabus of art education, indigenous industries in the community or locality, and the directives of the Ministry

of Education. There is, thus, no specific and detailed syllabus. The task of devising and arranging learning activities is left to the teacher depending on his abilities and accumulated experiences (Al Nassir 1985:31-32).

The workshops depend mainly on the surrounding environment for materials, and on out of date or unused equipment and furniture of schools. And they are basically funded from the allocations devoted to art education which tend to be rather low.

This programme, however, has suffered from lack of adequate materials and equipment, lack of technical supervision, lack of highly skilled and trained teachers, and lack of relevant materials in schools libraries. It has also suffered from unsuitability of buildings, lack of incentives for the teachers, and from a rigid weekly study plan which uses the art education hours for workshop activities (Iraqi Ministry of Education 1987a).

Though there have been many instances of individual initiatives and personal accomplishments on the part of teachers such as arranging satisfactory displays for the works of children, or visiting other workshops to exchange experiences, these positive elements are - to a large extent - overshadowed by the constraints cited above.

3. The Comprehensive Secondary School Project

The idea of this project was first put forward in the early 1970s (Iraqi Ministry of Education 1970, El Kassim et al. 1982:1-2). The First Educational Seminar which was held in 1970 called for creating new formulas which combine academic and vocational studies in one secondary school. That call was coupled with adopting a recommendation to introduce a project based on the concept of the comprehensive secondary school. And that call was again repeated in the Second and the Third Seminars which had a great effect on shaping the educational policy in Iraq as mentioned in chapter one.

The basic aims of the project were defined as removing the barrier between academic and vocational pursuits, putting together students with mixed abilities and backgrounds, and creating a suitable and sound educational atmosphere for both the students and the teachers.

The intention to establish a number of comprehensive secondary schools was put to UNESCO and the World Bank. And an international commission from these two agencies studied the idea. The World Bank agreed on establishing four schools with a loan to cover the buildings and part of its requirements. The agreement between the Iraqi government and the World Bank was signed in 1971 (El Kassim et al. 1982:41).

Towards the end of 1971 a committee was set up and presided over by an outstanding Iraqi educationist, to examine

the basic principles on which the project was to be based, to define the requirements, and to suggest possible methods of implementation. But while the suggestions of the intensive study conducted by the committee were sound and well-balanced, these, unfortunately, were not put into practice. For example, admission of students was opened to graduates of the primary cycle instead of the graduates of the lower secondary cycle as the committee recommended on the basis that older students can make choices as regards their educational pursuits (pp.41-61).

Four sites for the four schools were chosen on the basis of mixed economic and social levels of the people in the surrounding areas to achieve the principle of comprehensiveness, and also on the existence of nearby industrial establishments and farms to utilize them in practical training. The buildings were designed and constructed according to the educational and technical specifications approved by the World Bank. The capacity of each school was put at 800-1000 students (pp.43-44).

The equipment and tools were largely imported according to the specifications set by Iraqi and foreign experts under the supervision of the World Bank. This included Science labs, language labs, machines and tools, teaching aids, and furniture. The Iraqi Ministry of Education also asked for the assistance of experts from the World Bank and UNESCO to supervise the installation of machines and the arrangement of the furniture. However, the duration of constructing and furnishing the schools took more than five years. Two schools

were opened in the academic year 1979/1980, and the other two in 1980/1981 (pp.44-45).

Theoretically, the policy of admission in the schools was based on accepting students of mixed abilities and different economic and social backgrounds, taking into consideration their desire and inclinations. But the students were immature to decide for themselves or to base their decisions on full awareness of the purpose of these new types of schools which they had never heard of before. Thus the choice appeared to be of the parents rather than the students. Parents' choice, however, was based on a number of considerations. Firstly, the availability of a boarding wing in two of the schools which were established outside Baghdad. Secondly, the possible chance of mastering or learning a vocation that might be of benefit. Thirdly, the belief of some parents that these schools are some sort of vocational schools more suitable for their sons and daughters due to their low academic abilities. And finally, the nearness of the school for the children who happened to live within its geographical area (p.46).

Within a period of less than two academic years from the beginning of the project, the percentage of students' drop out was more than 15%. This could be attributed to absence of incentives for students, a longer day in comparison to ordinary secondary schools, overcrowded curriculum, unclear objectives of the school, and inconveniences due to lack of adequate services in the boarding section. On top of that one of the schools was closed down mainly for the need of its building to

be occupied by another educational institution, but also because of low enrolment (p.47).

As for the administrators of the schools, most of them had never been acquainted with the philosophy and the objectives of the comprehensive school before (p.48). However, eight teachers were selected and sent to England and Sweden for 4-6 months training programme. Upon returning, four of them were appointed as headteachers, and the other four as their deputies in the four schools. Yet in a period of less than two years, five people out of the eight had dropped out. Besides, some posts in the schools had never been filled such as a deputy headteacher for coordination and a deputy headteacher for counselling. These two posts for example had negatively affected coordination between school and community, and the supervision and counselling of students in accordance with their ability, aptitude and inclinations (pp.48-49).

Teachers were chosen from other secondary schools. They were, thus, chosen as if the schools were another ordinary schools. They had no idea of the philosophy of the school or its objectives. Nor were they motivated to handle its new and additional tasks with the required enthusiasm. This was natural since they neither showed a will to work in such a school, nor trained for this role. Moreover, the teachers were governed by the same existing administrative rules as regards transfer, promotion and the like (p.50). As a result of this, the available tools and equipment were underused, and the same methods of teaching as those in ordinary schools prevailed.

As for the curricula, the committee which defined the components of the project advocated that these should be based on three principles: comprehensiveness, integration, and close ties with community. These principles have wide implications. Comprehensiveness does not only mean a variety of subjects and activities, but also means paying due attention to the abilities and aptitudes of the students and how to direct these in a way conducive to developing their personalities and promoting their life. Integration at the horizontal level means cutting across boundaries of subjects and exploring more relationships between them. It also means relating knowledge to work. At the vertical level, the contents of subjects should support and reinforce each other throughout the years of schooling. The third principle requires reflecting the characteristics, the needs and the aspirations of the community in the curricula, and ensuring the contribution of students in developing their community. But contrary to the advocation of the committee, the syllabuses which were actually laid down had neglected these three principles. The academic part was not different from that offered in general academic secondary schools. The vocational and technical part was borrowed from existing vocational schools. Hence the curriculum was far from being new, and far from catering for students' individual differences (pp.52-53).

Nevertheless, the textbooks were not ready when the project started. Thus, the students used the textbooks which were in use in general and vocational secondary schools as well as those in use in teacher training institutes. The weekly

study plan, which means the distribution of hours on different subjects and activities for each grade, underwent many changes but the weekly hours remained more than those of the ordinary schools (pp.53-56).

Therefore it appeared that the curricula, the textbooks, and the study plan were far from what was originally thought of and planned for. And the comprehensive schools did not differ from what other schools already offered with the exception of adding some theoretical and practical items to vocational studies, and some theoretical and practical items to the area of fine arts (four hours weekly in total) (pp.56-57).

As for the methods of evaluation in the schools, the long-accustomed formulas of examinations prevailed. The suggestions of the afore-mentioned committee were not taken up (pp.60-61). This could partly be attributed to absence of a new regulation to govern the schools. And though the committee had prepared a special regulation for the schools, this was not put into practice (p.51). Hence, administratively, organizationally and legally, the new project was governed by the existing regulations. Gradually the schools tended to, and encouraged to concentrate on a special field of study. There were three available fields: industrial arts, commercial studies, and agricultural studies (p.57). This meant that the comprehensive schools turned out to be no more than vocational schools.

All this led to confusion, disenchantment, and lack of

seriousness among the administrators, the teachers, and consequently the students. Besides, learning activities were ineffectively managed, and the schools' potential was inefficiently used. Yet to this day, the three schools are still having signs on their doors. Each sign reads: the comprehensive secondary school.

4. Pre-Vocational Education Units in Lower Secondary Schools

Emphasis on the importance of work experience which has been advocated since the early seventies was behind introducing this programme. In 1976 the Council of Education approved the idea of introducing pre-vocational education units in lower secondary schools. The general aim was to combine academic studies with practical ones. The main objectives were to discover and direct vocational and technical abilities of students, to inculcate likeness and respect for manual work, to direct extra curricular activities towards maintaining school in good order and producing useful things for the school, to deepen collective practices, and to encourage students to pursue vocational education in the future (Iraqi Ministry of Education 1982b:15-16).

The experiment began in 1978 by establishing 20 units of pre-vocational education in 20 schools distributed all over the country. Rooms in each of these schools were chosen for this purpose and equipped with furniture, tools, and some machines. Later, however, suitable halls for practical activities were incorporated in the architectural design of newly-constructed

schools. Two hours were added to the study plan where the workshop could be used after school official hours. The syllabus comprised training in the following areas: woodwork, metal work, basic electrical work, industrial drawing, and ceramics. Other areas can be added in accordance with the availability of physical resources in the environment. any profit which might be gained as a result of selling students' products can be divided between the school and the students (UNESCO 1982 : 236-265, Iraqi Ministry of Education 1986a : 15-20).

The number of schools with pre-vocational education units has increased steadily. In the academic year 1980/1981 there were 38 schools, and the percentage of students who were involved in this experiment constituted 2.9% of the total number of students in the lower secondary cycle (UNESCO 1982:260). In 1986/1987 the number of schools reached 75 of which 9 were girls schools, and the percentage of students involved reached 5.3% (Al Nassir 1987:40). And though the number of hours devoted for practical education has increased to four, these activities have remained to be performed outside the prescribed study plan as extra curricular activities.

Attempting to examine the pre-vocational education units from the points of view of administrators and teachers, Abdul Latif and Ali (1982:49-50) found that most students like practical activities and prefer them to academic subjects, and that the experiment played a role in deepening collective practices, in promoting respect for work, and in developing

students' manual skills. It also contributed to maintaining schools in a better order, and to the production of some useful things for schools. Nevertheless, the writers also found that the units were not equally distributed on provinces, and that the experiment had been mainly introduced in boys' schools. In addition to that, the study disclosed that the number of qualified teachers was low, that training opportunities for teachers were not adequate, that support systems such as technical supervision were inappropriate, that the equipment and tools were not sufficient and satisfactory, and that there were a set of problems related to maintenance of machines, to spare parts and to the designs of the halls. The study also pointed out that the time devoted to these activities was not sufficient and that students in the last grade of the cycle paid little attention to this activity due to the fact that it is a non-examined subject and that the educational process is dominated by a rigid examination system.

However, the Ministry of Education is working towards reviewing areas of practical education, relating training to more new technologies, reorganizing the services provided, stocking school libraries with relevant materials, and treating prevocational education as an integral part of the curriculum and as a subject to be examined (UNESCO 1986:10-16).

5. The Educational Television Project

The beginnings of transmitted educational activities in the form of live lessons and programmes go back to the early

1960s in Iraq. At that time these were transmitted through the main T.V. station in the country (Iraqi Ministry of Education 1982b:20-22). But towards the end of that decade, this arrangement was seen as insufficient. Two major sources which affected the decision to start the ETV project in 1971 can be discerned. Firstly, the strong movement in the early 1970s to introduce changes in the educational system, and secondly, the calls made by international educational circles to introduce educational technology in order to promote the teaching/learning process, which were taken for granted in most developing countries.

This project aims at contributing to raise the efficiency and performance of teachers and consequently to raise the quality of the teaching process, at contributing to create national awareness, and at disseminating educational awareness among people. To this end, the tasks of the project have included transmitting taped lessons which cover the curriculum of primary and secondary cycles, acquainting teachers with new trends in teaching methods, acquainting both students and parents with available educational opportunities, recording and transmitting some distinguished school activities, and covering the activities of the Ministry of Education (Iraqi Ministry of Education 1987b).

In fact, the Educational Television Project has continued the task of carrying out these activities. And there is an increase in the quantity of the transmitted lessons and a measure of improvement in its quality. Nevertheless, the

project has suffered from problems, some of which appear to be chronic. Internally, problems are mainly related to lack of skilled personnel, lack of training opportunities for personnel, and lack of equipment and spare parts. Externally, problems are basically centred around inadequate funding, the effects of changes in the textbooks on the production of corresponding T.V. lessons in due time, and lack of exchanging experiences and programmes with similar projects in Arab countries (Iraqi Ministry of Education 1987b).

As for the problems related to the use of ETV in schools, incompatible time of transmission with the timetable of schools was considered a major one (Iraqi Ministry of Education 1982b:20-22). However, many of the problems associated with ETV cited by Hurst (1983:9-10) might well be applicable also. Yet these problems seemed not to affect the decision to go on with this project. Black and white transmission was replaced by coloured one in the early 1980s, and more sophisticated devices have been added. But on what ground can this be justified? The question of actual level of ETV use in schools and the question of the costs and the benefits of the project appear to be side-stepped by the official reports. Many people within the circles of the Ministry of Education and especially among those responsible for the ETV unit, seem to be satisfied with the project on the assumption that it greatly enhances the teaching/learning process. Not only that, but they firmly hold that ETV is a complementary rather than a substitute to the work of the teacher, and an adequate tool in creating educational awareness among people.

In this project, a state of stagnation can be elicited. In a sense, educational activities have, to a large extent, been carried out in the same way since the initiation of the project. For instance, lessons are usually presented in the form of a lecture which lacks variety. The process of lesson presentation is monotonous. And there appears to be no serious attempt to depart from what actually happens in classroom. The televised lessons are geared towards examinations. Emphasis on subject areas that are to be examined at the end of the academic year can be noticed clearly. Here lies a paradox: using modern technology to inculcate the practices which constraint change. Moreover, almost all educational programmes lack artistry and professionalism. Consequently, the quality level of production is seriously low. Therefore, during the life of this project, and up until now, genuine conceptual and structural improvements have been minimal.

6. The Teaching of Foreign Languages Project

Though the teaching of foreign languages alongside the English language, which enjoys a special status, was introduced in the Iraqi schools between 1930-1940 (El Kassim et al. 1986:13), in the early 1970s there appeared to be once again a move to introduce certain living languages in addition to the English language.

In the academic year 1970/1971 the French language was introduced in the first grade of some selected secondary schools in Baghdad. It was introduced as an optional language

on experimental basis with a view to expand it in subsequent years. The introduction of this experiment, however, was made possible with the assistance of French cultural institutions (p.14).

Several measures were taken to ensure a fair amount of success: applying the experiment in selected schools, modifying the distribution of hours in the weekly study plan, providing textbook printed by French institutions, and asking the Ministry of Higher Education and Scientific Research to introduce the French, German, and Russian languages in some colleges as an optional subject in order that students who study such languages can continue studying them at the university (pp. 14-15).

It is worthwhile to note that the Directorate General for Cultural Relations in the Ministry of Education was the body which advocated the programme, presented it to the Council of Education for approval, and later took the responsibility of implementing and supervising it (p.16). This was unusual because this Directorate has not been directly involved in the process of introducing change in the system, and it had neither the means to research the project nor the capacity to plan for it let alone to implement it. At any rate, the role which that Directorate played in signing the educational cooperation agreement with the French side can not justify taking the responsibility of introducing change in its hands.

However, the experiment was opened to several questions. Firstly, the programme was not preceded by any situational analysis. It was an improvised programme without adequate justifications. Secondly, it was unclear why it was necessary to introduce a second foreign language. Thirdly, there appeared to be no agreement on what language to teach in response to educational, cultural, social, and political needs. And fourthly, there was clear absence of adequate considerations with regard to the requirements of implementation such as provision of qualified teachers, teaching aids, and supervision to cite but a few elements (pp.16-17). Therefore, in 1975 evaluation reports remarked that the programme suffered from many problems (p.17). Nevertheless, the policy trend at that time was to continue with the experiment in order to support cultural relations with France, and to benefit from sending students to France for higher education. It was also seen important to continue evaluating the programme so that a final opinion can be reached on whether to keep it or to close it down (p.17). That experiment was. in many respects, a failure.

In 1980 the Council of Education approved introducing the French, the Spanish, and the Russian languages in some selected lower secondary schools in the Baghdad area. The project aimed at strengthening communication with the world, deepening understanding of other cultures, and playing a role in the process of development especially through the industry and construction sectors. The requirements of the project were examined in the light of the lessons of the past experience,

and the field reports on schools in the Baghdad area. However, the new project began in the academic year 1980/1981 in 12 schools. And though there was some confusion about the academic status of these languages in relation to the English language, it was decided later to keep the English language as a compulsory subject and the second foreign language as an optional subject but to be examined like the rest of the subjects (pp. 18-19).

The experiment expanded on a yearly basis to reach 23 schools in the academic year 1985/86. And some appropriate upper secondary schools were chosen to teach these languages in order to receive the students who had completed lower secondary education. Members of the Iraqi teaching staff increased to reach 76 teachers in 1985/86. Most of them were trained in Iraqi institutions and/or abroad. Training courses were intensive in nature. Between 1980-1986 15 training courses were organized in Iraq. These mostly ranged between 1-3 months. And 16 training courses were organized abroad (i.e. in the countries where the languages are spoken) ranging between 1 month - 2 years. Besides, distinguished students were sent abroad in order to practise the use of the foreign language in real situations. These visits were carried out under the supervision of their teachers. Between 1981-1986, there were four such visits during the summer holiday. Moreover, there were extra-curricular activities such as drama presentations and competitions between schools. In such activities, bright students were usually rewarded (pp 19-22).

In their evaluation of the experiment, El Kassim et al (1986:115-128) found that the students expressed a desire to learn a second foreign language, and that the French language ranked high in comparison to the other two languages. In fact around half of the total number of students were studying the French language. The study found that the lower secondary stage appeared to be suitable for introducing the project, and that the parents encouraged their children to learn the second foreign language. While most parents maintained that they were convinced of the importance of learning a foreign language, some of the parents showed concern about the effects of a second foreign language on their children's achievement. In addition to that, the study disclosed a number of difficulties which accompanied the experiment. These included lack of supporting materials and references, lack of teaching aids and libraries, lack of incentives, lack of language labs, lack of coordination between different bodies responsible for the project, irrelevance of these languages to the daily life of the student, and the effects of adding a second foreign language to an already overcrowded curriculum on students achievement. Most of the findings of this study are consistent with the findings of earlier studies on this project such as the study of Al Ganabi (1984).

7. The Resident Supervisor Project

This arrangement which began late in 1977 emphasized the role of the primary headteacher as a supervisor. It aimed at developing the supervisory skills of headteachers, and reducing

the work load on existing supervisors. It was first introduced in a limited number of primary schools, and later expanded horizontally on a yearly basis. Between 1977 and 1978 two training courses were organized to provide the headteachers of the chosen schools with the necessary knowledge and skills to perform their roles (Iraqi Ministry of Education 1982b : 30-32).

Since its initiation, this experiment ran into problems. Firstly, headteachers are usually loaded with responsibilities, and much of the administrative and organizational work is often carried out by them or under their close supervision. Most of primary schools have neither the post of a secretary nor the post of an accountant. This is not to mention the social and political responsibilities of headteachers which are numerous and diverse. And this is also not to mention the headteachers basic task as leaders of educational institutions. The experiment thus added extra work to the already burdened headteachers. Secondly, headteachers encountered difficulties in evaluating teacher's work in their schools not the least of which was the issue of objectivity. On the one hand there are a number of complicated issues related to the technical skill of managing evaluation, the capacity to communicate it to the teacher in a meaningful way, and the ability to build on it to promote the quality of the teaching/learning process. On the other hand, due to working closely with teachers and to interacting daily with them, headteachers are highly prone to hold preconceptions about teachers. This can only affect their judgement in a way which reduces its objective elements.

Hence, at best objectivity can never be high, and at worst, unobjectivity can undermine the relationship between the headteacher and teachers, and between teachers themselves, and can poison the atmosphere of the school. And thirdly, headteachers, no matter what skills they possess, do need different views and different ideas from outside the school. Therefore the experiment of the Resident Supervisor suffered from closing the school to one-sided supervision, and from self-echoing, which resulted in repeating the same mistakes.

It is true that the headteachers had participated in a training course, but it is equally true that the kind of training provided was insufficient to equip them with the necessary skills and knowledge to play the new role properly or satisfactorily. In his attempt to evaluate the experiment of the Resident Supervisor, Hamid (1981) concluded that the experiment failed to improve the supervisory and administrative duties. It also failed to promote human relations within the school, with the community and with other educational institutions in a positive manner.

Though at one time this experiment was seen as a solution to shortage in qualified supervisors due to the huge expansion of the educational system especially after introducing compulsory primary education, it was later seen as causing more problems and solving none. In the early 1980s, the experiment faded away and finally officially ended.

8. The Productive Schools Project

The Governarate of Ta'mim - a province in the mid north of Iraq - made a local initiative in 1982/1983, and introduced what was called the "productive schools project". This experiment was, to a large extent, made possible by the interest and support of the governor of the province (Iraqi Ministry of Education 1987c:8-13).

The basic idea was that schools can produce and sell in the market useful and profitable items, either in the area of crops and plants or in crafts. The choice of the area should be in accordance with the potential of the school, the desire of the students, and the needs of the market.

The project was seen as a collective effort to acquaint students with the importance and value of work, to translate the concept of curriculum as a productive activity into practice, to impart a sense of responsibility among students through participation in the project, to strengthen the ties between students and teachers, to learn how to make use of materials in local environment, and to secure additional funds for the school through selling of products (pp. 8-9)

The experiment began with eight schools. Essential equipments and tools were provided by the Directorate General of Education in the province. Initial funding for production came from contributions of both the teachers and the students in each school. Upon selling of products, part of the profit

went to contributors, and the other part left to form an accumulated capital for the project and the school (Al Nassir 1987:35-37). In fact, the success with which the products were met by the people led to expand the project. In the academic year 1985/1986 the number of schools which applied the experiment reached 23 (Iraqi Ministry of Education 1987c:10).

The Directorate General of Education in the province followed up the experiment through continuous field visits to the schools. It convened seminars attended by the headteachers or responsible teachers to study the experiment's course of action, and to suggest possible ways to develop it. And it also played a vital role in marshalling support to the experiment through its connections with mass organizations and economic establishments without which the marketing of products would have been difficult (p.12).

Reaction from the centre has been positive. The Ministry of Education has backed up and supported the project, and provided local authorities with advice and suggestions to develop it. In addition to that, two teams of researchers from the Ministry conducted two evaluative studies of the project between 1983 and 1986 (Iraqi Ministry of Education 1983, Iraqi Ministry of Education 1986d). The main findings of these studies indicated that the project positively contributed to increasing students experiences, generating enthusiasm towards productive work, and strengthening ties with the community. Nevertheless, in general the experiment negatively affected student's achievement measured by examination results.

However, in 1986 a central decision was taken that for the near future, the experiment should follow a number of directives. These included limiting the project to its current number of schools in order to deepen it, avoiding emphasis on the productive side at the expense of the educational side of the new programme, concentrating on a limited number of products in order to master the work and to reach specialization level, creating awareness of the importance of the project in the school and outside it, and following up and evaluating the project continuously (Iraqi Ministry of Education 1987c:12-13). Since then, the project has moved along these guidelines.

9. The Multi-Medium Teacher Training Project

This project intended to provide in-service training for teachers both directly and indirectly. This meant depending basically on training through correspondence, but also making use of assignments, working papers, reference sheets, radio and T.V. programmes, seminars, audio-visual aids, guided learning, and formal classes (Iraqi Ministry of Education 1982b:5).

The project was initiated in the first half of the 1970s in collaboration with UNICEF and the UNRWA Institute based in Beirut. It aimed at developing professional skills of teachers, and renewing their teaching methods, with a view to reflect the knowledge and skills gained in classroom practices. It was basically directed to primary supervisors and teachers, but later extended to cover secondary school teachers (p.5).

Studies on innovative projects have neglected this project with the exception of El Kassim (1976) evaluation of the project and its first refreshing course. In its suggestions for developing the project, the study revealed unclear objectives, low use or absence of training methods other than the prescribed assignments, and lack of evaluation whether of the trainees, the programme of training, or the project itself. The suggestions of that study, however, have not been used to alter the existing and accustomed practices.

The project had the potential of solving the problem of the limited time of trainees, and the possible disruption of work in schools when teachers leave them for training. The trainees were asked to attend classes once a week on the assumption that they would indulge in other training activities managed and coordinated by the project during the rest of the week's days. Yet these other training activities which represented the new approach were minimal or even absent. Not only this but the once-a-week attendance of classes was mainly of a lecture-type training. Therefore the training programme of the project was in many respects similar to common existing training programmes. The same story was repeated when the project was revived in 1983 after it had faded away. The existing practices have remained too strong to be changed by the weak arrangements of the project.

10. The Headteacher Project

The idea of this arrangement is that the most qualified and experienced teacher in the school can act as a leader for his colleagues with the same specialization (Iraqi Ministry of Education 1982b:29-30) through arranging for them visits to his class, assisting them in drawing up a lesson plan or lesson presentation and the like, and giving them advice and support. In a sense then, he acts as a supervisor with the privilege of being an insider to the school. As a teacher, he is seen in a position to understand and deal with the multi-faceted daily problems encountered in the school.

The experiment was first introduced in 1967/68, then stopped, and was introduced again in 1977/78. Reports on this arrangement are very few. However, Latif (1980) attempted to describe the merits and shortcomings of the project from the points of view of administrators, supervisors, and headteachers. He found that the experiment had the merit of helping teachers in their work. The writer noted that the degree of success differed from one specialization to another, and related to the volume of workload on the part of the headteacher. He also pointed out that instances of failure were mainly due to ill-considered selection of headteachers, and to lack of support systems such as cooperation and coordination with the supervisory machinery and school administration.

Though this practice was introduced in a limited number of secondary schools, it has again become less distinct.

11. The Computer Project

Early attempts to introduce computers in schools go back to 1977 when a simplified programme in Arabic on a micro computer was introduced to children of the age group 10-14 to study their responses to it. In the following year, an attempt was made to introduce micro-computers with the same programme in the last grade of four selected primary schools. Though this attempt was well received by the children, and though there were some positive results, it was neither well researched nor well planned. (Iraqi Ministry of Education 1988d).

Later, the programme was developed and introduced in four lower secondary schools in 1983/84. Each school was provided with a lab and 13 computers. The syllabus included an introduction to the computer, its parts, its general uses, and how to programme it. And the teachers were trained to handle the new practice. A report conducted by the Ministry (Iraqi Ministry of Education 1985b) indicated that there were a number of problems associated with that attempt. These included lack of adequate training for teachers which resulted in poorly managed activities. This led the students to face difficulties, and to pay the activity little attention especially due to the fact that it was not part of the subjects to be examined. In addition to that, the experiment suffered

from lack of balanced syllabuses in the three grades, lack of supervision and follow up, and lack of incentives for teachers. Therefore the report recommended not to expand the experiment, and to evaluate it adequately so that a decision could be taken about its continuity.

Against this background a decision was taken in the mid 1980s to fully study the question of introducing computers in schools on sound foundations, and to disseminate such a project gradually through the system of education. To this end, a committee was set up to define the objectives of the project and to prepare its requirements on the basis of past experiences, experiences of other countries especially Arab countries, and available scientific research on the issue under investigation. The committee defined a number of objectives which included acquainting the students in all cycles of education with the computer and its uses, teaching the students of the secondary cycle the computer as an integrated subject in the curriculum, and using the computer as a teaching aid in certain subjects. In addition to that, the committee emphasized the need to create awareness among people of the importance of using the computer in helping students to develop their abilities and scientific pursuits. The committee also selected the teachers according to certain specifications, and arranged intensive training courses for them. In one respect, some of these teachers were viewed as future trainers of their colleagues in the schools they work in. Other requirements such as devising syllabuses, selecting schools, providing computers and programmes, and the like, were also prepared.

And in the academic year 1988/89 the project was introduced in the first grade of chosen upper secondary schools. In fact, an enabling factor to this project is that computers are locally assembled, thus they can more easily be provided and maintained (Iraqi Ministry of Education 1988d).

12. The Rotating Student Project

This arrangement is based on changing the long established classroom's organization in the school. Instead of allotting one classroom to each group of students in a particular grade, the project assigns a classroom for each subject to be studied and moves the students from one classroom to another in accordance with a fixed timetable. Advocates of this arrangement advance a number of merits: eliminating boredom and weariness due to staying at the same classroom all year around, giving students more responsibility and freedom, preparing students for the university stage, reducing effort on the part of teachers, economizing on the numbers of teachers, and economizing on the number of classrooms (Iraqi Ministry of Education 1986b).

The idea was introduced in the academic year 1978/79 in 15 secondary schools and expanded to reach 68 schools in 1986. The experiment has faced problems related to the unsuitability of some school buildings, to noise of students' movement from one room to another, and to wasting time due to student's movement at the same time. Nevertheless, supervisor's reports have shown that this arrangement can help in giving students

an opportunity to move around and to change scenes, in reducing the number of rooms needed to carry out the same activities, and in saving teacher's time because, for example, certain teaching aids need time to be fixed only to be removed at the end of the session. This means that student's time can also be saved.

13. The Unified Secondary School Project

Although the idea of this project goes back to the early 1970s (Al Nassir and Al Mayah 1986), it is still at the study phase. However, efforts to introduce the project were culminated in a study on the project appeared in 1988 (Al Nassir et al). This study delineated the objectives of the project as attempting to give students a better opportunity in choosing the subjects which match their abilities and inclinations, achieving the principle of self-learning, emphasizing work as a basic value in life and relating theory to practice, and imparting a kind of education which enables students to make their own choices and to rely on themselves (pp. 20-21).

The basic idea of the school is to eliminate the division of general upper secondary education into scientific and literacy sections, to reduce the unbalanced concentration of students in one of the two sections, and to provide the students with a basic amount of theoretical and practical knowledge which can enable them to continue their higher studies or to enter the labour market (p.18). As for the main

characteristics of the school, these can be summarized as eliminating division in general academic education, providing both obligatory and optional subjects in accordance with student's abilities and inclinations as well as the needs of the society, emphasizing the teaching of maths and sciences, and stressing the practical element of the educational process. The school, however is not seen as an alternative to the vocational school (p.19).

The curriculum of this school largely differs from that of the ordinary secondary school. There are 11 compulsory subjects which include Islamic Education, Arabic language, Mathematics, Computer Science, English Language, Physics, Social Sciences, P.E., Art Education, Principles of Technology, and principles of scientific Research. This constitutes 78% of the curriculum. Besides, there are four optional specialization areas which are considered as an enrichment to the compulsory subjects. They include Maths and Physics (five subjects), Biological studies (five subjects), Social Sciences (seven subjects), and Languages and Literature (nine subjects). The student can choose two subjects out of these which constitute 11% of the curriculum. Moreover there are ten subjects of practical nature which include technical, agricultural, craft, and applied subjects. The student can also choose two subjects which constitute 11% of the curriculum (pp. 22-25).

The study also gave a detailed description of the teaching materials required (labs, teaching aids, computers, school

broadcast unit, workshops, library, etc.), and the specifications of the school building, and its furniture. Also, the study defined the characteristics of administrators and the teachers, the required training programmes, as well as possible incentives. And the study made suggestions as regards the evaluation and examination system of the school, and presented a draft of a new legislation to govern the school. Not only that, but the study also presented possible alternatives for an early start of the project such as distributing the large variety of subjects on a number of schools in one geographical area, choosing highly qualified teachers from existing secondary schools, opting for lecturers in certain areas rather than insisting that all the teachers must be on the staff, and modifying some existing textbooks instead of devising new ones (pp.26-42).

Perhaps one of the most significant features of this study is that it linked the provision of the requirements of the school to time-frames. Though the calculations of time can be arbitrary, this attempt represents a step forward in thinking about and planning for new programmes because the issue of time has not been given proper attention thus far.

However, one reservation needs to be mentioned. It appears far from right to resort to use existing textbooks or to modify them in the hope to replace them by new ones in a later stage for example. For it can be risky to think of existing structures and contents as immediate solutions with a view to change them later. This in many cases leads to

accepting what is available and starting making compromises and concessions.

14. The Accelerated Schools

This programme began in 1977/1978 to provide a parallel education to the primary cycle for the children of the age group 10-15 who missed the chance of schooling. These were considered older than the official school age, but also younger than the age limit to be absorbed by the national campaign for eradicating illiteracy which started in 1978.

The schools which operated under this scheme provided these children with the same curriculum of the ordinary primary schools. But the arrangement was to cover the curriculum in four years instead of six. This was largely based on the assumption that the development stage of these children differs from that of ordinary schools children. Besides more practical elements were added to school activities.

After completion of the first cohort of compulsory primary education the cycle, and after completion of the literacy campaign, these schools began to fade out. The major source which provided illiterate children of the age group 10-15 was eliminated (Al Nassir 1985:35-36).

15. The Pilot Project for the Development of Teaching Biological Sciences

This project began in the academic year 1975/1976 with the assistance of ALESCO. It was an integrated approach to teaching biology in secondary schools supported by new textbooks in tune with the new teaching method.

The experiment was introduced in eight selected secondary schools. It was applied for four years. During that time, the project was supervised and followed up by two specialized committees. The project, however, suffered from two main problems: delays in providing the new textbooks to the students, and lack of teacher's preparation for such an approach (Iraqi Ministry of Education 1982b:28-29). When the project ended in 1979, the lessons learned from the application of the new approach guided the process of revising the existing biology textbooks in schools, and affected the programmes of teacher training (UNESCO 1982:253).

16. The Talented Students Project

The planning phase of this project represents an attempt to search for a sound start. Between 1982-1986 the committee which was assigned the task of establishing a special secondary school for talented students achieved a number of significant steps. These included organizing a three-day specialized forum centred around defining the aims and objectives of the project and its educational, human, and material requirements. They also included drawing up a special regulation for the school,

developing new syllabuses, selecting staff needed for the school, developing achievement and aptitude tests for students, and preparing the architectural design of the school. However, the project was suspended in 1986 with a view to introduce it later (Iraqi Ministry of Education 1988a).

Other Practices

There are other practices or arrangements cited in the official documents such as Students Visits to Productive Establishments, and Educational Guidance. These practices are usually treated in these documents as innovative projects. But they lack the features of projects (e.g. distinct stages, cost calculations etc). Hence, I posit that these can more adequately be described as practices or arrangements. Further, the measure of newness in these arrangements is relative to common practices of the system of education. The Students Visits to Productive Establishments can, thus, be seen as an integral part (i.e., an extra-curricular activity) of a sound school curriculum rather than an innovative project.

However, Students Visits to Productive Establishments practice aims at acquainting students with industrial and agricultural establishments in the country, directing students towards vocational education, and creating national awareness. Schools are asked to arrange such visits according to a yearly plan (Ministry of Planning 1975, Al Nassir 1987:34). As for the Educational Guidance, it aims at helping students to solve their psychological and educational problems by appointing an

educational worker for this task in selected secondary schools. This practice has continued to expand (Iraqi Ministry of Education 1986c).

In this chapter I described the main innovative projects in the Iraqi educational system. The description of some of the projects was thin (e.g., The Rotating Student, The Headteacher Project) owing to lack of detailed information in the available documents. However, such a description appears to be necessary because these projects will be referred to in the next two chapters.

Apart from the undeniable merits of certain practices, many of these projects, generally speaking, suffer from conceptual, organizational, structural, financial, and logistical problems in different combinations and varying degrees.

In the next two chapters, I shall attempt to analyze two kinds of data (i.e., interviews and documents) with regard to the issue of time underestimation in planning for and implementing educational innovative projects.

CHAPTER FIVE

DATA ANALYSIS - INTERVIEWS

In this chapter, I shall attempt to analyze the data collected by means of interviews. The analysis will make use of two perspectives. The first, and the main one, is to analyze the data by examining different responses of different people to the same question. The second one is to study responses in relation to certain projects since some of these responses are only comprehensible in that way.

The responses are grouped under four sub-headings: estimating time frames, planning, training, and evaluation. Each group is meant to widen the perspective of the central issue of time, and to see it from a different angle. A selection of responses in Arabic is given in Appendix III.

1. Estimating Time-Frames

Attempting to define the steps that are usually taken in calculating a time-frame for introducing an innovative project - which is certainly a question that can be answered by top planners only, or to a certain extent, by some researchers who frequently participate in working out the plan - the responses are not far from holding the same view. Deciding upon a time-frame for an innovative project seems to depend on assumptions, and judgement of a certain group of people or a certain figure. On the whole, and except in limited cases, judgements are personal rather then objective. In other words, judgements are not based on scientific calculations. A well informed planner who had participated directly or indirectly, in most major innovations had a concrete example:

> "Take the case of constructing the four comprehensive secondary schools. The Iraqi side in negotiation with the World Bank held the opinion that it is not difficult to get hold of pieces of land for the sites of the schools. But when it came to implementation, the Ministry of Education found it impossible to lay its hand on the chosen pieces of land. What was thought of as a vacant land and easy to get hold of turned out to be the property of some state establishments or institutions which had their plans to construct projects on them. Even the schools which many people in the Ministry of Education thought it would be easy to modify by acquiring adjoining buildings proved to be very difficult. Thus, the issue of providing the land to construct the schools on took more time than what the planners had thought of. This led top figures in the Ministry of Education to enter a labyrinth of making pressures and interventions to keep to the commitment with the World Bank. This also led to make compromises and to choose sites other than those which had been originally chosen."

The planner went on:

> "At that time - the mid 1970s - the country witnessed what could rightly be called an explosive development plan. Of the various sectors of economy, the construction sector was at the forefront of this

> development plan. With abundance in money due to increase of oil revenues after the sharp rise in oil prices, and shortages in skilled workers, the competition between state establishments for construction was at its highest degree. Not only there was nearly five-fold increase in the price of construction, but also there were inevitable delays. These conditions were beyond the predictive ability of the Ministry of Education." "All in all then," he added, "time calculations are based on assumptions which are divorced from reality."

In the same stream of thought but in more vivid words, another leading planner, taking also the Comprehensive Secondary Schools project as an example, maintained that:

> "Time estimation is subject to personal experience, zeal for the project which means reducing time in order to see quick results, and individual judgement unsupported by clear logic. Hence the process of estimating time seems to proceed haphazardly or arbitrarily."

Another respondent who is a noted researcher, and one of the few who combines theoretical knowledge, technical skills, and interest in the field of educational change stated that:

> "Innovative projects can be divided into two categories. The first category comprises projects that came to existence as a result of international agreements such as the Pilot Experimental Project in an Integrated Approach to Education for Rural Development (PEPIAERD). These have time-frames calculated by experts. The second category, which comprises most projects, has loose time-frames. These projects usually have unbounded, undefined, or unlimited time-frames. The Unified Secondary School project for example has its roots in the 1970s. Still, this project has not departed from the study phase. But even when the project is under international agreement which is legally binding, there can be delays. In general, there have always been delays in implementing projects. Adherence to strict time-schedules is rather absent. We usually have phases with no time-frames."

Another respondent who has greatly influenced research activity in the Ministry of Education emphasized that:

> "Calculations of time are always based on assumptions. Feasibility studies are rare, and even if there are such studies, these are not precisely calculated. Educational planners lack the comprehensive planning vision. They hold an optimistic view about the capacity of the system. There is often a lack of understanding the reality. Hence, there is a need for striking a balance between the ideal and the reality."

This last view, however, was challenged by the first quoted planner. He was asked whether the problem lies in planning and answered that:

> "The situation is similar to a relay race. The first member of the team runs his course to hand the stick to the second runner who in turn covers part of the distance and so on. The planning unit in an institution is the first runner but it cannot be a substitute for other runners. Otherwise the planning unit falls out of exhaustion before the end of the race. This often happens. And this means that other units do not perform their tasks or play their roles adequately. The planning unit opens windows on new grounds, and acts as a pioneer. This is how the work of planning should be seen."

But if this is true, it is equally true that the planning unit should know the limitations of other units, and should not engage in undertakings beyond their reach.

Another respondent appeared to hold a different view from the quotations cited above. In rather carefully chosen words and reserved manner, he emphasized that some innovative projects have no time-frames because they are still in the experimentation stage. But aside from the time-frame for the whole project or experiment, what about time estimation for different components of the project (e.g. curricula, training

of teachers and administrators, etc.)? Taking the Teaching of Foreign Languages Project as an example, this respondent asserted that "the duration of training courses was specified by specialists in accordance with the content of the course, and the requirements of the role to be played by the teacher." However, he contended that "time estimation cannot be calculated 100% in a precise manner."

But if estimation of time for introducing new projects seems to be imprecise or absent, as well as difficult to calculate, it appears to be less difficult in introducing a new textbook. The introduction of a new English textbook based on a new approach can serve as an example. The leading figure behind introducing the new series of English textbooks in Iraqi schools maintained that the team of language specialists working on the project went about time estimation in the following way:

> "The basic idea was that textbooks should be experimental in nature. We divided each book into lessons or units. And since a school lesson normally lasts 45 minutes, and since there are usually 30 weeks in the academic year, and there are normally four lessons per week, therefore there are usually 120 lessons per year. Upon this information the time needed for covering the activities of the textbook was calculated. But after experimentation, it was found that the time needed to cover all the activities properly was not enough. Thus, activities were reduced and some units were reduced as well in the next edition."

Though the estimation of the hours of study was straightforward, the time needed to cover the units of the new textbook by both the teachers and the students was underestimated, let alone differences between teachers as regards their ability to handle the new textbooks.

As for the Computer Project which was at the preparation stage when these interviews were conducted, the respondent who was actively participating in the committee responsible for preparing the requirements pointed out that:

> "The project was thought of as needing 5-7 years in order to be diffused to all upper secondary schools in the country. This time estimation was reached by making assumptions and judgements based on preliminary reports, and in the light of evaluating the existing conditions and potentialities of the system."

Asking whether there usually are other types of calculations with regard to time such as time-manpower, the responses show that time-manpower is calculated but in most cases such calculations are crude and imprecise. One of the top planners put it this way:

> "The issue of manpower embraces defining the required number of people to implement a project, and the process of preparing and training them. In fact, the requirement of a school is easy to calculate because there are common standard ratios. For instance, there should be one deputy head teacher for every 200 students. But innovative projects are different. The process of calculating the required manpower for such projects is not straightforward especially when we relate it to time. At any rate, it is not essentially an issue of quantity as much as it is of quality. But in spite of knowing this, we choose the personnel of new projects from the system itself."

And he added:

> "While there is a fast movement in one component, there can be a slow movement in another one. Take for example the estimates of The Computer Project. The required teachers for implementing the project were chosen and trained in specialized courses. But a period of more than a year passed and the project has not started. Here we find an overestimation of time which amounts to nearly the same effects of underestimation."

Another respondent indicated that "the process of selecting the required and suitable personnel - in the real sense - is missing." and he added that:

> "In time-manpower calculations, the quality of personnel equals if not surmounts the importance of the quantity. An ideal situation would resemble a network of tasks with well defined time schedule and performance measurement. If this cannot be realized, the concept of time-manpower is emptied of its meaning."

Emphasis on quality was also at the core of another response. The respondent maintained that:

> "There is a strong relationship between the number of people required to perform a certain task and their suitability to do so. Two qualified people can substitute ten unqualified ones. Yet in most innovative projects, the provision of suitable cadres required to perform the new tasks is a weak point. People often do not relate manpower to time because such a relation can disclose weakness and failure."

As for introducing the new English textbook in Iraqi schools, the respondent asserted that there were time-manpower calculations. But due to quantitative pressure (i.e., the numbers of teachers needing training) the qualitative dimension of teachers' training was weak. This was particularly true as regards the teachers of provinces.

Hence time-manpower estimations are - in general - weak and of low quality. They largely depend on the personal experience and on the judgement of those responsible for making them.

Attempting to know how often key figures in the Ministry of Education encounter underestimation of time in introducing

innovative projects, responses, on the whole, assert that underestimation of time is evident in most projects. One respondent maintained that "almost all projects undergo some sort of underestimation of time." And he added that "the system is unusually slow." Another respondent emphasized underestimation of time in the implementation phase of projects "due to absence of a sound preparation phase." Thus "there is a state of severance or break off between phases which ideally should have a state of continuation and connection."

Even in a project that was not so complicated and where the time-frame and time-manpower were not inadequately calculated, there were instances of underestimation. As the respondent put it:

> "In introducing the new English textbook, there was underestimation in crash courses for provincial teachers. However, there was no alternative but to train huge numbers of teachers. While it was a proper estimation of time for ordinary teachers with minimum pressures, it was improper estimation for the teachers from the provinces. The duration of the courses was too short to provide adequate training."

And the same story seems to be repeated in the Computer Project which in early 1988 was still in the planning stage. The respondent who took the project as an example pointed out:

> "Time appears to be underestimated especially for preparing the needed software which requires specialists to do the job. The method of presentation in software is so important and should meet the educational needs of the system as well as the personal needs of the student. These specifications cannot be easily realized. They need time. Yet this issue has not been fully addressed."

But is it possible to indicate a percentage for underestimation of time in planning and implementing innovative projects? As I expected, this question was met with reservation because it carries a value judgement, which, in any case, cannot be accurate, especially when taking into consideration different projects that have different characteristics. This question, however, is meant to point at rather than to quantify the issue.

According to a knowledgeable researcher who has devoted much of his work to studying educational innovations "projects can fall into one of two categories. The first, and by far the largest one, have unbounded phases or no time frames. The second category which includes projects such as PEPIAERD, and which have time estimates suffer from around at least 25-40% underestimation."

As for the Computer Project, which was still at the planning stage, the respondent felt that "the project may experience some 50% underestimation in providing the software in time." And though one of the respondents thought that "time underestimation ranges from 20% to 100%", other respondents, however, were in agreement to put the percentage at around 50%.

Thus, in general, responses on this complicated issue of indicating a percentage for time underestimation in planning and implementing innovative projects reach up to 50%. This means that the projects have experienced a need for half as much more time as that initially thought of or practically provided.

Attempting to find out what causes are there behind underestimation of time, responses cast different shades of light from different angles on the question. A planner holding top office and relying on long experience contended that:

> "One of the important causes behind time underestimation is lack of dependable criteria for estimating costs of projects. However, if the estimation of costs is high, top decision makers will find the project too expensive and perhaps will veto it. On the other hand, if the estimation is low, this will make it difficult for implementors to carry out the project in a proper way. It is perhaps the absence of a market economy or a systematic market which lies behind such state of affairs."

This means that the unpredictability or absence of market forces makes it very difficult for planners to conduct accurate estimates, and for decision makers to assess risks. Inevitably, there will be cuts in the cost of time alongside other cuts in an attempt to reduce the total cost of the innovative project.

Another respondent assigns importance to administrative resistance due to weak base of knowledge, and imposition of the innovation from the top. He maintained that:

> "The department which was administratively responsible for the Comprehensive Secondary Schools project, for example, had no clear idea of what it was all about. This misconception even extended to the head of the department at that time. Therefore, administratively the schools were not treated differently from other existing schools. The situation resembled the Chinese shoe: a new material in an old mould. The result was deformity. In addition to that, this project like most other projects did not emerge or originate from within the department that became responsible for its implementation, supervision, and follow up. That important feeling of ownership was absent. This is why the instances of administrative resistance were not few. And this is why there were delays in most of the parts of the project".

External variables and internal components of a project appear to be the centre of concern of another respondent. He asserted that:

> "What suits a particular society might not suit another one. An important condition for success of a project is whether it meets the needs of both the educational system and society. Yet this condition has not been properly addressed. This is mainly due to inadequate situational analysis prior to introducing an innovative project. The result is that all estimates including time estimates are more prone to be miscalculated."

As for introducing the new English textbook project, the "time pressure" was a significant factor behind underestimation of time required for training of teachers. Owing to the huge quantitative pressures coupled with short time, the implementors resorted to make do with what was at their disposal. "Otherwise", the leading advocate and planner of the project maintained, "many teachers would have left out untrained".

Another respondent lays emphasis on defectiveness and imbalance in the common style of carrying out tasks. Basing his response on an experience in the field of educational information, he asserted that:

> "Objectives, in general, are not tied with a well defined and an agreed upon time. There is lack of a work mode that begins with an objective and ends with an evaluation at a detailed level, and at the same time governed by a defined time. There is what can be called a state of disconnection between units within the Ministry. Each unit works alone and clashes with others. The result, inevitably, is thwarted efforts and wasted time."

Another respondent attributes underestimation of time to lack of experienced personnel, and absence of an integrated or a comprehensive vision. He feels that such a vision can be thought of as having an inbuilt capacity to view the wholeness of the picture not only its fragmented parts.

The main reason behind time underestimation according to a leading educationist, who in addition to a long teaching career at the university level, has participated in many educational activities conducted by the Ministry of Education, is a psychological one. He thought that:

> The root of the problem lies in lack of interest and motivation on the part of those who plan and implement a project. This lack of interest can be attributed to the methods of selection to higher education to begin with, the modes of recruiting people for jobs, the modes of assigning people tasks and responsibilities, and the ways these people handle their tasks when they hold certain posts. Take for example a closer look at a large number of committees usually set to prepare for introducing an innovative project: heterogenous members poorly equipped and/or empowered to carry out a task which has no distinct boundaries. Often, the work is seen as a heavy responsibility to be completed at any rate rather than a source of interest and enrichment. In such a case, time is ill-considered during meetings and in dealings, and we cannot assume that this may not be extended to the treatment of the innovative project itself."

Another respondent focuses on the difficulties the planner usually encounters in estimating the time needed to implement innovative activities. He stated that:

> "Ideally, it is assumed that the planner, the technician, and the administrator can work in harmony with each other to cover the parts of project. But while the complexity of the process of change increases in the phase of implementation, the implementer usually has limited capabilities. The planner knows beforehand that it is too difficult to implement an innovative project according to a time

> schedule. This is why there frequently are no distinct phases tied to a time-frame. And this is why instances of time miscalculations occur. In addition to that, and perhaps because of it, fear of accountability can be noted. Individuals, and departments alike, would not accept to be held responsible for failure and low quality results in a system which leans towards reward and punishment."

Prevalence of a top-down model in attempting to introduce an innovation coupled with the current economic situation of the country due to the state of war were the main two reasons behind underestimation of time according to the respondent who took the Computer Project as an example. He pointed out that:

> "Higher top decision-makers are keen to see the project on the move, and to see tangible results. Therefore a time-frame was already set for the project to reach the stage of dissemination in all upper secondary schools. On the other hand, the war has affected spending priorities. If we had abundant money, we would get outside assistance, and there would be no delays."

The respondent also felt that expositions, by some committee members who attempt to introduce an innovation, tend either to exaggerate or play down the issues under investigation. He stated that "such bidding practice negatively affects time estimation".

In fact such behaviour can be noticed in dealings between committee members. They act as bidders in an auction. In an auction, the price of an item is often either higher or lower than its actual price. In our case, time as a factor among others, is either underestimated or overestimated for various reasons the least of which is logical calculation. Hence, there is what we may call "the bidding phenomenon" where people contest each other to make a higher or lower bid. Often, the

reasons behind bidding are personal, such as self-interest or advantage rather than objective. And often, this practice disguises under justifications which seem sound at its face value.

The main reasons behind underestimation of time cited by the respondents, then, are the following:

- inadequate and weak situational analysis prior to introducing an innovative project.
- lack of coordination pertaining to work modes which creates a "state of disconnection" at both the individual and the collective level.
- lack of interest or poor motivation which is largely due to inappropriate modes and manners of selection for higher education, of recruiting for jobs, and of assigning tasks to people.
- predominance of a top-down change model the outcome of which is the absence of the feeling of ownership.
- lack of skilled, experienced, and well trained personnel.
- lack of clear cut objectives and distinct boundaries of innovative projects.
- lack of dependable criteria for estimating cost of projects due to unpredictability of market forces. The dilemma of striking a balance between low estimates which hinder proper implementation and high estimates which make them unpopular with the decision makers.
- fear of accountability on the part of both planners and implementing bodies.

- financial considerations due to the economic situation of the country which has been affected by the war.

The first seven reasons recur more than others. The last reason however was only mentioned by one respondent in connection with the Computer Project which was still at the planning stage at the time of conducting these interviews. Nearly all the projects were introduced either before or during the first years of the war, when its economic effects were still not apparent.

2. Planning

Asking how long does it normally take to consider a new idea or a programme before introducing it into the system, responses seem to be consistent that the process takes no less than a minimum period of two years. One respondent contended that:

> "Some projects can take a longer time in order to be introduced. PEPIAERD, for example took around eight years, the Comprehensive Secondary Schools project nearly nine years, the Pre-vocational Education Project around eight years and so on."

This response appears also to be in line with a response taking the Computer Project as an example. The respondent asserted that:

> "The idea of introducing computers in schools goes back to more than ten years. But the experiment was not laid on sound foundations and was limited in nature. Thus there was a second beginning in 1986. Now we are in early 1988 preparing the requirements to make a fresh start in 1989."

And he added that:

> "Although neighbouring Arab countries such as Saudi Arabia, Kuwait, and Jordan began their experimentation with introducing computer projects

> in schools a long time after us, they either have reached the stage of diffusion or will reach it next year."

Responses on how long does it take to draw up or draft a plan for an innovative project seem to be consistent. The respondents agree that in any case the draft plan never takes less than six months. However, the plan takes a year or two, or sometimes more.

How many persons, on average, participate in drawing up the plan for an innovative project? Responses on this question also appear to be consistent. Planners agree that around 4-5 people usually draw up the plan. One respondent pointed out that:

> "It is true that committees which are formed to draw up the plan consist of planners, a representative from the beneficiary institution and a related field worker, but it is equally true that planners have decisive influence on the process of decision making, because they have more knowledge about the project under investigation, they are more eloquent, and they have the expertise. Therefore, in a sense innovations are imposed on institutions by the planning department."

Another respondent agreed that drawing up a plan for an innovative project is an activity confined to a limited circle of people, namely, top planners. He asserted that: "field workers rarely participate in the higher planning circle of the Ministry."

Do plans proceed as they originally conceived? Two planners answered with "No". Another respondent puts it differently but, in the final analysis, it amounts to the same thing. He pointed out that "there can be modifications of the course of the plan in accordance with arising needs." And taking the Computer Project as an example, he stated "No" and explained that:

> "There are two main reasons behind saying no. Firstly, the duration of training for teachers is not enough because they are originally specialized in Mathematics not in computer science. Secondly, the ability to prepare and develop the software is limited due to depending on local expertise. Expertise in this newly introduced field needs a long time."

Do planners and policy makers attempt to modify the original plan of introducing an innovation once faced with time pressures? Responses appear, in general, to indicate that plans are not rigid and they usually have room for modifications. One top planner agreed that the original plan can be modified and added that "there can always be an attempt to combine various elements and to make certain compromises and concessions for the sake of realizing corrections." Another top planner affirmed "Yes, and this is sometimes done by force." And he added that, "there is a need for some sort of force whether through reasoning and convincing, or through administrative pressure." Another respondent maintained that "modifications are usually carried out when there are bottlenecks." Relating his answer to time, another respondent pointed out that "plans are not bound by time, thus they are

flexible and can be modified or changed." As for the Computer Project, the respondent stated that "there will be modifications in the details of the plan immediately after the first year of application in schools in order to contain the effects of negative elements."

Which component of the innovation then will be affected by modifications? Will it be the aims and objectives or structure or money allocations or training programmes or other components? Responses vary which, in a sense, reflect thinking in terms of a particular project on the part of each respondent. One respondent asserted that:

> "All components of an innovative programme may be re-examined or revised with a view of improvement in time and particularly under time pressures."

And he qualified his statement by saying that:

> "Aims and objectives do not, generally speaking, change but are certainly reduced due to time pressures as well as other pressures. For instance experimentation may be reduced to half the number of schools in the original plan."

Another respondent agreed that the components of a project may be modified but he maintained that:

> "Such a process would start with methods of carrying out tasks since these have less effect on the original plan. Then, if this does not work, modification can be extended to content, and it may even reach objectives."

Another respondent emphasized "training of personnel" as the component to undergo modifications in the first place. As for the project of introducing a new English textbook, the leading figure behind that project maintained that "the content is the

first component to undergo modifications under time pressures." According to his judgement "it is extremely difficult to anticipate all conditions of teaching." But a distinct line of responses appear to emphasize "financing" as the major component to undergo modifications under time pressures. This is well brought out by the respondent taking the Computer Project as an example. He anticipated that "financing and training of personnel would certainly undergo modifications if the need arises under time pressures." And he added that "it all ends or comes to the point of whether there is sufficient money. So it is financing which counts at the end."

Attempting to know whether these modifications follow a common pattern - which is another way of examining the previous question - respondents seem to agree that there is no common pattern followed. One respondent asserted that "carrying out modifications is subject to availability of resources whether human or material and cannot be grouped under a certain pattern." Most of the respondents maintain that the modifications usually correspond to the characteristics of each innovative project. But while these responses reflect the situation in existing projects, history seems to repeat itself in the Computer Project. The respondent who took it as an example indicated that:

> "There appears to be no far sighted planning. Indeed there is some sort of anticipation or consideration, but this is not based on scientific calculations of all the variables at work. For instance, we exerted much effort, money, and time in training teachers only to discover later that some of them were not interested or unwilling to teach computer lessons or activities."

Turning to an issue closely related to planning for innovative projects, I inquired how long does it take to put a contingency plan into practice. All respondents agreed that drawing up a plan is not usually coupled with planning for contingencies. One planner asserted that "for the planner, there is a great difference between giving the impression that the plan can stumble, and confronting problems in real situations, and doing something about them." Another planner put it differently:

> "Introducing an innovative project is not a military battle. We assume success and good will. Otherwise top decision makers would not approve of a plan which anticipates possible set backs at certain points. How can you convince them if you present them with an alternative? Decision makers may rightly argue: why not incorporate solutions for anticipated problems in the original plan?"

As for the Computer Project, the respondent also maintained that "disregard of the contingency plan seems to be the usual pattern of work. But of course there will be modifications on the plan when necessary."

On asking how often have the respondents - and many of them play pivotal roles in the Ministry of Education - found themselves at variance with their immediate superiors about time-frame or time-manpower estimations, responses vary in accordance with the position held by the respondent. One of the top planners claimed that:

> "I was at variance with superiors because of the nature of some innovative projects and its relevance to the needs of the society. For example, PEPIAERD was a pitfall since the beginning. The project was suitable, and certainly meant for countries less

> developed than Iraq. Social and economic development of the area, where the project was introduced, was faster than what the programmes of the project intended to yield. Thus, it failed to be in harmony with or to cope with the process of development which was evident in the villages. It would perhaps be more relevant to societal conditions, if it had been introduced ten years earlier."

He added that:

> "UNESCO advocates and supports certain programmes due to a number of influences, not the least of which are political influences. The Iraqi Ministry of Education asked for this project in 1969. Yet it took nearly ten years to introduce the project. And a decade is not a short period of time."

Though this response shows a difference of opinion between the planner and some people in key positions, the major issue here seems to be "timing" rather than "time". Another planner views the issue in a different light. He asserted that "I have been mainly at variance on the issue of time with the people responsible for implementing innovative projects not with my superiors." Thus, this respondent shifts the responsibility from planners to implementers. According to another respondent who was behind introducing the new series of English textbooks "there was disagreement with superiors. The decision to introduce the new series took a long time." Another respondent seems to emphasize the responsibility of all participants. He felt that "in most cases disagreement or disharmony is with what happens in reality not with superiors." As for the Computer Project, the respondent draws a sharp picture for the process of agreement or disagreement with superiors and colleagues:

> "Disagreement with superiors is subject to a number of considerations. Some disagreements can be mentioned, others cannot. Attempting to develop a local model of a table for the student to sit at when using a computer is a case in point. As a

> specialist, one may point out that it needs some modifications to be more efficient. The committee responsible for the project, which is headed by the undersecretary of the Ministry, usually listens to suggestions, and agrees on making the modifications. But not all the suggested modifications will be realized. And since one can not keep on insisting on his opinion, he may end by accepting the reality which is not in harmony with what he holds. Acceptance of the reality seems to be out of regard of the feelings of the committee's members. Therefore, when a decision is taken, this does not mean that there are no hidden disagreements. In addition to that, some members of committees who have links to and/or interest in the project would take any disagreement as something personal directed at them. Besides, within committees disagreement can be labelled with different names. For instance, insistence on perfection can be interpreted as pedantry. Hence disagreement can lead to problems. There is also some sort of hidden compulsion or coercion, not to disagree beyond a certain point. This can be partly explained by "office relations" which are so significant to each official in carrying out his daily tasks within an institution."

This statement discloses that disagreement with either the superiors or the colleagues is closely related to what might be called "the ethics of committees". And the issue is not disagreement with superiors as much it is an established way of working out a decision. But I may note that the previous account is a rather simplified version of reality. The process of making a decision is much more complicated. It contains various elements and influences so fused that they present insuperable difficulty for direct explanation.

This brings us to another question on the grounds on which the final decision is made. A line of responses seems to emphasize personal calculations and guarded anticipation of bringing into being concrete evidence of success or failure.

According to these responses, right calculations or miscalculations can be a decisive factor in collective and individual decisions. This implies that the fear of miscalculation is a crucial factor in making decisions or contributing suggestions which may lead to making decisions. There is also a significant political dimension in the process of making decisions. One respondent asserted that "innovations, especially those which imply considerable changes need political approval. This approval can provide the necessary support. Hence the final decision is resolved on political grounds." And the process of decision making within committees is illustrated by a respondent taking the Computer Project as an example. He maintained that:

> "There is no rule for the grounds on which the final decision about time is made. Any decision is usually taken in accordance with the subject matter. Sometimes there can be a vote especially when there are heated discussions and opposition. In such a case the majority counts. Sometimes the chairman of the committee would listen to various opinions, and infer a decision which represents a synthesis or a compromise of opinions. Decisions about time, then, are not taken singly by the chairman. But this is not to say that the process is completely democratic. Presentation of ideas and demonstration of examples can sometimes be an act of flattery or complaisance for a number of reasons. It can also be an act of considerations and personal calculations."

Attempting to delineate the steps that are normally taken in introducing an innovative project, the responses from key planners and researchers seem to emphasize similar points with different wording. One respondent maintained that:

> "It often begins with a recommendation from one of the educational conferences convened on a yearly

> basis. Then the Ministry of Education will seek advice of a top level Educational Bureau, outside the Ministry, which has the political power to make decisions. If the proposal appeals to that Bureau, it will ask the Ministry to fully examine the worthiness of the project. The Ministry forms a specialized committee to study various aspects of the project and sends it back to the Educational Bureau for final approval. After approval, usual steps such as preparing materials and equipment, training of personnel, experimentation etc. take its course."

Another respondent put it this way:

> "The world-wide outcry for reforming educational systems in the 1960's has greatly influenced the decisions to introduce innovative projects. This fashionable process has led us to search for and to diagnose problem areas within the system which resulted in making suggestions to introduce new ideas and projects. Thus ideas emerge from within the circles of the Ministry of Education. But in projects that entail structural changes or the cooperation of outside agencies and the like, the Ministry of Education seeks higher political approval."

And in the same vein, another respondent pointed out that the steps usually taken in introducing innovative projects run as follows:

> "Situations in schools are examined, and both Arab and international experiences are studied and analyzed. In the light of these considerations, the objectives and the structure of the project are delineated. This is followed by drawing up the project's programmes and activities, and defining its human and material requirements. The project then is implemented on experimental basis. And finally it is evaluated and followed up."

To conclude the issue of time at the planning phase of innovative projects, I asked whether there is a distinct consideration of time during the planning phase. Obviously, I concentrate on the planning phase because I assume that when time is underestimated at this phase, some sort of a chain

reaction will be created through all following phases. Most of the respondents, however, agreed that there is consideration of time, but they contended that time estimates are not accurate. One respondent asserted that "time is usually taken into consideration, but the basis on which its calculations made are weak." Another respondent also agreed that "time consideration is there, it is something always at the back of one's mind, but it is not calculated in a precise manner." Another respondent attempted to be more specific in saying that "we usually delineate the time required for experimentation, and this is basically what we concentrate on." But other respondents seem to be more affirmative. One respondent asserted that "there is a consideration for the time factor in planning for innovative projects. This is manifested in implementing projects according to defined phases with time-limit." And looking back at the planning phase of introducing the new series of English textbooks, the respondent recalled that "a distinct consideration of time was evident throughout the planning phase as well as subsequent phases." But against these responses there is an opposite assertion as regards the Computer Project. The respondent denied that there is a distinct consideration of time throughout the planning phase of the project, and simply responded "there isn't any".

Apart from the above information elicited from senior level management of the Ministry of Education, evidence drawn from people in the field lends little support to the idea that there is a distinct consideration of time before implementing a new programme. Discussing the merits and shortcomings of

The Rotating Student Project, the headteacher, the deputies and a group of teachers unanimously agreed that they had been given little time to consider the project and to adjust mentally to it. As one of the teachers put it "we do not deny the merits of the project, but neither the teachers nor the students were consulted before asking the school to make the required organizational changes in order to implement it." This leads us to posit that there appears to be an underestimation as regards the time needed for adequately considering the issue of teachers' awareness in the planning phase. And this can well be applicable to similar issues.

3. Training

Now I turn to another set of responses on the issue of training of personnel and its relation to time.

Asked whether the number of people who were thought of as being necessary to carry out the job in innovative projects match what happened in practice, respondents agree that there was a mismatch. One respondent, however, qualified his answer by saying:

> "It is a problem of quality rather than quantity. You assume that Mr. X can carry out the task properly, but later you discover his inability and his lack of awareness. There is a shortage of awareness rather than a shortage in numbers."

Attempting to know whether all the people who implement an innovative project participated in training courses, responses vary in accordance to particular projects. While the

teachers who were chosen to carry out the Computer Project were all trained, and the teachers who have carried out the Teaching of Foreign Languages Project were also all trained, this was not the case as regards PEPIAERD and the New English Course: not all the teachers were trained. One respondent, however, indicated that:

> "Training is loosely connected with the objectives of innovative projects in general. Besides, sometimes a planner or an administrator may be sent abroad for a training course or visit, while the teacher who implements the project is denied such an opportunity."

Trying to gather information on the duration of training courses, respondents agree that the duration is connected to the nature of each project. One respondent maintained that:

> "There are two types of training as regards the Computer Project. A four-month course for the teachers of the subject, and a six-month course for selected teachers in order to train their colleague teachers in the provinces, thus acting as leaders."

The respondent was aware of the shortcomings of the second type of training and contended that "there is no alternative." The same approach was followed earlier in introducing the New English Course. The man behind the project stated that:

> "There were three types of training courses. A six-month course for "trainer leaders" who are selected teachers of English language with a view to train their colleagues. A six-month course during evenings for teachers from Baghdad area. And 1-5 week courses during the summer vacation for teachers from the provinces."

But why six months? The respondent pointed out that:

> "Because of incentives. Administratively speaking, passing a six-month course would entitle the teacher to promotion. But also because of the feeling that this is the minimum required period."

And he added that:

> "There was an underestimation of time in crash courses for province teachers which range from 1 week to 5 weeks. But this was so because of the heavy load we were faced with: there were thousands of teachers who had no other alternative."

The dean of the Central Institute for Educational Training and Development added more shades to the picture of training for innovative projects. He stated that:

> "The duration of training is decided in the light of training needs, but training needs are not governed by the opinion of trainees. How are these training needs drawn? Firstly, changes in the curriculum. Secondly, collective opinion of teachers, headteachers, and supervisors. Thirdly, experiences of other countries and international trends in the field. Fourthly, the curricula of Teacher Training Institutes. And fifthly, the findings of evaluative reports on previous training programmes. Having said that, innovative projects do need more than usual training courses. But first, how is the duration of the course decided? Of course planners of innovative projects delineate or define an outline of needs which comprises the aim of the course, its nature, the professional level of trainees, whether a training or refreshing course is needed, and so on. The training unit in the Ministry of Education examines this draft and lays down the syllabus and types of training. Each subject or unit or item takes a certain time limit in the light of its objectives. Thus the overall time or duration of the course is decided. The training unit in the Ministry and the Institute itself see training as part of a continuous learning process. Therefore, training is not confined to one type only. We make use of different types of training within the prescribed programme in order to maximize utilization of time. For instance, we may shorten the course by taking out a week, and increase the materials which contribute to the trainee's self learning."

What are, then, the problems that affect the duration and timing of training courses? The respondent maintained that:

> "These are: adjusting courses to the load of teachers and especially in certain specialization, lacking of sound training in provinces, depending on lectures as the prime type of training, and lacking of appropriate pre-service preparation of teachers."

This view is challenged by a respondent who is specialized in training of primary teachers. He asserted that:

> "There is no delineation of time, in the real sense, in training courses. Courses are planned according to how much money is available. While we should seek to provide three basic elements in training: knowledge, skills, and quality, we would not economize on our budget if we lost these elements."

This statement seems to be consistent with another assertion made by a top figure in the supervisory section of the training unit that "financial considerations play a dominant role in planning training courses in general." However, on the same point pertaining to financial effects, the dean of the Central Institute for Educational Training and Development remarked that "we look at rationalization of expenditures as a better utilization of available resources through various modes of training within the framework of continuous learning."

Asking whether training courses are usually provided before introducing an innovative project or during its life, responses appear to be consistent. Respondents agree that courses are usually provided before introducing the project, but it can also be continued during its life emphasizing different aspects and/or arising needs. During the life of innovative projects, training courses are often refreshing in nature, or meant to acquaint the trainees with new trends and ideas in areas related to the project.

Did those who receive training feel that their preparation was sufficient? Responses reflect variation on the same theme: training, in general, was not adequate. As one respondent put it "there was a need for more training because courses do not usually cover everything the trainees seriously need in order to carry out their job properly." Taking PEPIAERD as an example, another respondent maintained that "there was a great need for more training. The implementers were lost. They felt tired and wanted to leave the project." But it seems that there is a difference between what the teachers feel towards training abroad and training locally in the country's institutions. Recalling training schemes of the Comprehensive Secondary Schools Project, one of the respondents asserted that:

> "Training abroad ran smoothly, while training in Iraqi training institutions was weak. No teacher came voluntarily for training in local institutions. Yet those same teachers made pressures to participate in training courses abroad. Thus, there was a need for more training if it was to be carried out abroad. It seems that the glamour of training abroad, not interest, created the desire for training."

And another respondent relate training to the issue of selection. Speaking about the Computer Project, he argued that:

> "The issue is a relative one. Training can be assumed to be adequate if the selection of trainees is sound. One of the vital basis of selection is interest in work. Yet the selection process of teachers to implement the project was carried out without paying much attention to this point."

4. **Evaluation**

The last set of questions is on evaluation of innovative projects.

Attempting to put evaluative activities in its organizational framework, I began by asking whether there is an independent unit in the Ministry of Education which is specialized in and responsible for evaluating new projects. Respondents agree that there is no such unit. "Evaluation studies", as one respondent asserted, "are usually conducted when top responsible people feel the need for them due to problems, bottlenecks or set backs." This statement appears to be consistent with a comment made by another respondent speaking about the Computer Project. The respondent pointed out that "there is no thinking of an evaluative plan yet. At the moment, the thinking is confined to visiting the schools where the project will be introduced, and having information about teacher's work and conditions of learning."

Are evaluation studies generally summative or formative in nature? The majority of responses agrees that evaluation studies, in general, are summative in nature. Two respondents, however, asserted that some projects have not been systematically evaluated. But why? One respondent put it this way: "some people in the Ministry of Education hold a view that seemingly successful projects are in no need of evaluation. Hence, the Centre for Teaching Aids, for example, has not been evaluated. In general, evaluation is not taken as an integral

part of an innovative project. And some projects were only evaluated after a long time of its initiation." The other respondent put it differently. He indicated that:

> "Evaluation should be related to the objectives of the project under investigation. And there are four dimensions to be considered: the environment, the input, the process, and the output. Our evaluation attempts do not move along these lines due to three main factors: the difficulty of this kind of studies, the lack of specialists who are capable of conducting such studies, and the length of time needed to manage and conduct such studies properly."

One of the respondents, however, felt that both summative and formative evaluation are complementary rather than different. He argued that:

> "Summative evaluation, at a certain point, can be considered a formative evaluation for the project as a whole. For example, there have been four evaluative studies for the Foreign Languages Project which are summative in nature because they deal with the performance of the project at certain points of time. At the same time, these studies have also contributed to solving some problems, and to the continuity of the project. Therefore, we can consider these studies as formative in nature as well."

Asking about the length of time usually taken to conduct an evaluation study, respondents agree that an average period of one year is typical. One respondent asserted that "it might take much less than a year under the pressure of time set by top responsible people". But how often does this happen? The respondent emphatically stated that "this happens most of the time. Recent studies have been mostly done under the pressure of time."

Turning to another angle, I asked whether researchers choose what they wish to investigate, or whether they are assigned a task to be done. Responses are consistent that researchers are usually assigned a task to be performed. One of the respondents added that "researchers, in general, do not accept the task whole-heartedly." But there are deviations from the main stream as regards the choice and conduct of research. As one respondent put it:

> "The Centre for Educational Research in the Ministry of Education prepares a list of titles pertaining to issues of immediate concern on a yearly basis. Researchers are asked to choose from the list, and to conduct research either individually or jointly in accordance to a time limit. And incentives are provided to encourage researchers to exert efforts in this direction. Besides, there has been a measure of coordination between the Ministry of Education and the departments of higher studies at the Universities to encourage research students to choose for the topics of their dissertations from those areas closely related to the concerns of the Ministry of Education. In addition to that there have also been instances of well-researched studies carried out in the Ministry and motivated solely by personal interest."

Attempting to find out whether researchers devote their time to one study only, or whether they carry out their research while performing other duties and routine work. Respondents are in full agreement that researchers, especially the most able and experienced ones, perform their research as part of their office work and administrative commitments. As one devoted researcher put it: "a few number of researchers are overloaded with tasks to be accomplished. They might even work on several studies simultaneously amid a disarray of office work as well as other commitments."

What is then the usual procedure of conducting an evaluation study? Responses on this question are also consistent. The procedure starts with forming a committee or a research team with a defined task and a time limit. Normally, such a committee consists of selected people from inside the Ministry of Education and from outside (e.g. University teachers). The committee defines the problem, delineates the objectives, and selects the method of research to be followed. Each member of the committee is assigned a defined task to be accomplished (e.g. a written section). Sections of the study can be worked out singly or jointly. These sections, are read, discussed, and modified. Then they are put together with an attempt to unify style and treatment.

And finally I attempted to discover whether there is a common methodological pattern usually followed in conducting evaluative studies. Responses on this question are - to a large extent -consistent. The common methodology in use is the quantitative approach. And though some good quality studies tend to be analytic field studies, some respondents hold negative views on them. One respondent maintained that "many studies are descriptive, lengthy, and indirect in attacking the problem."

But what does all this entail? The absence of an independent unit which is specialized in and responsible for evaluating innovative projects means that systematic and well-timed evaluation is absent. Not only this but accumulation of

experiences and build up of a proper base of knowledge in this field appears to be absent. This problem is augmented by lack of specialists in project's evaluation. And this is why researchers in different areas of specialization act as evaluators.

Dependence on summative evaluation means that corrective actions can be ill-timed and consequently ineffective.

Though some evaluation studies theoretically take what appears to be adequate time frame, this does not mean that the people who work on them have enough time. In general, pivotal researchers are over burdened and over stretched. Alongside routine office work and other commitments, they might even work on more than one study simultaneously. Hence most studies are constrained by time.

The procedures of conducting an evaluation study by setting a committee has not only led to ununified treatment of issues under investigation due to different skills and stances of writers, which needs an extra time to be put together, but also led to consuming more time in reaching consensus and finding the right time for all participants in order to hold constructive meetings. Further, lack of time greatly affects the quality of studies conducted by heterogeneous members of committees.

As for the methodological pattern, the long accustomed quantitative approach is prevalent. In general studies seek typical statistical interpretation of complex social phenomena. In any case, the qualitative approach needs more time which is

not available.

To conclude the sets of questions I attempt to elicit information about two specific issues: experimentation and "the mutation phenomenon". Asked how long does experimentation of new projects normally take, respondents agree that experimentation represents a nucleus to be transferred to other zones, and it is meant to be limited in nature. One respondent put it this way: "experimentation is considered a solution to the complication of the change process. In a sense it is a controlling factor, as well as a source of feedback." However, experimentation, especially with a new textbook, on a limited number of students is usually received with reluctance, unwillingness or refusal by some influential figures in the Ministry of Education on moral and educational grounds. Experimentation on all students in a particular grade for one academic year is preferred to limited experimentation. The leading figure behind introducing the New English Course maintained that "we asked for experimentation on a limited number of schools but the decision makers in the Ministry did not agree." In fact, this has not been the case in other projects. But diffusion of an innovation is conditioned by success and availability of both human and material resources. Hence, PEPIAERD for example has remained as an experiment, while the Pre-vocational Education Project has been extended. Experimentation appears, at least according to the view of one respondent, to be as a negative rather than a positive factor. He explained that:

> "Phases in a project are not distinct as they are in theory. Experimentation, thus, is not taken as it should be. However, if you were sure of the results, you would not make experimentation. And there is a world of difference between experimentation and implementation. Experimentation is there to liquidate the innovative project. Gradually, the project can become indistinct, and can be lost, particularly if experimentation takes a long time. Such was the case with PEPIAERD."

As for the duration of experimentation, respondents agree that it is usually one year for new curricula or textbooks, and more than that for other projects.

As regards "the mutation phenomenon", I enquired whether innovative project end in something different from what was originally thought of or intended. The overall responses show four categories of projects. The first have, to a large extent maintained their objectives, though not without difficulty at certain points, like the Pre-vocational Education Project and the Foreign Languages Project. The second had failed to achieve their objectives and ended by closing down like the Resident Supervisor Project. The third comprises projects which have failed to maintain their objectives and have undergone various changes, yet they have continued to exist, such as the Comprehensive Secondary Schools Project and PEPIAERD. And the fourth category had achieved it objectives, and ended because they were meant for a limited period of time and for a particular purpose such as The Accelerated Schools.

Summary

In the following pages the responses collected by means of interviews are summarized and an analysis of these responses is presented.

Innovative projects, in most cases, are loosely planned in terms of time frames. Calculation of time frames is not governed by well-defined steps. Nor is there strong evidence to support that delineated steps in estimating time frames in less complicated projects - such as the New English Course - can guarantee that the situation in the classroom proceeds as planned. And even in the projects where there are defined time-frames calculated by experts - such as PEPIAERD - neither the components of the project nor the external factors could be controlled to match these estimates. The process of estimating time-frames for innovative projects is subject to making assumptions based on personal rather than objective judgement. This can partly be explained by the absence of conditions which make an objective judgement more likely to occur. Adequate situational analysis prior to introducing an innovative project, for example, is one of these conditions.

Time-manpower calculation, in the sense of defining the required number of people to implement a project and the time they need to carry out the set task properly, is crude and imprecise. The problem appears to lie in the quality of the required people rather than their quantity. However, in the absence of quality, even quantity can be miscalculated. Further, relating manpower to time can disclose points of

weakness and early failure. This is perhaps why people often do not elaborate on the relationship between manpower and time prior to introducing an innovative programme. They largely depend on personal experience and judgement in making time-manpower estimates.

Underestimation of time appears to be evident in innovative projects. Almost all innovative projects undergo a state of underestimation of time in at least one or more of its components. In particular, this state is manifested in the implementation phase due partly to the weakness of the preparation phase. This is perhaps why even in projects which are less complicated such as The New English Course and where calculation of time can be a more straightforward process, the estimates are not precise.

Is it possible to indicate a percentage for underestimation of time in planning and implementing innovative projects? Bearing in mind the value judgement which responses may carry, time underestimation appears to reach, in general, up to 50%. This means that innovative projects have experienced a need for half as much more time as that initially thought of or practically provided. Crude as it may be, this percentage is an indicator which discloses a serious defect in planning for and carrying out innovative projects. However, this percentage is the outcome of value judgements of top management in the Ministry of Education based on their personal experience and capacity coupled with a role in the process of decision making about introducing new programmes into the system.

The major reasons behind underestimation of time which explicitly or implicitly recur more than others are the following:

- Incomplete and weak situational analysis prior to introducing an innovative project. Planners, in fact, neither have at their disposal adequate information based on both internal and external factors pertaining to innovative projects, nor reliable and comprehensive statistics to support information. This leads to absence of an integrated or a comprehensive vision which views the wholeness of a given situation rather than its fragmented parts. Apart from political, economic, social, and cultural considerations, a new textbook based on a new approach can be introduced, for example, without making arrangements to train all the teachers who are supposed to teach it, or providing the schools with the necessary materials which should accompany the book, and the like. Such fragmented vision affects the factors pertaining to success of innovative projects including the time factor.
- Lack of coordination pertaining to office work modes which create a "state of disconnection" at both the individual and the collective level. The common style of work is defective and imbalanced. In many cases each individual or unit works alone and clashes with others. In many cases the spirit of team work is lacking. Instead of continuity of practices and build up of experiences, there appears to be a state

of severance and break off. The outcome inevitably is thwarted or repeated efforts and wasted time.

- The psychological factor of lack of interest or poor motivation. This state can be traced back to the methods of selection for university education, and the modes of recruiting graduates for jobs. Later, it can be observed in the modes of assigning people tasks and responsibilities within an institution, and the ways these people deal with their tasks. In such a case, work is seen as a heavy assignment or burden to be finished rather than a source of interest and enrichment. Work stops giving that sense of satisfaction and fulfilment. But work is an essential part of life. And when work loses its meaning, life also loses a significant part of its meaning. And since both life and work are governed or conditioned by time, time in its turn loses meaning and value. Meaning is replaced by a state of alienation. And it makes no great difference to waste time or to neglect it.
- Predominance of a top-down change model the outcome of which is the absence of the feeling of ownership. Most of the innovative projects have not emerged or originated from within the organizational units which assigned the responsibility of implementing and supervising them. Projects come as unnatural growth: they do not belong to the units. Hence projects are met with indifference and subjected to existing bureaucratic procedures. Consequently delays and

time wasting are bound to happen or to appear.

- Lack of skilled or well trained personnel to carry out innovative programmes. The problem does not only lie in the methods of teaching and preparation at university level or Teacher Training Institutes, but also in staff development programmes for administrators and in-service training programmes for teachers. The problem is, in many cases, augmented by inadequate selection of people to play pivotal roles in innovative projects. In one sense, this means that the people who usually implement innovative projects are far from being efficient. And inefficient people cannot deal with or use time efficiently.
- Lack of clear cut objectives and distinct features of innovative projects. Objectives, in many cases, are neither stated clearly, not tied to a well defined time schedule. This leads to all sorts of misunderstandings, misinterpretations, and confusion. And partly because of this, original objectives can be changed, modified, neglected or abandoned. Further, innovative projects, except in a few projects such as PEPIAERD, are introduced with indistinct features. This is reflected in many official documents on innovative projects. Detailed delineation of the components of projects is lacking, and both direction and prospects are vaguely stated. Descriptive accounts are often confined to superficial information hiding behind flowery

language, and leaving most of the serious questions unaddressed.

Other reasons behind underestimation of time include:

- Lack of dependable criteria for estimating cost of innovative projects. Planners face a dilemma in their attempt to strike a balance between low estimates which hinder proper implementation, and high estimates which make them unplausible to decision makers. To a large extent, lack of such criteria can be attributed to absence of a systematic market economy. In other words, the unpredictability of market forces makes it very difficult for planners to manage accurate estimates, and for decision makers to take risks. Hence, planners attempt cuts in the cost of time alongside other cuts in order to reduce the total cost of the project as a precautionary measure.
- Fear of accountability on the part of both planners and implementing bodies. This is related in part to the previous reason. Individual and departments alike would not accept to be held responsible for failure and low quality results in a system which leans towards rewards and punishment. To avoid risks, planners prefer to err on the side of underestimation rather than overestimation of cost. But this reason is also related to the feeling of ownership. Departments would not accept to be taken responsible for failure of projects that are imposed

from outside and not originated from within. Hence there can be instances of obstructive procedures and hindering measures which may well affect time consideration.

- Financial considerations due to the economic situation of the country which has been affected by the war. However, nearly all the projects, except the Computer Project were introduced either before or during the first years of the war when its economic effects were still not apparent. But while there were no cuts in money allocations during the initiation and the first years of operation of most projects, this has not been the case since around the mid 1980s. In fact, at that time a new thinking based on economic considerations began to emerge and take shape. Later, this thinking has manifested in a policy which calls for efficient use of resources and making the ultimate use of time.

These reasons are not separate entities: they are interrelated. No one reason by itself is solely behind underestimation of time. Often a combination of reasons act together with varying degrees of intensity and concentration.

Turning to the issue of planning, the length of time from considering a new idea to introducing it into the system usually takes no less than a minimum period of two years. In many cases, however, projects may take longer time in order to be introduced. PEPIAERD, for example, took around eight years, and the Comprehensive Secondary Schools project took nearly

nine years to be introduced. But this does not mean that the longer time is utilized to the full in elaborating the idea, deepening its conceptual dimensions, considering its practical implications and setting the stage for introducing it. Rather, there are periods of stagnation or inactivity, and other periods of revival and quickening.

In any case, the draft plan for an innovative project never takes less than six months. But sometimes the plan takes a year or two, or even more.

Around 4-5 people on average actively participate in drawing up the plan for an innovative project. All important committees are headed by the undersecretary or the minister of education. Top planners usually play a pivotal role in the process of making decisions about introducing innovative projects into the system. This is largely due to the fact that they command more theoretical knowledge about innovations, they are more eloquent, and they have the expertise. In short, planning for innovative projects is an activity confined to a limited circle of people. But this is not to deny the role played by seminars and open forums which usually precede the final plan in shaping ideas and orientations.

Plans, however, do not proceed as they were originally conceived or wished to be. But plans for innovative projects are not rigid, and they usually have room for modifications. Put it differently, plans in many cases are not strictly bound by time, hence they are flexible, and can be modified or even changed. There can always be attempts to make new combinations

or certain compromises, or concessions for the sake of realizing corrections.

All the components of an innovative project may be revised or re-examined with a view to make improvements. This is particularly true under time pressures. The aims and objectives do not, in general, change, but they can be reduced or modified due to time pressures as well as other pressures. Financing and personnel appear to be the first two components to undergo modifications under time pressures. Further, the details of a project often undergo modifications. At any rate, it all comes to the point of availability of sufficient money allocations.

Modifications of the components of innovative projects do not usually follow a common pattern. Carrying out modifications is subject to availability of both human and material resources and cannot be grouped under a certain pattern. Modifications largely correspond to the characteristics of each innovative project.

Drawing up a plan for an innovative project is not usually coupled with devising a contingency plan. Top decision makers prefer to assume success. To them, it would be more normal and sound procedure to confront problems in real situations rather than to assume stumbling at the beginning. Besides, alternative solutions for anticipated obstacles, in the short term, can be incorporated in the original plan.

Planners often find themselves at variance both with their superiors and the implementors of innovations on the issue of

time. Disagreement with either the superiors or the colleagues is closely related to what might be called "the ethics of committees" and "office relations". Further, the issue is not disagreement with superiors as much as it is an established way of working out a decision.

But on what grounds the final decision is made? The fact is that the process of making a decision is a complicated one. It contains various elements and influences so fused that they present insuperable difficulty for direct explanation. However, there seems to be no one rule for the grounds on which the final decision is made. Objective considerations, personal estimates, and guarded anticipations of bringing into being concrete evidence of success or failure, appear to have a great influence on making a decision. In any case, the process of making a decision is influenced by a political dimension especially with regard to innovations which imply considerable changes.

The process of introducing innovations into the system has been under several influences and pressures. The most important of these are the resolutions and recommendations of international and regional educational organizations and agencies, and the worldwide outcry for reforming malfunctioning systems of education in the 1960s. This fashionable process has led to search for and to diagnose problem areas within the system, which resulted in making suggestions to introduce new ideas and programmes. Ideas mainly emerge from within the circles of the Ministry of Education. The Ministry, however, seeks higher political approval especially when projects

necessitate considerable changes or outside assistance. Within this context, specialized committees examine the potentialities of certain projects: their applicability as well as requirements. Then follows the phases of planning, provision of human and material requirements, experimentation, evaluation. Dissemination of innovations depends on their success.

There seems to be a consideration of time in the planning stage of innovative projects. But time estimates are not, in many cases, calculated in a precise manner. Apart from the information elicited from senior level management of the Ministry of Education, evidence drawn from people in the field has little to support that there is a distinct consideration of time before implementing a new programme. Therefore, there is a consideration of time but it is not distinct. However, with the consistent political concern with productivity and efficient use of resources, and due to economic effects of the war, consideration of time has apparently increased in planning for the provision of educational services.

As for the issue of training people to carry out innovative programmes, there seems to be a mismatch between the number of people who were thought of as being necessary to carry out innovative activities, and what happened in practice. But this is not a problem of quantity as much as it is a problem of quality. People of quality can offset shortages in numbers.

Training for the people who implement innovative projects may vary in accordance to the particularity of each project. While the teachers who have carried out the Teaching of Foreign Languages project, for example, were all trained, this was not the case in PEPIAERD. However, training, in many cases, is loosely connected with the objectives of projects.

The duration of training courses is connected to the nature of each project. But certain considerations may play an important role in deciding the duration such as personal judgement, professional incentives, time pressures, and certainly a measure of objective estimates. Further, it appears that financial considerations play an overriding role in planning and implementing training courses in general.

Training courses are usually provided before introducing an innovative project, and might be continued during its life emphasizing different aspects and/or needs. The latter are normally refreshing in nature, or meant to acquaint the trainees with new trends and ideas in the areas related to projects.

Training programmes, in general, appear to be less adequate than what planners and key figures wish them to be. Training courses do not usually cover everything the trainees seriously need. Also, the selection process of trainees is not laid on a sound bases.

As for evaluation, there is no independent unit in the Ministry of Education which is specialized in and responsible for evaluating new projects. In fact, the Directorate General

of Educational Planning, and recently the Centre for Educational Research have played, especially the former, a leading role in conducting evaluation studies on innovative projects. Absence of such a specialized unit indicates an unorganized, unsystematic and inevitably ill-timed evaluation activity. It also indicates the lack of accumulation of experiences and the built up of adequate knowledge base in the field of evaluation. Further, owing to absence of specialists in project's evaluation, researchers specialized in different areas of education assume the role of evaluators. But this does not mean that they have filled that role.

Evaluation studies are, in general, summative in nature. Some projects have not been evaluated. And evaluation studies of high quality are few due to the complexity of such studies, lack of specialists, and the length of time needed to conduct them properly. Heavy reliance on summative evaluation means delays in taking corrective actions.

The length of time to conduct an evaluation study may take a year on average. But it may take much less than that under the pressure of time. Most recent studies have been done under time pressure. But what seems to be a proper length of time to conduct a study conceals the fact that the people who work on it have not enough time due to the volume of assignments which they have to deal with. This is especially true for the most able researchers who play a pivotal role in conducting evaluation studies.

Researchers are usually assigned a task to be performed rather than left to choose what suit their interest. However, there are deviations from the mainstream with regard to the choice and conduct of studies. Researchers in the Ministry of Education can choose from a list of topics prepared by the Centre for Educational Research on a yearly basis. Further, there are also cases of fairly good studies and reports motivated solely by personal interest.

The normal procedure of conducting an evaluation study starts with forming a committee with a defined task and time limit. Such a committee includes researchers from inside and outside the Ministry of Education. Tasks are distributed among members according to a set plan and a defined methodology. Written sections are discussed, modified, and put together with an attempt to unify style and treatment. In many cases this procedure has led to ununified treatment of issues, and to consuming more time in reconciling different views, in finding the right time for meetings, and in piecing the segments of work together.

And in general there appears to be a prevailing methodological pattern in conducting evaluative studies. Studies rely heavily on the quantitative approach seeking typical statistical interpretation of complex social phenomena. This approach needs less time than a qualitative approach as regards the conduct of a study, but it also cannot account for multi-dimensional qualitative issues such as time.

Turning to the issue of experimentation, it is held that experimentation is meant to be limited in nature. However, experimentation with new curricula on all students in a particular grade for one academic year is preferred to limited experimentation. This is justified on moral as well as educational grounds. But this is not the case with all projects. PEPIAERD, for example, has remained as an experiment. This is why there is a line of thought which maintains that experimentation can negatively affect the newness of the project when it lasts for a long time: gradually the project may lose its distinct features, and dissolve into the existing system. Apart from this, dissemination of an innovation is conditioned by success and availability of both human and material resources. With regard to the duration of experimentation, it is usually one year for new curricula and textbooks, and more than that, and sometimes unlimited period, for other projects.

Is there evidence of what is called "the mutation phenomenon", or whether innovative projects end in something different from what was originally thought of or intended? There appear to be four categories of projects. The first have to a large extent, maintained their objectives. The second have failed to achieve their objectives and ended by closing down. The third category comprises projects which have failed to maintain its objectives, yet they have continued to exists. And the fourth have achieved it objectives and ended because they were meant for a certain purpose and a limited period of time. However, both the first and the third categories are common in the innovation scene.

CHAPTER SIX

DATA ANALYSIS - DOCUMENTS

In this chapter I shall attempt to analyze two types of documents. The first one comprises studies written on specific innovative projects. The second type includes studies or reports dealing with innovation in the framework of the educational system in Iraq. In certain cases, however, official documents may paint official pictures: bland and uncritical. I shall attempt - as far as possible - to select the documents that have more analytical power.

In analyzing the written and published documents I shall try to support part of the responses gathered by interviews - dealt with in the previous chapter - to cast more light on particular areas, and to consolidate the causes behind underestimation of time - the central theme of this study - in the process of introducing educational innovations. In focusing on underestimation of time, this chapter will only deal with significant constraints and problems that face innovative projects. An account of these projects was given in chapter four.

1. The Pilot Experimental Project in an Integrated Approach to Education for Rural Development (PEPIAERD)

This pilot project, unlike the majority of innovative projects, has been evaluated by many people - Iraqis and non-Iraqis - and at different points of time during its lifespan. Studies and periodic reports differ in depth and treatment. To the extent that particular studies have critical elements and analytic power, they represent a departure from accustomed patterns.

The Basic Document of the pilot project which was signed by the Iraqi government, UNDP and UNESCO in October 1976 dealt with carrying out activities in terms of months: for example, from June 1977 to June 1978 for facilities, directing, and training of personnel; from January 1978 to August 1978 for completing buildings; from July 1978 to August 1979 for establishing a second nucleus, and so on. Other activities, however, had loose time-frames. For example, from September 1979 to 1981 for extending the project to cover more schools and more people; from June 1980 to 1981 for selecting another area for the project; and 1981 for conducting summative evaluation (PEPIAERD 1976:9-11). These activities came under two phases: the first one from July 1977 to January 1978, and the second phase from July 1978 to June 1980 (pp.20-21).

But on what grounds were these time frames calculated? The document did not explain on which bases these time frames were calculated. Since the document was the product of a joint

effort between UNESCO experts and Iraqi planners, and since there were three similar projects introduced with UNESCO assistance in Pakistan, Uganda and Peru, I may assume that time-frame calculations were based on personal experience and judgement. But conditions differ among countries and even within parts of one country. Thus, the document stated that "there will be room for some flexibility in the work plan in accordance with existing conditions" (p.20).

If we consider that starting an activity could be at any point from the beginning of a month till its end, and that this applies for the month when the activity starts as well as the month when it ends, this means that there is a period of nearly two months which cannot be accounted for and which is invisible in the timetable. Besides, this creates a chain reaction which affects any subsequent activity. Had the planners defined a fixed date for commencing and ending an activity, and a defined time frame for anticipated delays, postponements on top of that would have been looked upon differently.

As for time-manpower, the document stipulated that there was a need for employing one expert and nine consultants in various educational fields. The numbers of Iraqi personnel were also defined (pp.30-31). It seems, however, that these calculations were necessary not for time-manpower as much as for estimating cost based on the UNESCO unit cost of man/month estimates. But there was no indication of the basis on which the need for Iraqi personnel were calculated in the documents.

The document did not explain on what grounds the duration of training courses were decided (p.20). And though evaluation was left to be decided at a later stage by concerned parties, the approximate dates of progress reports and reviews were defined (pp.28-29).

Early in 1978, around one year after starting the project, Cutting - a UNESCO consultant - visited the project and wrote a short report (Cutting 1978). Though the report was meant to outline the procedures of conducting an evaluation programme, it touched upon certain shortcomings amongst which: lack of situational analysis, unfilled posts, inappropriate teaching methods, lack of teaching aids, slow progress of the project, inoperative local committee, and dysfunctional administrative procedures. The report showed that the nucleus of the project (i.e., three schools) was considered small and could not provide a comprehensive picture for a sound evaluation. The report concluded that in comparison with similar projects elsewhere, and due to high modes of development in social and economic sectors in Iraq which were manifested in compulsory education and adult education centres, coupled with rising standards of living, many problems of school leavers will fade away in the primary stage and may not appear until reaching the secondary stage.

Time was not directly addressed in that report as a main issue, nor was it paid due consideration. The consultant, however, maintained that the progress of the project was slow. This means that time frames for carrying out activities were

not calculated correctly taking all, or at least most, influential forces into consideration. He also felt that the director of the project and his deputy should devote more time to work in the site for they lived some fifty kilometres away. Needless to say that effective management of an innovative project can negatively be affected by wasting time in daily exhausting transportation.

Late in 1982 two important documents appeared. The first one was an evaluation report conducted by a tripartite committee comprised of representatives from the Iraqi Ministry of Education, UNESCO and UNDP (PEPIAERD 1982). Summarizing information gathered by means of conducting interviews and discussions, reviewing documents written on the project, and visiting the site of the project, the committee stressed at the outset that

> "innovative approaches, especially those related to rural development, are often controversial, and need time to be accepted by people. The pilot project is not an exception: it needs a long time to be accepted. However, during the lifespan of the project, rapid socio-economic transformations and changes have been carried out in the country. Hence, it appears that the objectives of the project fall well behind what actually happens in the country." (p.48)

The committee indicated two reasons for slowness suffered by the project: unclear strategy, and vague description of tasks and roles of implementers. The committee found that self-confidence and skills at work were absent on the part of implementers and local committee members. And it also found that training was not adequately provided and that absence of

evaluation had led to absence of necessary modifications. Hence, the committee concluded that success lies in: ensuring consensus on objectives and strategy, defining tasks and roles clearly, providing continuous training, conducting periodic evaluation, and marshalling support and participation of other relevant sectors of society (pp.48-49).

Underestimation of time appears to be an implicit factor behind many problems which affected the project. Consultants did not arrive according to the timetable, training opportunities abroad were lost due to slow administrative procedures of the Ministry of Education and bureaucratic arrangements of UNESCO, duration of training courses for implementers were not enough to equip them with the required skills and knowledge, and implementers were not given ample time to assimilate new ideas and to be clear about the objectives and strategy. The Committee, in fact, admitted that the progress of the project was slow. This means that progress fell behind the predictions of planners. And it certainly means that calculations of time were erroneous.

The second important document was written by N. Jain, the UNESCO general adviser (Jain 1982). In fact, this adviser spent a long time with the project, and came to know it fairly well. According to him, some of the impeding factors were the following:

1. lack of communication between the project's managerial and operational staff and the decision makers for the project

which led to confusion about the aims of the project.

2. The project's supervisory committee worked under time pressures and was not suitable for such a function.
3. There was no general coordinator/adviser for the project till early 1981. As for consultants, out of 102 man/months to be provided over 3 1/4 years (1978-1981), only 52 man/months were provided over a period of 4 1/4 years. Reasons were many but it was mainly due to paucity of funds.
4 No evaluation was carried out to assess the situation or the progress of the project.
5. National staff were not given any incentives for doing extra work beyond office hours.
6. Secretarial assistance was almost absent. Valuable time was spent in routine work such as typing (pp.32-33).

Jain also paid attention to the fact that both the director of the project and his deputy live far from the site, and had to travel some one hundred kilometres daily. He stated that "distance management is still a big task in the project." (p.35) As for training, Jain maintained that coordination, planning techniques, and methods of working with people, in particular, were three areas which needed intensive training to be mastered by the staff of the project (p.37). He also emphasized the importance of evaluation and contended that his report together with the report mentioned previously "are no substitute for a detailed evaluation." (p.37) Jain asserted that the potential and promise of such projects are great for the country and region. And he concluded that "the

difficulties are not insurmountable." (p.40)

It seems that underestimation of time is at the heart of most - if not all - the problems suffered by the project. Lack of communication between different actors needs time to be ironed out, the project's supervisory committee had no time to carry out its tasks, only half the number of the required consultants were provided and yet over a much longer period of time, evaluation was not carried out in due time, the staff had to work beyond office hours which means extra time, precious time was lost in daily routine work, and distance management certainly needed more time. Moreover national staff were not equipped with the required skills. They needed more intensive training. Among other factors, the duration of the courses was certainly an important factor.

Though time was cited here and there throughout the document, it was not emphasized as a central issue. Hence, I assume that time in its various facets was rarely calculated in a precise manner in the process of introducing the innovative project. Time was underestimated.

In 1986 an attempt was made to bring the project back to life and to reawaken past interest in it. In January of that year, the acting director of the project prepared a report on the project's course of action (PEPIAERD 1986a). After giving a short account of the project, he maintained that the set back was due to: lack of skilled and well trained staff, lack of international expertise, conflicting points of view on concepts

and strategy, and indifference of the project's advisory committee. These frustrations led personnel to drop out.

On 3rd March 1986 the first conference on the Pilot Project in an Integrated Approach to Education for Rural Development was convened. A report on the proceedings of the conference (PEPIAERD 1986b) showed that the discussions of the participant centred around four main areas: the site, the aims and objectives, the organizational structure, and the financial aspect of the project. The discussions revealed the following:

1. The site of the project is not suitable owing to the degree of development of the village.
2. The objectives of the project have not been achieved due to:
   - lack of skilled personnel
   - lack of appropriate training
   - spreading the project's activities to all sectors of the rural community which are beyond its capabilities
   - unavailability of a special building for the project
   - absence of incentives for staff
3. Inadequate administrative responsibility for the project.
4. Money allocations do not cover expenditures

The Conference recommended:

- Transfering of the administrative responsibility of the project to the Vocational Education Foundation, or
- Making a serious attempt to solve the problems

mentioned above

- Marshalling support of related agricultural and industrial associations and organizations as well as mass organizations.

The Conference suggested the closing down of the project in case of inability to realize these recommendations. One observation perhaps needs to be mentioned. It is clear from the appendix of the report that 43 people out of the 83 who were invited to the Conference did not attend. Influential and key figures in the Ministry of Education and other organizations were among those who did not attend. This indicates that the project was in eclipse.

Trying to review the findings of the Conference and to think about the possible future route of the project, the Technical Committee of the project held a meeting on 21st June 1986. In its report (PEPIAERD 1986c), the committee noted, with bitterness, that all key figures in the Ministry of Education did not attend the Conference. Comparing past with present situation, the Committee observed that:

- The project begins with 19 workers and ends with only 4.
- Consultancy and international expertise ended in 1982. Since then, the project has been isolated from international trends and development in the field of rural development.
- Training of personnel stopped since early 1982.
- Yearly money allocation in 1985 decreased nearly to the tenth.

- Out of order equipment and damaged cars were not replaced.

The committee therefore asserted that the project was stripped of its material and human support. As for the main problems, the committee indicated the following: lack of skilled personnel, lack of training opportunities, unclear concepts and strategy, difficulty of addressing all sectors of rural community which stretches the project beyond its limits, and absence of appropriate situational analysis. The committee concluded the report with a list of suggestions which included: reviewing the objectives, strengthening staff with new recruits, providing training opportunities, limiting the activities of the project, exchanging information and experiences with institutions concerned with rural development in the Arab countries, seeking international support, and ensuring continuous evaluation.

These three reports reflect the sufferings of those who shouldered the responsibility of carrying out what remains of the activities of the project. And though these reports sketch a fragmented picture, they implicitly point at the issue of time as a source of trouble. Concepts of an integrated approach to education for rural development were still not clear: they have not been given ample time to go deep in the minds of the concerned people. Members of the project's Advisory Committee were burdened with responsibilities: they had no time for the project. Personnel needed more training: duration of past training courses was certainly one of the factors behind inadequate training. And calls for limiting the

activities of the project mean time was not enough.

After nearly ten years of introducing the project, and five years since the last evaluation carried out by Jain which was mentioned earlier, El Kassim (1987a) tried to draw a rather complete picture of the project. After giving a comprehensive account of the course of action of the project, he maintained that the most acute problems which face the project were the following:

- lack of well trained personnel. While such a project needs teams of workers and specialists in various fields especially when time passes, the rate of drop out of staff throughout the life of the project has been disappointing
- lack of training courses, and lack of qualitative assessment and follow up of local workers
- lack of administrative and technical skills to conduct programmes and activities
- slowness in repairing and maintaining faulty equipment
- sporadic international expertise
- lack of clear vision about methods of working with schools
- ineffective committees
- conflicting personal points of view about the philosophy of the project, and its course of action and strategy. (pp.16-17)

El Kassim pointed out that the project should respond to changes in society, and become a source of change. This, however, he asserted, needs time (p.35). El Kassim then

offered the following suggestions to revive the project:

1. Reconsidering objectives, administrative structures, methods, and strategy in a way which ensures the embodiment of positive elements and overcoming negative aspects.
2. Transferring the project's administrative responsibility from the General Directorate of Education to the Vocational Education Foundation, for the latter possesses the financial power and the required facilities.
3. Reviewing the objectives of the project in line with the development plans and the conditions of the country.
4. Strengthening coordination with mass organizations.
5. Conducting periodic evaluation.
6. Organizing a seminar on education and rural development for all concerned parties to exchange views and to deepen understanding.
7. Encouraging the sense of achievement of the staff of the project.
8. Providing training and re-training for personnel.
9. Benefiting from outside specialists, and creating relations with institutions and organizations which are concerned with rural development.
10. Deepening the concept of integration and the role of integrated education in society.
11. Increasing participation of women.
12. Establishing a documentation centre for the project.
13. Coordinating and exchanging experiences with institutions

working in the field of rural development in the Arab countries.

I agree with El Kassim that an innovative project needs time to become a source of change for the community. But this may only take place if all the factors which contribute to its success are given the right time. Limiting our discussion to the aforementioned study, it seems that the objectives, the administrative structure, the methods used, the strategy, coordination with related institutions, awareness of basic concepts of an integrated approach to education for rural development, incentives for staff, training activities, information base, and evaluation, were not adequately dealt with. Shortcomings persist throughout the life of the project. But there is a great difference between the past and the present time. In the past, (i.e., the first five years of the project's life) there were much more money allocations, more qualified management, more international and national backup, training opportunities abroad, and noticeable enthusiasm of staff, to count but glaring factors. To assume that the shortcomings and setbacks can all be cured is as much a wishful thinking as bringing someone to life from the dead. Hence, it appears futile to suggest reviving the project and patching the old garment. Time has changed. It is perhaps more profitable to learn the lesson and to think about a different project.

2. The Manual Skills Workshops in Primary Schools Project

Studies on this project are few though it was introduced in 1978. In his study on the reality of the workshops in the Schools, Mohammed (1981) presented several recommendations which disclosed the absence of a central body responsible for the project, lack of evaluation, lack of training opportunities for teachers, lack of well-stocked libraries, and lack of specialized supervision of activities. The recommendations also revealed that the project suffered from bureaucratic procedures.

Many of these shortcomings echoed in the Annual Report on the project for the academic year 1986/1987 (Iraqi Ministry of Education 1987a). In fact the report represents an amalgamation of reports on the project from the supervisory units of all the provinces of Iraq. It, more or less, reflects the situation in its variety.

Constraints were many. The most important ones were the following:

- Absence of specialized teachers. The task of teaching and training was assigned to teachers of art education.
- Teachers who participated in training courses conducted by the Manual Skills Centres were not obliged to teach what they were trained for.
- lack of training programmes for teachers both qualitatively and quantitatively.

- Absence of qualified supervisors which led to absence of adequate follow up.
- Lack of tools, equipment and services required for carrying out activities in the workshops in an appropriate manner. Besides, there was lack of such tools and equipment in the local market.
- Unsuitability of school buildings and lack of appropriate halls for workshops.
- Absence of hours devoted to training in the timetable. Training was incorporated in art education hours.
- Absence of a prescribed curriculum.
- Absence of incentives for teachers.
- Lack of faith in practical activities on the part of school administration.
- Lack of relevant books and materials in the school library.
- Recent cuts in funds due to economic considerations.

It appears that this project is of modest quality. A table (p.14) at the end of the report reveals that the primary schools which had workshops constituted 2.19% only of the total primary schools in Iraq, that nearly one third of the teachers were not qualified, and that almost one third of the workshops were not working. Besides, there was no detailed syllabus for training in workshops. Teachers depended mainly on personal efforts and accumulated experience.

The recommendations and suggestions of the Annual Report called for providing well trained teachers, continuous training

programmes, specialized supervision, and adequately equipped workshops. Underestimation of time, however, seems to occupy a space in the report which recommended:

- paying more attention to the duration of training courses provided for teachers.
- reviewing the weekly study plan for primary schools with a view to assign certain hours in the timetable for training in workshops. This means that training should be treated as a distinct subject and be separated from art education.
- introducing the project in longer day schools. Double-shift schools which have special time arrangements are not suitable.

Time, then, is underestimated in training courses for teachers, in hours devoted for training of students in workshops, and in the school day needed. Time is also tied to incentives. Teachers are not expected to spend more time with students or to work beyond official school hours when extra time is not rewarded. However, the writers of the report have aspired to keep the door of the workshop open all the day during school hours, and to keep the door open even after official school hours.

3. The Comprehensive Secondary Schools Project

This project has received much attention from the Ministry of Education since the early 1970s. And though it was

introduced in 1979/1980, the project has never been extended beyond the original four schools. Not only that, but one of the schools was closed early in the life of the project. Hence, the project comprises three secondary schools: two in the capital Baghdad and the third one in a near province.

El Kassim et al. evaluated the experiment in a study conducted in 1982 (El Kassim et al. 1982). The study dealt with various dimensions of the project: Origin, aims and objectives, conditions of admission, relevance of curricula, training programmes, system of examination, and the regulations and directives which govern the school. In its investigation, it employed questionnaires, interviews and visits to the schools.

The study emphasized that problems began early in the life of the project. Buildings and furnishing took more than five years. Administrators in schools were not clear about the philosophy behind the project. Well-trained teachers were few, and more than a half of those who were trained abroad at the beginning of the project, had left the Comprehensive Schools. Teachers lacked enthusiasm and made attempts to quit their job due to longer hours in comparison to ordinary schools. Untrained teachers, on the other hand, employed the kind of teaching methods which they were accustomed to, together with inefficient use of available facilities.

Syllabuses paid little attention to the three principles behind the school, namely, comprehensiveness, integration and

links with society. They were crowded with items, and did not differ from existing syllabuses in ordinary schools. Academic subjects were the same as that of ordinary schools, while vocational subjects were borrowed from vocational schools. The curriculum did not cater for individual differences. Besides, weekly study plan corresponded little to the needs of the school. It merely had more hours because there were more subjects than ordinary schools. Not only that the schools followed the existing curriculum with minor modifications, they also followed existing examinations rules and procedures. The Regulation which governed the school was the same one which governed ordinary schools. From a legal point of view, the comprehensive school was not different from other schools and has been treated as such.

As for students, there was an increase in the rate of drop outs. To a large extent, that can be explained by lack of privileges in comparison to ordinary schools, longer hours spent in school, crowded curriculum, unclear objectives, and lack of facilities in the boarding section of the school outside the capital Baghdad. Moreover, in comparison to ordinary schools, students' achievement - measured by examination results - was found to be low.

As time passes, and with absence of follow up and evaluation, the project has departed from the concept of the comprehensive school. The three schools have concentrated on certain subjects and activities, and have neglected others. The choice of which subjects to concentrate on was made on the

basis of whether the school was for boys or girls, and whether it was situated in an urban or a rural area. The boys school in Baghdad has geared to industrial education, the girls school has geared to commercial education, and the boys school outside Baghdad has geared to agricultural education.

These shortcomings indicate that the project has failed to realize its objectives, and in particular, to teach the student how to learn and to eliminate wastage (pp.41-61).

The study recommended making changes in the organizational structure, providing training for administrators and teaching staff, giving incentives for teachers and headteachers, making special arrangements as regards examinations, providing counselling for students, introducing relevant curricula, organizing campaigns to inform the public about the project, and conducting evaluation studies of the project. Most of all, the study emphasized the need for a special Regulation to govern the school. But in case that these conditions for success cannot be met, the study recommended an alternative based on making changes to incorporate these schools in the existing vocational education (pp.156-163).

Underestimation of time, thus, prevails throughout. Not only does it take nearly ten years to introduce the project, it takes more than five years to construct and furnish the buildings. Training of teachers appears to be inadequate which means that duration of courses as one dimension of training is less than enough. Practical elements in the curriculum are

given less time than they deserve. Since teachers are not that competent, they are not able to make full use of the time available for them which only augments the problem of time shortage. Teachers have to work for extra time without any incentives. Students have to spend more hours in comparison to ordinary schools without any privilege. And there seems to be low or no consideration to the time required to make people aware of the philosophy of the comprehensive school. Thus, underestimation of time comes under various guises during planning and introducing the project.

The findings of the El Kassim study mentioned above echoed in studies conducted later on the Comprehensive Secondary School Project. Sultan (1983) evaluated the project from the points of view of both teachers and students. The sample investigated included all the teachers and all the students in three of the six grades of the three existing schools in the academic year 1982/1983. The study revealed many negative elements. Teachers indicated the following: unsuitable location of school, lack of training courses which are relevant to work in the school, and lack of incentives to motivate them. Students indicated the following: unsuitable location of school and lack of transportation, absence of practice after official school hours, lack of visits to factories and work sites, and reluctance of parents to participate in schools' social activities. The study disclosed that reality in school is far from the concept of a comprehensive school due to: absence of a special regulation which governs the school, inadequate curricula and study plans, poor preparation of teachers and

administrators, and unclear objectives in the minds of all the actors concerned. The researcher concluded that "nothing positive has remained except the name."

After nearly three years of the above research, a study by Khalil et al. (1986) revealed the persistence of the same problems. It indicated, a departure from the concept of a comprehensive school, absence of a special regulation to govern the school, a need to make additions to the existing buildings, a need to introduce the concept of a comprehensive school in the curriculum of Teacher Training Colleges, a need to create awareness of the rationale behind the project among concerned people, a need for well prepared teachers, and a need to give students some privileges. The study, however, emphasized the need for more time to carry out activities. It admitted that hours devoted to practical and technical training were not enough to establish skills in areas of specialization, and that the length of the academic year was not enough for students to acquire practical and scientific experiences and practices. The study also addressed the issue of underestimation of time indirectly. It acknowledged the inadequacy of the weekly study plan to provide for meeting individual differences, and the absence of incentives for both teachers and students. In all this, time was an important dimension: time to draw up a sound study plan, time required to cater for individual differences, and acceptance of both teachers and students to spend extra time in school.

The same conclusion was reached in a symposium on the

diversification of secondary education in the Arab Gulf countries held in Kuwait 21-24 February 1987 (Arab Educational Bureau for the Gulf States 1987:127-141). Taking the experiment of comprehensive secondary schools in both Iraq and Saudi Arabia as examples, the symposium indicated three major constraints:

- lack of incentives to teachers in comparison to the burdens they shoulder.
- lack of in-service training for teachers and other workers. Training is mostly needed in the following areas: the philosophy of school, organization of school, curriculum development, methods of teaching, use of educational technology and methods of evaluation.
- the issue of quantitative dimension. The number of students enroled in schools is below expectations. This indicates a lack of interest in this type of education. It also indicates that the cost of such education is high.

Al Nassir (1987:53) reviewed reports on the Comprehensive Secondary School Project, and maintained that the major difficulties diagnosed by studies were the following:

- absence of a special Regulation to govern the school
- inconsistent study plan
- lack of the required textbooks
- ill-prepared and trained teachers
- lack of special arrangements as regards examinations and evaluation, curricula, and practical activities.

Al Nassir advanced several recommendations and suggestions nearly all of which were mentioned in the studies cited above. One of the recommendations, however, called for increasing the time devoted for practical studies and activities (p.56).

These studies disclose that there was a state of time underestimation at the planning stage as well as subsequent stages of this innovative project. Time was ill-considered in choosing the location of school. Both teachers and students were not given incentives to spend more time during official school hours and after. Time needed to create awareness of the rationale behind the school among concerned people was not paid due attention. Time also was one factor among others behind inadequate training provided for teachers. And most of all neither the study plan nor the hours devoted to technical and practical activities were suitable.

4. Pre-vocational Education in Lower Secondary Schools

This project which was introduced in 1968 in a few schools, has extended rather steadily. Attempts to evaluate the project are few, relative to the length of time the project has been at work. Abdul Latif and Ali (1982) tried to look into the project from the points of view of administrators and teachers. They came up with a number of problems and difficulties which - to some extent - can be considered a culmination of previous studies on the project, and a base for subsequent ones. The findings were the following:

- the distribution of prevocational education sections was not equal among provinces.
- the share of girls' schools of the project was very low.
- student's absenteeism during practical activities was noticeable.
- lack of skilled teachers.
- graduates of technical institutes who were recruited as teachers, were not initially prepared to be teachers.
- lack of in-service training opportunities for teachers.
- weak supervisory system.
- lack of attention on the part of higher administrative bodies.
- absence of a guidebook or a textbook for students.
- fewness of weekly lessons devoted to practical education. Also the duration of the lesson was shorter than normal.
- weak relationship between practical education and other academic subjects.
- lack of suitable halls for workshops.
- difficulty of providing raw materials or finding a substitute for broken tools and equipment (pp.49-50).

Ma'rouf et al. (1978) tried to evaluate introducing prevocational education in the Curriculum of lower secondary schools. The study was restricted to schools in the Baghdad area where there were more schools with adjoining workshops, better equipment and all the benefits of being in the capital of the country. The researchers indicated the need for well-trained teachers, for providing needed tools and materials, and the need for reconsidering procedures of student's evaluation.

As for the issue of time, they observed that hours devoted to prevocational or practical activities were few, that the distribution of hours in the timetable was not adequate, and that there was a need for using workshops after official hours in order to carry out such activities in a proper manner.

Aiming at investigating the extent of success of prevocational education in directing students towards relevant paths in their future pursuits, and the relation between socio-economic status of students and the choice of academic or vocational future pursuits, Khalf and Mardan (1981) made an attempt to trace graduates of schools which provide this type of education. They found that only a few students chose vocational education as their future study which indicates a mismatch between the objectives of the project and reality, and that those who chose vocational schools come largely from low income families. Students also expressed the feeling that training in workshops was not enough and that teachers were inefficient. The researchers advanced a set of recommendations including the need for suitable times to train students in order to master the principles of skills and to develop positive attitudes, and the need to devote a week for practical training in the industrial sections within existing vocational schools.

Lastly, Khalil et al. (1986) attempted to look into the reality of prevocational education in some lower secondary schools in Iraq after nearly 10 years of introducing the project. The study indicated a set of problems and constraints

that faced the project. To a large extent, these were no more than a repetition of the problems cited in the aforementioned studies. One recommendation, however, portrayed the reality of the situation. It pointed out that the recommendations and suggestions of previous studies have been neglected. As for the issue of time, the study also recommended increasing hours devoted to practical activities from two to four in order to constitute 10% of the whole curriculum.

All these studies indicate that the project has suffered from underestimation of time. Hours devoted to practical activities are not enough to impart the desired skills and attitudes. The length of a practical lesson is short. Distribution of hours in the timetable is not educationally sound: they are just fitted in any available slot. In addition to that, the studies underline the need for using workshops after official school hours, for choosing suitable times for training, and for spending a period of time in the more developed workshops of existing vocational schools.

5. The Educational Television Project

Introduced in 1971, this project has been taken, by almost all studies, for granted as something good and necessary for the teaching/learning process. Tawfik and Fulfilli (1981) attempted to diagnose the problems related to the use of ETV. They found that problems can be grouped under four headings: content, presentation, administrative and technical aspects, and school. The content's problems included: lack of

discussion in transmitted lessons, fewness of lessons, and mismatch between lessons and the prescribed curriculum in schools. Presentation problems included: differences of the teaching methods used by the presenters of the transmitted lessons, and the speed of lesson presentation. Administrative and technical aspects' problems comprised: shortness of transmitted lessons in comparison to normal lessons in schools, and unclear picture. And the problems related to school comprised: lack of adequate facilities to receive transmitted lessons such as well equipped halls, double shift schools, and lack of cooperation between school's administration and teachers.

Investigating the points of view of sixth grade secondary school students on T.V. lessons transmitted in the academic year 1973/1974, Al Khamisi and Kundarian (1981) found that there was a timing mismatch between transmitted lessons and the sequence of curriculum (p.47). Students placed the speed of the teacher in delivering his lecture as the highest in rank with regard to the reasons behind boring and uninteresting lessons (p.57). A high percentage of students thought that the duration devoted to each lesson was not enough (p.63). 50% of students asserted unsuitability of transmission time of lessons (p.38). And the number of weekly transmitted lessons were less than enough (p.69). The researchers recommended increasing time devoted to T.V. lessons, understanding the fact that transmission time which suits everyone is impossible, using teaching methods which give students more opportunity to think critically, establishing better contacts between

presenters and students through correspondence, and creating awareness among people of the benefits of ETV. The study also recommended providing teachers with a guide which includes summaries of subjects to be presented, activities to be covered, methods to be used, as well as some suggestions about what activities can be carried out in classroom after watching the T.V. lesson (pp.71-75).

The Educational Television project also has its share from more systematic academic research. One study, in particular, focused on an important issue: the system of production in ETV. Attempting at analyzing and evaluating the process of production of educational lessons, Abu Regheef (1974) concluded that there was no defined plan for production inside the studio, and that there was no well-balanced distribution of tasks or well defined procedures of work for personnel.

A number of evaluative studies focused on the points of view of teachers and students. Al Samarrai (1978) evaluated educational television programmes from the points of view of headteachers, teachers and pupils in the primary cycle. He maintained that among acute problems were: lack of suitable halls to receive T.V. programmes, effects of double-shift schools, failure of electricity power, and low levels of use of teaching aids in transmitted lessons.

Kraidi et al. (1980) investigated the opinions of both teachers and students in schools which receive T.V. transmission. The recommendations and suggestions of the study

indicated low level of use of teaching aids, a need to develop the quality of lessons, a need for more practical elements in the lessons, and a need to choose better presenters. The writers also disclosed a need to match the time of transmission with schools requirement, to increase duration of lessons, and to tune the speed of lesson presentation to the stage of development of children in particular (p.51).

Abdul Abbas and Katan (1983) also attempted to evaluate the televised lessons from the points of view of students and teachers in upper secondary schools. Student responses indicated that they prefer to see an increase in transmission time as well as an increase in the duration of each lesson, a timetable which contains all the necessary information about transmitted lessons, and a match between the timing of ETV lessons and the sequence of curriculum in school (p.36). Teachers' observations appeared to be in agreement with that of students as regards time (p.39).

Time, then, appears to be miscalculated in this project. Miscalculation takes many forms: transmission timing was not adequate to students, the length of the lesson was not enough to cover the presented subject in a proper manner, the speed of lesson presentation was not suitable, and the timing of lessons' transmission was not in harmony with the sequence of the prescribed curriculum. In addition to that, the absence of a regular timetable of the lessons to be presented led to wasting the time of students.

Time also appears to be neglected in the process of production of T.V. lessons due to absence of a well-defined plan for production in studio, as well as to absence of well balanced distribution of tasks among personnel. Yet ETV management seem unwilling to question the procedures of work or the quality of production. Rather, the ETV Annual Plan for the year 1988 (Iraqi Ministry of Education 1987b) included the following contraints: lack of skilled personnel, lack of training opportunities, lack of new equipment, lack of exchanging experiences with similar projects in other Arab countries, and the negative effects of frequent changes in curriculum which entail the production of corresponding lessons. Clearly, the production of T.V. lessons was not among the immediate concerns of the ETV management.

6. The Teaching of Foreign Languages Project

This project which was introduced in the academic year 1980/1981 in a few lower secondary schools, has extended to 23 lower and upper secondary schools in the Baghdad area in the year 1985/1986. Two evaluative studies worth mentioning here. The first one was conducted by Al Ganabi (1984). The sample of the study took all the 12 schools under experiment at that time as well as a selection of technical supervisors, administrators, teachers, students, and parents. The study revealed a host of problems which have accompanied the project since the beginning. The most important problems and constraints were the following:

- lack of information to create awareness among people, especially concerned students and parents
- unclear prospects of the experiment. Students are perplexed about what lies ahead in future when they go up the educational ladder, or if they happen to change their school
- unavailability of language labs as well as unsuitable buildings for installing labs
- conflicting central directives as regards examinations.
- students are forced to study the languages against their will if they happen to come from certain feeding school (flow of students from primary to secondary schools is governed by geographical considerations)
- lack of teaching aids
- absence of motivation for students
- parents do not encourage their children to study an additional language alongside the English language which is compulsory. They consider the English language as the only language which deserves to be learned
- textbooks need revision
- lack of teachers in Spanish language.

The second evaluative study is a more comprehensive one. El Kassim et al. (1986) found that the most important problems which affect the project were the following:

- lack of additional books and references
- lack of teaching aids and libraries
- lack of incentives

- need for additional efforts in teaching the three foreign languages
- lack of language labs
- negative effects on students' achievement in other subjects
- absence of a prescribed textbook
- irrelevance of the three languages to daily life
- burden of homework on students
- lack of coordination among those who are concerned with the experiment (p.128).

The recommendations centred around five major areas: objectives and curricula, incentives, teaching staff, supervision, and awareness. And there were also some general recommendations. Among important recommendations were the following:

- adopting well defined objectives to govern the course of action of the experiment
- continuing the process of developing syllabuses
- introducing the experiment in schools with potential for success, but never in double-shift schools
- giving students some privileges such as a preference over others in entering the college of their choice upon successfully completing the secondary cycle
- preparing qualified graduates from the College of Languages to serve in these schools
- providing more training for existing teachers
- setting a special unit within the Ministry of Education to supervise the activities of the project

- ensuring active participation of ETV in creating awareness of the importance of these languages among people.

Forty recommendations in all, most of which indicated a need for exerting more efforts, spending more time and money, making better decisions, and taking action to carry them out. The study emphasized the importance of time in putting these recommendations into practice. It stated that the recommendations need "reasonably immediate implementation." (p.160)

Looking into the analysis of both students and teachers' responses, it appears that 32.1% of the students indicated difficulties in preparing their homework (p.84). This means that they either have to spend extra time doing their homework, or to redistribute the same time among more subjects. Students also pointed out that the distribution of language hours in the timetable was inconvenient: the last hour in the school day was usually the case (p.90). And 8.4% of the teachers thought that the weekly hours devoted to teach the foreign language were not enough (p.96). The study considered this low percentage as insignificant, as is the case with most other studies. Nevertheless, there appears to be little consideration of the effects of the new project on students' time and on the timetable of the school.

In April 1987, a symposium was held in the Ministry of Education to evaluate the experiment of teaching the French, Russian, and Spanish languages (Iraqi Ministry of Education

1987d). Among the important recommendations were the following:

- Disseminating the experiment after providing success conditions such as suitable buildings, adequate labs, and efficient teachers. The experiment should not be introduced in double-shift schools.
- Providing consultancy through a specialized national commission.
- Ensuring cooperation of related departments in universities.
- Marshalling support of mass media and ETV.
- Motivating students to learn foreign languages.
- Ensuring staff development through initial preparation and in-service training.
- Conducting more evaluation studies.
- Continuing efforts to develop curricula based on well defined objectives.
- Providing sound educational supervision.
- Introducing the German language alongside the four foreign languages.

In fact most of these recommendations were extracted from the El Kassim et al.'s study mentioned above for it was conducted to be discussed in the symposium. The two studies and the final report of the symposium disclosed a need for considering students' time properly; for making organizational changes in the timetable; for balancing the duration of training programmes for teachers with the requirements of their new

roles; and for motivating teachers to spend extra time with their students. In short, there was a need for more time to carry out the project's activities more adequately.

7. The Resident Supervisor

Though mentioned in most official reports, this experiment has not received much attention. It has been considered a failure, and was eventually closed down. Hamid (1981) evaluated the experiment before the Ministry of Education took the decision to end it. This study constitutes the major source of information to us.

The researcher investigated the experiment from the points of view of both the teachers and the resident supervisors (males and females). The most important conclusions of the research were the following:

1. As regards supervision duties:
   - the resident supervisors could not be assertive that the experiment provides more opportunities to organize classroom visits or class demonstrations, to eliminate subjective judgements, or to contribute to the improvement of scientific and pedagogical level of teaching staff.
   - the teachers assert that the experiment does not contribute to improving the teaching/learning process.

- the male teachers point out that the experiment does not lead to raising students' achievement, to better guidance, or to more sound evaluation of school work.

2. As regards administrative duties:
   - the male teachers think that there is no increase of interest in organizing school work.
   - the male supervisors and both the male and female teachers point out that the school library is not provided with more books, and the pupils are not encouraged to use it.
   - Both the female supervisors and the teachers think that the resident supervisors are not reporting for duty regularly.
   - all the respondents agree that there is no change in the rigidity of routine with regard to official dealings and relationships.
   - all the teachers assert that the experiment does not make them more obedient to official rules and regulations.
3. As regards human relations:
   - the male supervisors think that there is no enrichment to their administrative and supervisory experiences or contribution to develop and deepen relations between home and school.
   - the male supervisors and the female teachers assert that the experiment doubles their efforts.
   - all the respondents assert lack of cooperation between school and the official machinery of supervision.

- all the teachers assert that there are no more opportunities to make sound decisions in solving daily problems, no better opportunities to recognize teachers' psychological and personal problems, no more encouragement of dialogue and exchange of experiences among staff, no more deepening of democratic relations inside school, and no more close relations with other educational institutions.
- the female teachers think that the experiment does not lead to more freedom in expressing personal views frankly, and that it fails to establish a mutual respect between the supervisors and the teachers.
- and the male teachers think that the experiment has not been able to create new efficient administrators or supervisors.

It appears from these disturbing conclusions that the project was introduced without making sure that the would-be supervisors were well aware of the objectives and the philosophy of the project, were competent to carry out the job, were well trained in their new roles, were given the right time to assimilate the new idea, were given the required support, and were given incentives for extra-effort and time. Teachers also appeared to be unclear about the rationale behind the project. And the existing machinery of supervision appeared unsupportive because the project constituted a threat to its powers. Hence, in the absence of these factors it seems unwise to have introduced this project in the first place, and unquestionably wise to close it down in order to avoid the

damage it may cause.

In this experiment, time received little attention. The time needed to adequately plan and introduce the project was ill-considered. The time required to consult the headteachers and to elicit their responses was never thought of. And the extra time the headteachers need to carry out their job properly was miscalculated.

8. The Productive Schools Project

This project represents a local effort in planning and implementing an innovation. It started with 8 primary schools in the academic year 1982/1983 and reached 23 primary and secondary schools in the year 1985/1986. The Ministry of Education, in fact, welcomed the move and considered it as a good initiative.

In 1983 a team of researchers visited the project and wrote a report (Iraqi Ministry of Education 1983) on it. The report indicated that the following points should be taken into consideration: developing well defined objectives, drawing up a flexible plan, conducting periodic evaluation, ensuring that practical activities are carried out outside official school hours, providing adequate training for teachers, exchanging visits with other schools, and coordinating efforts with local factories and farms. The report, however, emphasized that the project would not be expanded beyond the province where it was originated until the dimensions of the experiment and its

effects become well clear.

Another evaluative study, (Iraqi Ministry of Education 1986d) revealed that manual and primitive ways were used in production, that activities were financed by donations from teachers and sometimes from students, that the expansion of the experiment to incorporate more schools was not impressive, and that there was lack of incentives for students to exert more efforts. The study noted that students' achievement - measured by examination results - was low especially in schools oriented towards agricultural production, and that the teachers used art education and physical education hours in the timetable to carry out production activities. It also noted that the teachers were in favour of students participation in planning for activities in their schools.

In 1986, a high level decision was taken at the centre that the course of action of the project should be within the following guidelines (Cited in Iraqi Ministry of Education 1987c):

1. Leaving the project as it is and not expanding it beyond existing schools with a view to deepen the experiment.
2. Directing the experiment to embody the educational dimension rather than the productive one.
3 Paying attention to the scientific aspects of school work, and never to carry out activities at the expense of art education, physical education or any other subject.
4. Directing each school to lay down a yearly plan with well

defined course of action.

5. Directing schools to adopt specialization in production.
6. Creating awareness among administrators and teaching staff of the importance of the experiment and its educational potential.
7. Conducting field follow up and continuous evaluation.

One of the results of the above directives was an annual follow up report issued by the Centre for Educational Studies in the Ministry of Education. The first of these reports which was issued in January 1987 (Iraqi Ministry of Education 1987c) attempted to diagnose reality and achievements of the project as well as outlining its problems and future plans.

It is evident from looking at the tables of the report that the majority of schools experienced low examination results in the academic year 1985/1986 in comparison to results of the previous year, in comparison to examination results of the province as a whole, and in comparison to examination results of the country as a whole. 16 out of the 23 schools suffered low examination results. This represents 70% of the schools under the project, and is more evident in schools oriented toward agricultural production.

The school administrations mentioned many problems and obstacles. Those which recurred more than others were: lack of suitable space, lack of suitable equipment and spare parts, lack of qualified teachers, lack of incentives for both the teachers and the students, incompatible time of practical

activities with the timetable, difficulties of marketing products, lack of awareness of teaching staff, and need for more support of parents. Schools oriented toward agricultural production suffered from most of these problems. In addition to that, they had to overcome physical obstacles like shortage of water, and the need for a near and fertile plot.

Time was also underestimated in this project. The timetable of the school had no room for practical activities. Hence, teachers encroached on art education and physical education hours. Unsuitable equipment led to inefficient practices. Marketing of some products took time. And both the teachers and the students were not given tangible incentives to work willingly and fruitfully beyond official school hours. It appears, then, that time has only been given little thought in introducing this project.

9. The Multi-Medium Teacher Training Project

This project was introduced in the first half of the 1970s and faded away, but it was revived in 1983. Studies on the project are few. El Kassim (1976), however, examined the rationale behind the project, its objectives, and future prospects; and evaluated the project's first training course.

The Recommendations of the study revealed a need for new programmes and assignments for teachers which not only equip them with the required skills and knowledge but also deepen their social and political awareness, a need for teachers to

participate in planning for training programmes, a need to make use of modern technologies, a need to create awareness of the rationale behind the project and its positive effects, and a need to provide trainees with incentives. The study also emphasized the importance of evaluation. It called for using training courses as a source for reviewing programmes and methods of training. Evaluation activities should concentrate on trainees, programmes and training processes, and the project and its plan. And the study stressed the significance of following up trainees in their classroom practices in order to make sure of the value of the training courses.

The training method adopted by this project has the merit of demanding the least possible time on the part of the teacher. Teachers are asked to attend classes once a week in the building of The Central Institute for Training and Development. For the rest of the week, the teachers are free to pursue their training and interests at home or libraries through various methods. Thus, work in schools is not disrupted. Moreover, this arrangement helps teachers not to take the trouble of travelling a long way if they happen to live far away from the place of training.

Apart from this merit, there is no evidence that the various methods of training have been concerted in such a way to achieve the objectives of the project. Existing problems also indicate a need for more time to plan and carry out training activities adequately. And, in the absence of evaluative studies on this project, there is no evidence that

the trainees make full use of time when they are on their own.

10. The Headteacher Project

This project, which was introduced in the academic year 1967/1968 and faded away, and then revived in 1977/1978, has also received little attention. Similar in certain respects to the Resident Supervisor Project mentioned earlier, this project also suffered from many problems. Latif (1980), in a report on the project, maintained that among the problems were: ill-chosen headteachers who can not cope with their new tasks, and lack of cooperation with the supervision machinery.

The writer advanced several suggestions which included reducing the teaching load of the headteacher, devoting more time to school work, providing more training for the headteacher to strengthen his capacity, working out well defined tasks so that the headteacher does not interfere with the duties of the supervisor, and consulting the headteacher when writing an evaluation report on the teachers under his care.

Time again constitutes a problem in this project. The headteacher was burdened with teaching, supervising, and consulting tasks all of which need time. Reducing his teaching load solves only one part of the problem. The headteacher needs extra time to add continuously to his knowledge and skills, and to provide sound assistance to his colleagues.

11. Other Projects and Practices

There are other innovative projects and practices (UNESCO 1982:236-266, Iraqi Ministry of Education 1988a). The most cited ones in official documents are the following:

1. The Rotating Students Project
2. The pilot project for Developing Teaching of Biology in Secondary Schools.
3. The Experiment of Counselling and Guidance.
4. The Talented Students Project.
5. The Computer Project.
6. Students Visits to Productive Establishments
7. The Unified Secondary School Project
8. The Accelerated Schools
9. Learning Through Projects in Kindergarten
10. Popular Vocational Training Courses
11. The Special Education Project

The Computer Project, The Unified Secondary School Project, and The Talented Students Project are still at the planning stage. The Pilot Project for Developing Teaching of Biology in Secondary Schools, and The Accelerated Schools Project ended after achieving its objectives. Others are still at work. Analytical studies with critical power are rare on these projects. Most reports on these projects are descriptive in nature, lacking in detail, and exposing major objectives only. Some of the projects even lack distinct features. Hence, the documents on these projects are of no great value

for the purpose of this chapter. However, an account of some of these projects was given in chapter four.

Summary

The studies cited in this chapter reveal that innovative projects suffer from various problems. The factor of time appears to affect many of the factors pertaining to the process of planning and introducing innovations in different degrees. Some of the studies, however, address the question of time explicitly, others address it implicitly. But none of them consider time as a major issue.

The documents on a relatively well planned project (i.e., PEPIAERD), for example, disclose that time-frames and time-manpower calculations are incorrect, that dates are loosely scheduled, that consultants do not arrive according to the timetable, that training opportunities are lost due to slow administrative procedures and bureaucratic arrangements, that training programmes are not sufficient to equip the implementers with the required skills and knowledge, that people hold vague ideas with regard to the objectives and the strategy of the project, and that evaluation is ill-timed.

The studies' findings are largely consistent with regard to the issue of time. Hours devoted to new practices in the weekly study plan are not enough to carry out activities properly. Distribution of hours devoted to new practices in the timetable is not convenient: the least favoured times of

the day to both students and teachers. Teachers rarely spend extra time working with their students - which is needed in introducing new activities - due to lack of incentives. Most people who are directly involved in innovative projects hold vague ideas about the rationale behind them or their dimensions: they have never given ample time to think systematically about these projects. Duration of training courses is not adequate to provide teachers with the needed knowledge, skills and attitudes. And evaluation is not carried according to a planned time.

Almost all projects suffer from slow progress. This means that they fall behind predictions of planners as regards time. Hence, I may conclude that time, in its many facets, has rarely been estimated in a precise manner in the process of planning and introducing the aforementioned innovative projects. In short, time is underestimated.

In general these documents explicitly reveal several reasons behind underestimation of time consistent with those cited in the previous chapter. In the first place, there is strong evidence of inadequate situational analysis before introducing the innovations. Neither the components of projects nor their surrounding conditions are considered properly. As a result of this, many of the factors which can contribute to the success of a project, including the time factor, are miscalculated or played down. Secondly, incentives for the implementers of innovative projects are absent. Hence, there is lack in generating motivation and

enthusiasm to spend extra time or to use available time efficiently. Thirdly, training programmes are inadequate. This negatively affects the skills and capacities of implementers and acts against efficient use of time. Fourthly, the objectives are unclear. This lead to misunderstanding and confusion, and consequently to wasting time. And finally, systematic and well-timed evaluation is absent. Consequently there is lack of corrective actions in due time.

The above-cited reports are not of the same quality. They differ in focus and critical power. In fact, studies of high quality are few relative to the number of innovative projects and the length of time since these projects were introduced. The scarcity of high calibre evaluative studies can largely be attributed to lack of specialists in project's evaluation. In general, evaluation activities are of a mediocre quality. This is due to a number of reasons but mainly to lack of specialists, and lack of conditions which are conducive to conduct high standard studies such as ample time, adequate system of incentives, and the like. Many of the studies are conducted by researchers who are neither trained as evaluators, nor are they dedicated to research. This is why many so called evaluative studies suffer from several shortcomings. They often regurgitate what previous studies exposed or described. Mainly they are descriptive in nature and bland in addressing problems with lengthy passages which are superficial or of no immediate relevance to the issue under investigation. The studies also rely heavily on what Parlett and Hamilton (1972:6-22) term the "classical" approach discussed earlier. The

pitfalls of statistically interpreting complex social phenomena can clearly be discerned. And in most cases, studies are inappropriately presented in their typing and layout. Further, almost all studies neglect questioning the economic merits of innovative projects: their economic returns and opportunity cost. The Educational Television Project is a case in point.

CHAPTER SEVEN

CONCLUSIONS

Modern formal education in Iraq since the third decade of the twentieth century has undergone changes which correspond to the political, economic, and social forces at work in the country. In particular, the political influences have played an overriding role in shaping educational policies and practices. The quantitative growth of the educational sector continued steadily, and gathered momentum during the 1970s to reach its highest levels in the 1980s. This trend has persisted. As for the qualitative changes, the 1920s witnessed the first attempt to provide more relevant education under the influence of Al Husri. Since then, the search has continued for more effective, efficient, and equitable education. The commitment to make qualitative improvements has been relative to the political vision of different governments in different political eras of Iraq's modern history. These change efforts reflect dissatisfaction with what has been offered in schools, and a concern to improve the educational services.

In essence, educational change is a qualitative improvement on a previous practice. But educational change is a complex social phenomenon. Further, research findings are inconclusive or contradictory. However, the knowledge base with regard to implementing educational innovations is extending. And there seems to be a number of well-founded and powerful postulates in the literature.

Adoption or acceptance represents a decision to take up certain behaviour depending on a number of conditions under which innovations tend to become acceptable. These include

communications , relevance or desirability, effectiveness or reliability, feasibility, efficiency, trialability, and adaptability. Further, these conditions provide a sound basis for implementation analysis because the problem of educational change is essentially a problem of implementation.

Evidence of "the mutation phenomenon" is strong. Initial ideas can be transformed or developed. Hence a proposed educational innovation may take another shape in practice.

Models of change are idealizations. Their assumptions about reality are arbitrary and simplistic. These assumptions also reflect ideological perspectives. Classifications of change strategies are also arbitrary. And it appears that a single strategy may rarely be found at work in a school situation. In any case, neither the model of change nor the strategy for change seem to have a great bearing on adopting an innovation.

Models of evaluation are also idealizations. Actual evaluation is shaped by different contingencies. It may begin conceptually as a particular type but may end by taking another shape. However, in general, evaluation pursuits in developing countries appear to be far from being systematic and reliable. Possible reasons behind this state of affairs include inadequate funds, insufficient time, lack of trained personnel, unclear objectives, insufficient data base, limited use for decision making, inappropriate quantitative methods, and political influences.

Time represents a significant and essential dimension in the process of educational change. It bears on all the factors involved in the process of planning for and implementing innovative projects. Time influences decisions to embark on a particular model of change or a strategy for change. A bottom-up change, for example, needs much more time than a top-down change. Research findings appear to be consistent in singling out time as a very important factor in adopting decisions. Hence, the most frequently cited barrier to implementing educational innovations is the lack of time.

The process from initiating to institutionalizing an innovative project needs time. But how much time? It appears that it is impossible to precisely demarcate the total time required for such a process. However, the process is lengthy. Even less complex changes may need from three to five years to be institutionalized. This is why some researchers prefer to err on the side of excess in matters of time allocation. But in addition to their economic cost, "open-ended" time-frames would not solve the problem, and would result in vagueness with regard to the progress of the project.

In this study, the analysis of the data showed that educational innovative projects in Iraq underwent time underestimation. The percentage of this underestimation appeared to reach, in general, up to 50%. This means that innovative projects have experienced a need for half as much more time as that initially thought of, or actually provided. Although this percentage carries the value judgement of the

main participants in the process of educational innovations in Iraq, it is an indicator of the problem under investigation. But why do people underestimate time in planning for and carrying out innovative projects?

1. desire for quick results

The often-cited reason is that politicians and/or decision makers are keen to see quick results of educational change. Many systems of education appear to operate under the ideal of attempting to achieve as many results as possible in the shortest possible time. Political pressures to shorten the process of educational change are clearly evident in developing countries. The main reason behind these pressures include the need to alter irrelevant systems of education, the need to attain economic growth, and the availability of outside assistance. Also, urgency to speed up educational change is evident after change in the political system. New political systems often hold a different vision of education from that of previous systems. All this makes it imperative to feel the results of change in schools in a short time.

2. ignorance

Another explanation for time underestimation that can be inferred from the literature is ignorance. People do not fully perceive the significance, or they are not sharply aware of the character and nature of the time factor. They appear to be unprepared, perhaps through inexperience, to consider time as a factor that can affect other factors in the process of

educational change. Projects are often initiated with the confidence that solutions are easy to arrive at, and that factors involved in the change process, including time, can be manipulated and controlled. But results often fall short of expectations.

3. cultural relativity

From a sociological standpoint, each socio-cultural system has a view of "social time" closely related to its core values. Different cultures have different time perspectives. But some social scientists divide cultures into "modern" and "traditional", and assign to them opposed attributes with regard to time orientation. While the future plays a significant role in the former, the latter's concerns centre around the past.

The dichotomy of modern/traditional, and corollary developed/developing countries is both incorrect and misleading polarization. Such distinction misinterprets complex social phenomena. It perpetuates a sense of inferiority on the part of developing societies by assuming that a modern culture is superior in its valuation of time. And this distinction is ethnocentric by implying that there is only one valid perspective with regard to time (i.e., western model).

Although socio-cultural factors constitute an important part of the time analysis in social settings, they fail to account for the world-wide frequent occurrence of time

underestimation in introducing innovative projects.

4. the opportunity cost

Educational opportunity costs are those costs incurred as a result of educational decisions. And making a decision to have more of something is simultaneously a decision to have less of something else. This applies to the cost of time. For example, the additional time needed by a teacher to manage a new programme means that he incurs an opportunity cost equal to the value of the next best use of his time.

The opportunity cost of time indicates that it is highly probable that the time to be spent on planning and implementing an innovative project can otherwise be used for introducing another project, or solving the problems of an existing project and so forth. Making a wrong choice amounts, thus, to a double cost.

Further, time is translatable into other resources. Time is equated with money. But to what extent can there be a trade off between time and money? Money gives freedom to choose among alternatives. It can, for example, generate enthusiasm of people to spend extra time and energy, and can provide better equipment and adequate buildings. It can give more control over things. Time gives gradual development and manoeuvrability. It appears that there is a trade off between time and money. Money buys some time, but it cannot achieve overnight development. In other words, money is not a full

substitute for time, but it is a reward for labour (i.e., overtime).

Time, then, is translatable into other resources such as money and labour. This is particularly the case via the concept of opportunity cost because lost time means all lost resources. Also, the time-entropy relation, and the energy-entropy relation support the plausibility of placing emphasis on the opportunity cost of time because the development of social systems takes place in a context of finite resources of time and human energy.

Thus, it appears that the argument of the opportunity cost of time makes a strong case for an efficient utilization-pattern of behaviour with regard to time. This is imperative especially in the current economic crisis.

In this study, and largely on the basis of the opportunity cost of time, I assume that people may deliberately underestimate time in introducing an innovative project in order to reduce the apparent cost of a usually lengthy process inspite of the effects of such an act on the innovation.

The analysis of the data (the interviews and the documents) revealed the following reasons behind time underestimation in educational innovative projects in Iraq:

1. Incomplete and weak situational analysis prior to introducing an innovative project. There appears to be a serious lack of adequate information based on both internal and external factors pertaining to each project. Nor are there comprehensive and reliable statistics to support information. This leads to the absence of an integrated or a comprehensive vision which views the wholeness of a given situation rather than its fragmented parts. Such a fragmented vision results in miscalculating the factors which have a great bearing on the course of an innovation including the time factor.

2. Lack of coordination pertaining to office work modes at both the individual and the collective levels. This creates a "state of disconnection" among the participants attempting to introduce an innovative project. Instead of a continuity of practices and a build up of experiences, there appears to be a state of severance and break off. The outcome, inevitably is thwarted or repeated efforts, and wasted time.

3. Lack of interest or poor motivation on the part of workers in innovative projects. This psychological factor can be traced back to exposure to certain practices in schools, to modes of recruiting for jobs, and, later, to modes of assigning tasks to people in educational institutions. As a result of this, work turns into a heavy burden rather than a source of interest, satisfaction, and fulfilment. Work stops adding meaning to life. But life is

conditioned by time. Hence, time in its turn loses meaning and value.

4. Predominance of a top-down change model the outcome of which is the absence of a feeling of ownership. Most of the innovative projects have not emerged or originated from within the organizational units which assigned the responsibility of implementing and supervising them. Hence, projects are often met with aversion or indifference, and subjected to existing bureaucratic procedures. Consequently, delays and time wasting are bound to take place.

5. Lack of skilled and well-trained personnel to carry out innovative projects. Preparation programmes and in-service training courses, as well as staff development programmes are inadequate and insufficient. The problem is further intensified by inappropriate selection of people to implement innovative projects. In one sense, this means that these people are inefficient. And inefficient people cannot use time efficiently.

6. Lack of clear cut objectives and distinct features of innovative projects. The objectives, in many cases, are neither sharply defined, nor tied to a demarcated time schedule. This leads to misunderstandings, misinterpretations, and confusion. Further, detailed delineation of the components of projects is often neglected in the projects' documents. And both direction

and prospect are vaguely stated.

7. Lack of dependable criteria for estimating the cost of innovative projects. To a large extent, this can be attributed to absence of a systematic market economy. For planners, the dilemma resides in striking a balance between low estimates which constrain adequate implementation and high estimates which make them unplausible to decision makers. In other words, the unpredictability of market forces makes it very difficult for planners to manage accurate estimates. Hence, they attempt cuts in the cost of time alongside other cuts with a view to reduce the total cost of the project as a precautionary measure.

8. Fear of accountability on the part of both the planners and the implementing bodies. This is partly related to the previous reason. Individuals and units alike are apprehensive about failure and low quality results. To avoid risks, people prefer to err on the side of underestimation rather than overestimation of costs. But this state is also related to reason no.4 concerning the feeling of ownership. Implementing units resist to be taken responsible for failure of projects that are imposed from outside and not originated from within. Therefore, administrative and organizational obstructive measures, which have a direct effect on time considerations, can occur.

9. Financial considerations due to the economic policy measures in the country as a result of the war and the global economic situation. The Ministry of Education's attempt to rationalize spending practices affected some of the qualitative aspects of the educational process. However, nearly all the innovative projects, except The Computer Project, were introduced before the war, or during the first years of the war when its economic effects were still not apparent on the educational sector. But while there were no cuts in money allocations during initiation and the first years of operation of the projects, this, to a certain extent, has not been the case since around the mid 1980s. Planners, thus, attempted to reduce the costs of innovative projects including the cost of time (e.g., shortest training courses or shorter time-frames for developing textbooks).

10. Lack of systematic and well-timed evaluation. Apart from the low quality of many of the evaluation reports on innovative projects, evaluation, in general, does not constitute an integral part of innovations. In no few cases, evaluation pursuits have been ill-timed. That acted against taking corrective actions when they were mostly needed, thus saving time, money, and efforts.

These reasons are not separate entities: they are interrelated. Further, they, often act in combination with varying degrees of intensity and concentration.

It appears from these reasons that the hypothesis adopted in this study can provide part of the explanation for the problem of time underestimation in planning for and carrying out educational innovative projects in Iraq. Indications of people's intentional underestimation of time with a view to reduce the apparent cost of a lengthy process are evident, for example, in the attempts to reduce the total cost of the projects as a precautionary measure, or in the preference to err on the side of underestimation rather than overestimation of costs. But, in a sense, these indications can be interpreted as more related to absence of dependable criteria for estimating costs of projects, or fear of accountability, than to a firm belief in the worth of underestimation on economic grounds.

However, financial considerations as a reason is clearly singled out with regard to a recently introduced project, namely, The Computer Project. Further, these considerations are cited in relation to provision of training courses, teaching materials and equipment, and modifications of projects' plans. This means that a tendency to base endeavours of improving educational practices on more rigorous economic considerations has started to crystallize in the minds of the people.

This thinking has been greatly influenced by the costly war. Though, in fact, there were no cuts in the total budget of the education sector during the years of the war, the yearly increase in the budget in the mid 1980s was slight in

comparison to the trend of increase which prevailed in the 1970s and the early 1980s. With the steady increase, over the years, in the numbers of students, teachers, and schools, and with the government's commitment to continue programmes such as free education and compulsory primary education, a more efficient thinking was needed. But this thinking has not solely been affected by the war. The international economic scene in the mid 1980s suffered from slow growth. And there was a sharp drop in the price of oil, the major source of revenue for the country.

Therefore, the government has instituted policy reforms to increase the productivity of various sectors. The time factor has been considered as one of the most significant elements in such a process. The military institution has set the example in the efficient use of time especially in the areas of military industries, military engineering, and logistics. All other institutions have attempted to follow the example with varying degrees of success. Thus, a strong move towards more efficient use of time has been created.

In the field of education, efforts have been exerted to translate the need for efficiency into practices. Administrative and organizational changes within the units of the Ministry of Education were introduced. Schools were encouraged to rationalize the use of human and material resources. Educational plans were modified with a view to be more receptive to the new priorities of the country. And individual and collective initiatives to find new ways of

saving time, money, and energy were highly encouraged.

However, practices which yield tangible results with regard to efficient use of time have been more evident in the military and the industrial fields than the educational field. None the less, the frequency with which imaginative ideas have been generated in those fields has created an atmosphere conducive to searching for more efficient educational practices.

That said, the rest of the reasons (i.e., non-economic) appears to account for another part of the explanation of the problem of time underestimation. These include incomplete and weak situational analysis, lack of coordination with regard to work modes, lack of interest and poor motivation, predominance of a top-down change model, lack of skilled and well trained personnel, lack of clear cut objectives and distinct features of projects, and lack of well-timed evaluation.

The analysis of the data in the two previous chapters appears to be consistent with the above mentioned reasons. For example, imprecise time-frames and time-manpower calculations signify incomplete and weak situational analysis; administrative and organizational constraints denote lack of coordination; inadequate incentives system indicates lack of interest and poor motivation; taking decisions on innovative projects at the centre means prevalence of a top-down change model; inadequate training courses indicate lack of well-trained personnel; conflicting views and disagreement over the

project's course of action denote unclear objectives; and delays in taking corrective actions indicate lack of systematic and well-timed evaluation.

Time is underestimated in planning for and carrying out educational innovative projects. But how far is it a problem of under-use or under-exploitation of available time rather than underestimation of time per se? Evidence from the data suggests that time, for example, was wasted in maintaining equipment, or in finding substitutes for dropouts, or in adjusting to changes in the administrative or the supervisory bodies, and the like. These minor examples indicate that the inefficiency of the system of education can even be reflected on the available time no matter how much it is actually underestimated.

Inefficient use of available time aside, underestimation of time might be something which constitutes an inseparable part of the process of introducing an innovation. Something which is in the nature of an innovation. In essence all innovative projects are experimental in nature. As such, there is no way to know what the outcomes will actually be. Nor can we, on moral grounds, take the risk of prolonging exposure of children to unknown effects. Hence, it is not only an issue of material cost, but also of human cost. It seems rational, then, to underestimate the cost of time of an educational innovation bearing in mind that this might effect the quality of anticipated results.

But there must be a critical line beyond which underestimation of time can undermine the process of planning and implementing an innovation. Beyond such a line efficiency would lose meaning and turn into waste. However, evidence from the data in this study appears to indicate that such a line is difficult, if not impossible, to locate. And this is consistent with evidence from the literature on educational change.

In short, the data in this study reveal an emerging thinking in the field of education. Economic justifications for the cost of time in innovative projects are gaining ascendancy. As such, the hypothesis that people deliberately underestimate time with a view to reduce the apparent cost of a lengthy process can only offer part of the explanation for the reasons behind people's underestimation of time. On the other hand, I posit that this hypothesis would gain more validation and substantiation in time. The continuous stress on the significance of time in Iraq would make it imperative to base time calculations primarily on the cost that this entails. Hence the hypothesis has both an explanatory and an anticipatory power.

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APPENDIX I

INTERVIEW SCHEDULE

Estimating Time Frames

1. What steps are usually taken in calculating a time-frame for introducing an innovative project?

2. Are there any attempts to make other types of calculations with regard to time, such as time-manpower?

3. How often have you encountered time underestimation in planning for and implementing innovative projects?

4. Can you indicate a percentage for such underestimation?

5. Can the causes of underestimation of time be attributed to:
   a. lack of skilled and well-trained personnel
   b. lack of incentives to personnel
   c. attempting to achieve quick results
   d. incomplete and inaccurate situational analysis prior to introducing an innovation

   or can they be attributed to some other factors?

Planning

6. How long does it take to consider a new idea before introducing it into the system?

7. How long does it take to draw up or draft a plan for an innovative project?

8. How many persons, on average, participate in drawing up the plan?

9. Do plans proceed as originally conceived?

10. Do you modify the original plan of introducing an innovative project once faced with time pressures?

11. Are these modifications usually related to:

    a. aims and objectives
    b. structure
    c. money allocations
    d. training of personnel
    e. others

12. Do these modifications vary in accordance with the project's characteristics, or do they follow a common pattern?

13. How long does it take to put a contingency plan into practice?

14. How often have you found yourself at variance with your immediate superiors about time-frames or time-manpower of an innovative project?

15. On what grounds is the final decision made?

16. What steps are usually taken in introducing an innovative project?

17. Is there a distinct consideration of time during the planning phase of an innovative project?

Training

18. Was there a match between the number of people who were thought of as being necessary to carry out the innovation and that of the people who actually participated in it?

19. Did all the people who implemented innovative projects participate in training courses?

20. How long were these courses?

21. Were these courses provided before introducing the project or during its implementation?

22. Did those who receive training feel that their preparation was sufficient?

Evaluation

23. Is there an independent unit in the Ministry of Education which specializes in and is responsible for evaluating new projects?

24. Are evaluation studies usually summative or formative in nature?

25. How long does it normally take to conduct an evaluation study?

26. Do researchers within the Ministry of Education choose what they wish to investigate or are they assigned a task to be performed?

27. Do researchers devote all of their time to one study, or do they carry out their investigation while performing other duties and routine work?

28. What are the normal steps in conducting an evaluation study?

29. Is there a common methodological pattern usually followed in conducting evaluation studies?

30. How long does experimentation of an innovative project usually take?

31. How many projects - to your knowledge - ended in something different from what was originally thought of?

APPENDIX II

THE ARABIC VERSION OF THE INTERVIEW SCHEDULE

تقدير السقف الزمني

1. ما هي الخطوات التي يتم اتباعها عادة في حساب السقف الزمني لتقديم مشروع تجديدي ؟

2. هل هناك من محاولات للقيام بأنواع أخرى من الحسابات بالنسبة للوقت مثل الوقت / القوى العاملة ؟

3. كم من مرة قد صادفت فيها مشاريعا تجديدية قدّر فيها الوقت بأقل مما يجب ؟

4. هل بامكانك تحديد نسبة مئوية تمثل الحالة هذه ؟

5. هل يمكن ان تعزى أسباب قلة تقدير الوقت الى :
   - نقص العاملين المهرة والمدربين تدريبا جيدا .
   - نقص الحوافز للعاملين في المشاريع التجديدية .
   - محاولة تحقيق نتائج سريعة .
   - التحليل الموضعي غير المتكامل وغير الدقيق قبل تقديم المشروع التجديدي .

   أو هل يمكن عزو ذلك الى عوامل أخرى ؟

التخطيط

6. ما طول الوقت الذي تستغرقه عادة دراسة فكرة جديدة قبل ادخالها في النظام التربوي ؟

7. ما طول الوقت الذي يستغرقه وضع مسودة الخطة لمشروع تجديدي ؟

8. كم عدد الاشخاص الذين يشاركون عادة في وضع الخطة ؟

9. هل تسير الخطط حسب ما تم رسمه لها في الأصل ؟

10. هل تقوم بتغيير الخطة الاسلية لمشروع تجديدي عندما تواجه بضغـــــوط الوقـــت ؟

11. هل تتعلق مثل هذه التغييرات بـ :

- الاهداف .
- البنى .
- توزيع المصروفات .
- تدريب العاملين .
- اخـــرى

12. هل تختلف مثل هذه التغييرات تبعا لمواصفات المشروع التجديـــــــــدي ام تسير وفقا لنمط معيـــن ؟

13. ما طول الوقت الذي يستغرقه وضع خطة بديلة موضوع التطبيق ؟

14. كم من مرة قد وجدت فيها نفسك على خلاف مع رؤوسائك المباشرين حـــــول السقف الزمني او الوقت / القوى العاملة لمشروع تجديدي ؟

15. ما هي الأسس التي يقوم عليها القرار النهائي ؟

16. ما هي الخطوات التي يتم اتخاذها عادة عند تقديم مشروع تجديدي ؟

17. هل هناك اعتبار متميز للوقف اثناء مرحلة التخطيط لمشروع تجديدي ؟

التدريـــــب

18. أهناك من تماثل بين عدد الاشخاص الذين كان يعتقد وجودهم ضروريا لتنفيذ المشروع التجديدي وأولئك الذين شاركوا فيه فعلا ؟

19. هل شارك جميع الذين قاموا بتنفيذ المشاريع التجديدية بدورات تدريبية ؟

20. كم كان طول تلك الدورات ؟

21. هل تم توفير هذه الدورات قبل تقديم المشروع التجديدي ام اثناء تنفيذه ؟

22. أكان اعتقاد الذين تم تدريبهم بأن تهيئتهم كانت كافية ؟

التقويـــــم

23. هل توجد في وزارة التربية وحدة تنظيمية مستقلة تختص بتقويم المشاريع الجديـــــدة ؟

24. هل الدراسات التقويمية عادة ذات طبيعة نهائية ام بنائية ؟

25. كم يستغرق عادة اجراء الدراسة التقويميـة ؟

26. أيختار الباحثون في وزارة التربية ما يرغبون في بحثه ام يتم تكليفهم بمهمة يتوجب انجازهـــا ؟

27. أيتفرغ الباحثون لدراسة واحدة ام يقومون ببحثهم اثناء تأديتهم لمهام اخرى ولعملهم اليومـــي ؟

28. ما هي الخطوات التي يتم اتخاذها عادة عند اجراء دراسة تقويمية ؟

29. أهناك منهجية تتبع عادة في اجراء الدراسات التقويمية ؟

30. ما طول الوقت الذي يستغرقه عادة تجريب المشروع التجديدي ؟

31. حسب معرفتك ، ما عدد المشاريع التي انتهت الى نتائج مختلفة عما كـان قد خطط لها اساســا ؟

* * *

APPENDIX III

EXCERPTS FROM THE RESPONSES IN ARABIC

1. " .. خذ على سبيل المثال قضية تشييد المدارس الثانوية الشاملة الاربع. لقد كان الاعتقاد سائدا لدى الجانب العراقي في المباحثات مع البنك الدولي بأن الحصول على قطع الارض لانشاء المدارس عليها مسألة سهلة. لكن عندما حل موعد التنفيذ وجدت وزارة التربية ان من المتعذر وضع اليد على قطع الارض التي وقع الاختيار عليها . وتبين ان القطع التي ظنت الوزارة بأنها لا تعود لطرف معين وان الحصول عليها امر سهل هي في الحقيقة مسجلة لصالح بعض المؤسسات الحكومية ، وهذه المؤسسات لديها خطط لاقامة مشاريع عليها . وحتى المدارس التي كان في النية تحويرها عن طريق استملاك ما يحيطها من مبان كانت مسألة في غاية الصعوبة. وهكذا فقد استغرقت عملية توفير الارض وقتا اطول مما خطط لها .."

2. " .. يمكن تصنيف المشاريع التجديدية الى صنفين . الصنف الاول يضم المشاريع التي ظهرت الى حيز الوجود نتيجة للاتفاقيات الدولية مثل المشروع الرائد للتربية المتكاملة من اجل التنمية الريفية في العراق، وهي مشاريع ذات سقف زمني تم تحديده من قبل الخبراء . اما الصنف الثاني والذي يضم غالبية المشاريع التجديدية فسقفها الزمني يتصف بالرخاوة ، بمعنى انه غير ملزم او غير محدد .. " . ".. وعلى العموم هناك دائما تأخير في تنفيذ المشاريع التجديدية .. "

3. " .. لا يمكن تقدير الوقت (لمكونات المشاريع التجديدية) ١٠٠ ٠/٠ بصورة دقيقة .. "

4. " .. وبعد تجريب (كتاب اللغة الانكليزية الجديد) وجدنا بأن الوقت اللازم للقيام بتغطية جميع الانشطة المطلوبة بصورة مناسبة غير كاف ، لذلك قمنا بتقليص الانشطة وحذف بعض الوحدات في الطبعة التالية .. "

5. " .. تشمل قضية القوى العاملة تحديد العدد المطلوب وعملية الاعداد والتدريب . ان حساب احتياجات المدرسة في الحقيقة قضية سهلة لوجود اعداد قياسية ، مثلا معاون واحد لكل ٢٠٠ طالب . لكن المشاريع التجديدية امرها مختلف . ان عملية حساب العدد المطلوب من العاملين لتلك المشاريع لا تتصف بعدم التعقيد وبخاصة عندما نربطها بالوقت وعلى اية حال فان القضية اساسا هي قضية النوع لكن على الرغم من معرفتنا بهذا فاننا نختار العاملين في المشاريع الجديدة من النظام نفسه .. "

6. " .. عند حساب الوقت / القوى العاملة فان نوعية العاملين تعادل في الاهمية كميتهم ان لم تزد عليها . والوضع المثالي يشبه شبكة من المهام ذات زمن محدد وتعتمد على قياس الأداء . اما اذا لم يكن في الامكان تحقيق ذلك ، فان مفهوم الوقت / القوى العاملة يفرغ من معناه .. "

7. " .. يعتبر توفير الكادر المناسب لأداء المهام الجديدة من نقاط الضعف في أغلب المشاريع التجديدية .. "

8. " .. عانت المشاريع التجديدية التي تم وضع سقف زمني لها ، مثل المشروع الرائد للتربية المتكاملة من اجل التنمية الريفية ، من قلة تقدير الوقت بنسبة تتراوح ما بين ٢٥ - ٤٠ ٪ في الاقل .. "

9. " .. لقد عانت جميع المشاريع التجديدية تقريبا من قلة تقدير الوقت .. "

10. " .. لقد كان هناك تقدير للوقت بأقل مما يجب بالنسبة للدورات التدريبية المعجلة لمعلمي ومدرسي المحافظات عند ادخال كتاب اللغة الانكليزية الجديد ، ولكن لم يكن هناك من بديل .. "

11. " .. تتراوح نسبة تقدير الوقت بأقل مما يجب في المشاريع التجديدية ما بين ٢٠ ٪ و ١٠٠ ٪ .. "

12. " .. ان ما يناسب مجتمعا معينا قد لا يناسب مجتمعا آخر . فمن الشروط المهمة للنجاح تلبية المشروع لحاجات النظام التربوي وكذلك حاجات المجتمع . لكن هذا الشرط لم يؤخذ بعين الاعتبار . ويعزى هذا الى التحليل الموضعي غير المتكامل او ضعفه قبل ادخال المشروع التجديدي. والنتيجة هي ان جميع التقديرات بما فيها تقدير الوقت تكون عرضة للخطأ .. "

13. " .. ان احد الأسباب الهامة لتقدير الوقت اللازم لتنفيذ المشاريع التجديدية بأقل مما يجب يعود لعدم وجود المعايير التي يمكن الاعتماد عليها في تخمين الكلفة .."

14. " .. لم يكن لدى الدائرة التي كانت مسؤولة اداريا عن المدارس الثانوية الشاملة تصور واضح عن المشروع التجديدي .. لهذا لم تعامل المدارس الثانوية الشاملة بشكل يختلف عن معاملة المدارس الثانوية الاعتيادية .."

15. " .. يكن أصل مشكلة قلة تقدير الوقت في عدم وجود الاهتمام او التحفيز اللازم لدى مخططي المشاريع التجديدية والعاملين على تنفيذها .."

16. ".. من المفروض ان يعمل المخطط والفني والاداري بشكل متناغم. لكننا نلاحظ ان قابليات المنفذ ضعيفة على الرغم من ازدياد صعوبة وتعقيد عملية التغيير التربوي في مرحلة التنفيذ . ويعرف المخطط مسبقا بأن من الصعوبة بمكان تنفيذ المشروع وفقا لجدول زمني .. "

17. " .. قد تستغرق بعض المشاريع التجديدية وقتا طويلا لكي يتم ادخالها. فمثلا استغرق المشروع الرائد للتربية المتكاملة من اجل التنمية الريفية ما يقارب من ٨ سنوات واستغرقت المدارس الشاملة حوالي ٩ سنوات .. "

18. " .. تمتاز خطط المشاريع التجديدية بالمرونة ويمكن تعديلها او تغييرها .. "

19. " .. ستجري تعديلات على تفاصيل خطة مشروع الكومبيوتر مباشرة عقب السنة الاولى لتطبيق التجربة في المدارس من اجل امتصاص الجوانب السلبية .. "

20. " .. يعاد النظر في جميع مكونات المشروع التجديدي بهدف اجراء التحسينات عليه ، وعلى وجه الخصوص بسبب ضغط الوقت .. "

21. " .. يؤخذ عامل الوقت عادة في الاعتبار اثناء مرحلة التخطيط لكن الأسس التي يجري بموجبها حسابه ضعيفة .."

22. " .. نحن في العادة نحدد الوقت اللازم للتجريب وهذا اساسا ما نقوم بالتركيز عليه .. "

23. " .. هناك اعتبار لعامل الوقت في تخطيط المشاريع التجديدية ويظهر هذا جليا في تنفيذ المشاريع وفقا لمراحل ذات سقف زمني محدد .. "

24. " .. ان علاقة التدريب بأهداف المشاريع التجديدية بشكل عام هي علاقة رخوة .. "

25. " .. يتم تحديد مدة التدريب في ضوء الحاجات التدريبية ، لكن هذه الحاجات لا يحكمها رأي المتدربين . اذن من اين يتم استقصاء الحاجات التدريبية ؟ أولا التغييرات التي تحصل في المناهج ، ثانيا رأي المتدربين أنفسهم (معلمون ، مديرو مدارس ، مشرفون) ، ثالثا خبرات وتجارب الدول الاخرى والاتجاهات العالمية في مجال التدريب ، رابعا مناهج معاهد المعلمين ، واخيرا نتائج تقويم الدورات التدريبية ..

ان المشاريع التجديدية تتطلب تدريبا اكثر من التدريب الاعتيادي ، لكن كيف يتم تحديد مدة الدورات التدريبية ؟ يقوم المخططون بوضع مسودة حاجات المشروع التجديدي والتي تتضمن أهداف الدورة التدريبية ، المستوى المهني للمتدربين ، نوع التدريب المطلوب وما الى ذلك . بعد هذا تقوم وحدة التدريب في الوزارة بدراسة المسودة ووضع مفردات البرنامج التدريبي وتحديد انماط التدريب المناسبة . وكل مادة او مفردة تدريبية تأخذ وقتا معينا في ضوء أهدافها . وبناء على ذلك يتم تحديد مدة الدورة التدريبية ..

ان وحدة التدريب ومعهد التدريب والتطوير التربوي ينظران الى التدريب بوصفه جزءا من عملية التعلم المستمر . ولا ينحصر التدريب بنمط واحد وانما تتم الاستفادة من انماط مختلفة ضمن البرنامج المقرر وذلك من اجل الاستخدام الامثل للوقت .. "

26. " .. ليس هناك تحديد للوقت بالمعنى الصحيح للكلمة في الدورات التدريبية . يتم تخطيط الدورات وفقا للتخصيصات المالية المتوفرة .."

27. " .. بشكل عام تلعب الاعتبارات المالية دورا اساسيا في تخطيط الدورات التدريبية .. "

28. " .. لقد كانت هناك حاجة لمزيد من التدريب لان الدورات عادة لا تقوم بتغطية جميع ما يحتاجه المتدربين لتنفيذ عملهم بصورة مناسبة .."

29. " .. ان قضية التدريب المناسب نسبية . يفترض بالتدريب ان يكون مناسبا اذا كان اختيار المتدربين سليما . واحد الأسس الجوهرية في عملية الاختيار هو الرغبة بالعمل . لكن عملية اختيار المدرسين لتنفيذ المشروع تمت من دون اخذ ذلك بعين الاعتبار .. "

30. " .. تجرى الدراسات التقويمية عادة عند شعور المسؤولين الاعلى بالحاجة لها نتيجة لوجود مشكلات او اختناقات او اخفاقات .. "

31. " .. بشكل عام لا يشكل التقويم جزءا مكملا للمشروع التجديدي وبعض المشاريع لم تقّوم الا بعد مرور فترة طويلة على بدء تنفيذها .."

32. " .. يجب ان يرتبط التقويم بأهداف المشروع التجديدي . وهناك اربعة ابعاد يجب اخذها بنظر الاعتبار هي المحيط والمدخلات والعمليات والمخرجات . لكن التقويم عندنا لا يسير وفقا لهذه الأسس وذلك لثلاثة أسباب رئيسية هي : صعوبة هذا النوع من التقويم ، وعدم وجود المتخصصين في تقويم المشاريع ، وعدم توفر الوقت اللازم لاجراء مثل هذه الدراسات .. "

33. " .. في الفترة الاخيرة تم اجراء جميع الدراسات تحت ضغط عامل الوقت .. "

34. " .. هناك عدد قليل من الباحثين مثقلين بمهمات يتوجب انجازها .. "

35. " .. هناك اختلاف كبير بين التجريب والتنفيذ . التجريب يميّع المشروع التجديدي .. تدريجيا يبدأ المشروع بالانحلال ويمكن ان يضيع وبخاصة اذا استغرق التجريب وقتا طويلا وهذا ما حدث بالنسبة للمشروع الرائد للتربية المتكاملة من اجل التنمية الريفية .. "

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APPENDIX IV

The Educational System in Iraq: A Profile

This very brief profile depends on the following main sources:

1. Ministry of Education (1988). Development of Education in Iraq: 1985/86-1986/87, a report presented to the 41st session of the International Conference on Education in Geneva, Baghdad.
2. Ministry of Planning (1986). Annual Abstract of Statistics for 1985, Baghdad: Central Statistical Organization.
3. UNESCO (1986). EIPDAS News Letter, No. 6, Kuwait: EIPDAS Regional Unit (Arabic original)
4. Ministry of Education (1989). The Educational Statistics for the Academic Year 1988/89, Baghdad. Roneo typed. (Arabic original).

Iraq is situated in the south-west of Asia, and bordered by Turkey, Iran, Kuwait, Saudi Arabia, Jordan, and Syria. It covers an area of 438,317 sq. km. The 1987 population was over 16 million with an annual growth rate of 3.2%. The large majority of population are Arabs, and Arabic is the language of instruction except in three provinces which are largely populated by Kurds. These provinces enjoy autonomous rule, and Kurdish is the language of instruction at the primary and secondary level. Administratively, Iraq is divided into eighteen provinces, and Baghdad is the capital.

Iraq is a major oil exporting country, and considered to have one of the world's largest oil reserves. Exportation of oil was largely affected by the war conditions which in turn affected national income, per capita income, and gross domestic product. National income decreased from I.D. 15,323.0 million (one Iraqi dinar equals 3 U.S. dollars approx.) in 1980 to I.D. 10,064.9 million in 1981 at an annual decrease of 34.3%. In the years that followed, the national income slightly increased

to reach I.D. 11,452.1 million in 1984. The annual rate of increase was 4.4% between 1981-1984. But Iraq regained her exportation capacity after the completion of a pipeline project, in the second half of the 1980's, which transports oil across Saudi Arabia to ports on the Red Sea. This has given Iraq considerable flexibility over exporting oil. In addition to that, the war stopped in 1988. The economic situation has, thus, improved steadily.

Education is the state responsibility. The Constitution stipulates that the state is committed to eradicate illiteracy, and to provide free education at all levels. Also, the state is committed to ensure the freedom of scientific research, and to encourage intellectual and artistic activities and creative achievement.

Education services are financed solely by the government. This includes all levels of education from kindergarten up to the university level as well as higher studies. Not only that education is provided free of charge at all levels, but the Ministry of Education is committed to provide education to each Iraqi Child.

The Ministry of Education has a direct control over education all over the country. The responsibility for administering the education system is shared between the central government and local administration in the provinces. There is a directorate general of education in each province, which is responsible to the Ministry for all technical matters.

All policy decisions are made by the Council of Education chaired by the Minister of Education and is comprised of the undersecretary, all directors general and representatives from relevant ministries and institutions. The Ministry of Education is responsible for general and vocational education as well as teacher training institutes.

Higher education is administered by the Ministry of Higher Education and Scientific Research. But universities are autonomous with regard to most of the technical and administrative matters. Besides, Ministries such as Industry, Health, Agriculture, Labour and Social Affairs, Oil and Communication have their specialized training centers.

The education ladder in Iraq is as follows:

Pre-school education: it is of two years duration for the age group 4-5.

Primary education: this cycle is of six years duration covering the age group 6-11. It is compulsory for all children who complete six years of age. The cycle terminates with a certificate.

Secondary education: this cycle is of six years duration covering the age group 12-17, and is divided into two levels:

Lower secondary education (or intermediate) which is of three years duration. This level complements the primary cycle and provides the students with more general knowledge. It terminates by a general examination.

Upper secondary education (or preparatory) which is also of three years duration. It prepares the students for university study or labour market. This level is divided into two sections: scientific and literary, and terminates by a general examination.

Vocational education: this is another type of upper secondary education. It is of three years duration and consists of three specializations: industrial, agricultural and commercial.

Primary school teachers are prepared through:

1. Teacher Training Institutes of five years study after the lower secondary level.
2. Teacher Training Institutes of two years study after the upper secondary level.
3. Specialized teacher training institutes such as the Institute of Fine Arts (five years), and the Institute for Special Education (two years).

Secondary school teachers are all university graduates.

In spite of the war, quantitative growth has continued. Between 1980/1981 and 1988/1989 primary school attendance rose from 2.6 million to slightly over 3 million, secondary school attendance rose from 950,142 to 1,007,332, and vocational school attendance rose from 56,835 to 145,863. Also the number of students in Teacher Training Institutes rose from 27,642 to 32,568. And there were corresponding increases in the numbers of teachers, school buildings and educational facilities for the same period. In addition to that, quantitative growth has continued in higher education. University enrolment rose from 102,430 in 1980/81 to 141,762 in 1985/86. Further, between 1985/86 and 1988/89 the number of universities increased from 7 to 10. And the number of technical institutes rose to 30.

The Ministry of Education undertakes the responsibility for developing the curricula, textbooks and teaching aids. The curricula are largely uniform in schools. And each textbook is the product of a long collective process. Textbooks are subjected to continuous evaluation and modifications. The reformulation of educational aims and objectives in 1982 has greatly influenced the process of curriculum development. Other major qualitative improvements include developing teacher education, the system of examinations, educational administration and educational supervision.

The main educational policy trends emphasize extending compulsory education to the lower secondary level, channelling students towards technical education, raising internal and external efficiency of the system, paying due consideration to disadvantaged children, linking education to productive work, improving adult education programmes within the framework of life-long education, and introducing innovative projects on experimental basis.

Innovative projects have, in most cases, been planned by the Directorate General of Educational Planning. Projects are

usually implemented by concerned or benefited directorates. For example, the Manual Skills Workshops Project in primary schools is under the administrative responsibility of the Directorate General of Primary Education. The projects are supervised by the same body or, in some cases, by a committee set for this purpose. And the projects are usually evaluated by a special committee or by the Center of Educational Studies in the Ministry of Education.

Up to 1987, there was no specific unit, within the Ministry of Education, which is responsible for educational innovations. Innovative projects were under the financial and administrative responsibility of related directorates. In 1987, a unit to be responsible for educational innovations was established in the Ministry.