HUMAN RESOURCES DEVELOPMENT IN SAUDI ARABIA:

CASE OF TECHNICAL MANPOWER

PROGRAMS AND NEEDS

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CHAPTER I

INTRODUCTION

Human resources development is a broad area of study. The subject is spread widely among health, welfare, training, and educational institutions. Human resources development can be considered from a social, economic and political view point. There have been many studies concerning these factors and their influence on human resources development. Some of these studies reach far away from human nature. Some of them misdirect mankind's ambitions and lead to political or economic slavery. The most pressing problem of these studies, of which this writer has learned, is the isolation of man from his nature, environment, and capabilities. However, this was not a social or psychological study. It was a study of man as a part of his community's power in the Kingdom of Saudi Arabia, which is now considered one of the developing countries of the world. Saudi Arabia has almost all of the developing countries' problems and characteristics. This study considered education and training aspect of human resources development. Education, as a whole, is an extremely broad field. In the case of Saudi Arabia, which is presently in the basic industrialization era of development, technical education is considered one of the basic elements to be further developed.

Need for This Study

The educational system of Saudi Arabia in the 1930's has neglected the technical segment of education. However, when the Kingdom became involved with the world of industry, technical education programs became very important as a part of human resources development.

The government of Saudi Arabia initiated the first long-range plan for national development in 1970 and the second plan in 1975. They are, officially, the Five-year Plan -- 1970-1975 and the Second Five-year Plan -- 1975-1980. These plans considered industrialization as a major element of the country's development; therefore, technical education became a prime source for providing the country with technicians in the 1970's.

An intensive study of the role and the actual situation of technical education in the country is needed in order to evaluate the successes and failures of the past years in order to plan for the future. Specific barriers need to be identified, and suggestions should be made for the alleviating or over-coming these barriers.

This study was needed to determine the state-of-the-art of technical programs in Saudi Arabia and make suggestions for the planning and development of these programs as a part of the human resources development goal.

The Purpose of This Study

The purpose of this study was to determine the status quo of technical education programs in Saudi Arabia in terms of their contributions to the Kingdom's human resources development. It also was to examine program kinds and levels, as well as student recruitment and graduate

supply in order to identify the problems now existing or those which might confront the development of technical manpower in the field of education in the future. This study also was to specify what should be considered for the purpose of fulfilling technical manpower needs of the Kingdom in future planning.

Limitation and Objectives

This study was limited to technical education programs in the Kingdom and their contribution as a source of technical manpower for the Kingdom. Also, the major concern was the contribution of technical education during the first and second Five-year plans (1970-1975, 1975-1980) to the Kingdom.

The study was an attempt to obtain only that information indicated below:

1. Examination of the current technical education programs and their fulfillment of manpower needs in terms of -
   a. Levels and kinds of programs.
   b. Projected number of graduates from the programs.
   c. The extent to which graduates are of satisfactory quality.
2. Determine the current and future number of technicians and skilled workers needed for the Saudi's first and second Five-year Plans - (1970-1975, 1975-1980).
3. Identify any problems facing human resources development in the Kingdom in the area of technical manpower.
4. Make suggestions as to what is needed for schools to produce the numbers and kinds of graduates needed for future plans.

Data and Information Collection

In Saudi Arabia, as in any other developing country, lack of information is the main problem confronting researchers and investigators.

For this study the investigator was confronted with just such a situation: There was a lack of information in terms of unavailability and/or unreliability. Some data in the country were not available, mostly for confidential purposes; and some other, specifically statistical data, were not reliable or have not been accumulated. However, this investigator has tried every possible way to gather and collect data and information which was needed for this study. The following resources have been considered for this purpose:

1. Saudi government ministries, including: The Ministry of Education; The Ministry of Planning; The Ministry of Industry; The Ministry of Commerce; The Ministry of Agriculture; The Ministry of Defense; The Ministry of Labor, and the Ministry of Information.
2. Saudi agencies, including: Saudi Arabia Monetary Agency (SAMA); Civil Service Bureau (CSB); Central Statistical Department (CSD); Industrial Studies and Development Center (ISDC); Saudi Basic Industrial Corporation (SABIC) The General Petroleum and Mineral Organization (BETROMIN): The Institute of Public Administration (IPA), and The General Presidency of Girls' Education (GPGE).
3. University Libraries and Research Centers, including: Oklahoma State University at Stillwater; King Abdal Aziz University at Jeddah, and Riyadh University at Riyadh.

4. Educational Service Centers, including: University Microfilms; Educational Resources Information Center (ERIC) system; and the Interlibrary Loan System.
5. American agencies, including: The State Department of Vocational and Technical Education (SDVTE), Stillwater, Oklahoma; Foreign Area Studies (FAS) of the American University, Washington, D. C.; and The National Technical Information Service (U. S. Department of Commerce).
6. Local and International: Newspapers, magazines and other periodical publications concerning the subject.
7. International agencies concerned with the subject: The UNESCO and ILO (International Labor Organization), and
8. Official personnel in both Saudi Arabia and in the United States, as well as selective people concerned with the subject and/or associated with it as professionals, administrators, teachers, students, technicians, and employers.

Methodology

A historical-descriptive analysis type of research has been employed to collect, review, and examine the information available in the field of human resource development and the contribution of technical education in Saudi Arabia as a developing country. The following steps have been taken for reviewing and examining information, and for developing, administrating and analyzing the questionnaire:

1. A complete review of all data and information available regarding educational and vocational technical training

systems and their effectiveness on social and economic development and their place in human resource development, as well as the major concepts of planning and national development.

2. An examination of the present situation of human resources development in the Kingdom of Saudi Arabia to identify its place in future plans and in actual situations.
3. Contact by Telephone or office visits to clarify some information and to identify some of the problems associated with technical manpower and technical education for the purpose of developing a questionnaire.
4. The development of a four-part questionnaire to determine problems or assumptions which are considered by a large number of Saudi educators concerned with technical education programs and vocational training. This is for the purpose of identifying major barriers which confront technical education and the development of technical manpower development within the Kingdom.
5. To administrate the questionnaire technique with a random sampling of forms 1, 2 and 3, which are concerned with the present enrollment (Form 1), former graduates (Form 2) of secondary technical programs and government agencies (Form 3). Selective personnel were concerned with Form 4. Form 2 was furnished exclusively to the Ministry of Defense and Aviation; and finally
6. The data were analyzed; conclusions were drawn, and recommendations were given.

Definition of Terms

Terms do not always mean the same thing among all authors and editors. However, the following terms were defined as follows for this study.

Evaluation: Measurement of progress in reaching long and short term programs objectives by comparing different strategies for specified objectives; identifying and measuring progress toward long term objectives; monitoring program operations to determine relative efficiency over a period of time; comparison of incomes and length of time jobs are held for program participants after program is completed within similar groups.

Follow-up: A contacting of a former client to determine how he is doing on a new job to measure program effectiveness. It can be used in evaluation services that have been provided to the client as well as measuring the current needs of the client.

Human Resources; Refers to all of the productive activities and the potential contribution of human beings.

Human Resources Development: refers to the effort to enlarge upon the population productiveness and the use of peoples' full potential for making life better for themselves and for others too.

Manpower: Human resources which include the possession and use of a peoples' total accumulated knowledge, skills and decision-making capabilities.

Manpower Demand: The need for human resources often expand as wages, goods, and services increase. These resources are achieved through counseling, education, training, work experience, etc., which

contribute to the improvement in employability and general welfare of people in the employment nexus.

Manpower Planning: A systematic way of thinking through and designing a system to improve manpower through development. It includes every effort to foresee manpower problems, establish manpower goals, and gives a basis for designing a systematic approach for avoiding or achieving their goals.

Manpower Policy: All social decisions which deliberately affect -

1. The use of people in labor markets as economic factors of production.
2. The ability and opportunity for people to pursue remunerative and satisfying working careers in employment.

Semi-Skilled Worker: A person who has been trained to do a certain job or to perform a specific work but who does not have the knowledge to the degree of a skilled worker.

Skilled Worker: A person who has a full knowledge and capability to perform certain jobs or specific work, ranking somewhere between the semi-skilled and semi-professional worker.

Technical Education Program: A secondary level education concerned with industrial, commercial and agricultural trades with approximately fifty percent of their curriculum involving practical work except in the Commercial Trades where it approximates thirty-five percent of practical work.

Vocational Training Program: A type of training offered for those between 16-33 years of age with eighty percent of its curriculum in practical work.

CHAPTER II

REVIEW OF LITERATURE AND BACKGROUND INFORMATION

Introduction

The relevance of vocational education to the underdeveloped countries has been attacked by several investigators using different methods ranging from observations and interviews to systematic follow-up studies. Both economists and educators have a vital interest in the problem as it is related clearly to economic growth and to educational planning of a given nation.

Although there have not been many studies of technical education in Saudi Arabia other than official reports, the research findings about other developing countries can be expanded here because they will provide the theoretical framework for the present investigation.

The matter here is linked to manpower needs of a country, and it is, therefore, obvious that the lack of precise measures of these needs would negatively affect the educational planning to meet them. Harbison and Myers conclude that education in the underdeveloped countries is poorly compatible to manpower needs. This conclusion is crucial when, upon examining several cases where, for example, vocational education has been provided, presumably, in response to estimated manpower needs.[1]

Human resources development is concerned with improving all individuals in terms of political, economic, social and cultural aspects. These authors emphasized that it is necessary to look at development from a "point of view" and come up with an analysis from this perspective. These authors stated that:

> In economic terms it could be described as the cumulation of human capital and its effective investment in the development of economy. In political terms, human resources development prepares people for adult participation in political processes, particularly as citizens in democracy. From the social and cultural points of view, the development of human resources helps people to lead fuller and richer lives, less bound by tradition.[2]

On the other hand, natural resources and physical capital has a lot of influence on any country's economic development and growth. Therefore, developing human resources will not always solve the country's problems if they are not related to that. The authors stated that:

> A country may have well-developed human resources, and its growth may be regulated by failure to develop the organization and institutions which characterize a progressive society. Investment in man will not promote continuous economic growth unless it is accompanied by the investment of physical capital in productive enterprises. Some countries have under-developed human resources, for example, Iraq or Saudi Arabia, these countries can import both material and human capital to develop natural resources. Other countries with better developed human resources, such as Egypt, are poor primarily because they lack adequate material resources.[3]

Harbison and Myers had established a composite index providing a rank order of seventy-five countries around the world.

There were four levels of development: 1) Underdeveloped, 2) Partially developed, 3) Semi-advanced, and 4) Advanced. Level one

which is the lowest level, includes 17 countries. Nigeria is the first on level one. It ranks 0.3 while the United States of America ranks 261.3; the highest on level four. Saudi Arabia, number six on level one ranks 1.9. The composite index was based on the arithmatic total of:

> (1) Enrollment at second level of education as a percentage of the age group 15-19, adjusted for length of schooling and (2) enrollment at the third level of education as a percentage of the age group - multiply by weight of 5.[4]

While they depended on this approach as a practical way, they gave an ideal indication of the stock of human capital in terms of international comparison as the most useful. Their indication included the following:

1. Levels of educational attainment. The number of persons in the population who have completed the following levels of education:
   First (Primary or elementary)
   Second (Secondary) and
   Third (Higher education).
   The last two are particularly important in indicating the stock of high-level manpower; especially the proportions in the second and third levels which have completed scientific and technical courses.
2. The number of persons in relation to the population or labor force, who are in high-level occupations. Especially, the numbers in selected strategic occupational groups: scientists, engineers, managers, teachers (all levels), doctors and dentists, scientific and engineering technicians, nurses and medical assistants, and persons in the forman-skilled worker catagory.[5]

Alfred Marshall put great emphasis on human resources and educational investment when he said: "The most valuable of all capital is that invested in human beings."[6]

Vocational and technical education is one of the most important elements to be considered in developing countries in terms of human resource development. Oftentimes developing countries are impressed by the numbers of buildings and graduates. "They may stress the modern buildings rather than the competent staff. They may be under pressure to expand numbers of students enrolled at the expenses of maintaining standards."[7]

Levitan, Mangum and Marshall described the educational system in developing countries as:

> The quantity rather than the quality is the main concern of educational planners in the developing countries. Emphasis in education is still academic rather than vocational, but due to shortages in technical skills, some of these countries have been shifting their emphasis to vocational education. Investment in higher education has been growing without checking the validity of such investment. Higher education is still motivated by prestige rather than economic need.[8]

In Saudi Arabia, as in all wealthy countries (wealthy in physical resources but with a shortage of human resources), a good manpower planning program should be provided to support comprehensive development of the country. For this reason alone much care should be taken in making the plans. Mangum and Levitan have discussed eight points which make manpower planning so important. These points are:

1. Manpower is a vital economic resource.
2. Employment becomes the primary source of income as a result of industrialization.
3. Industrialization transfers labor to production and distribution of manufactured goods, and wealth of industrial owners.
4. Labor has an influence in economy and sociology.

5. Human resources are the wealth of nations
6. Planning is a necessity in this world of rapid change.
7. Solving a specific problem.
8. Enhancing every human ability which has an effect on the labor market.[9]

Yesufu has stated that manpower requirements and needs should include all aspects of occupations:

1. The periodic appraisal of requirements in all occupations and in all productive activity through the federation.
2. The periodic analysis of costs of formal education and the determination of the order of priority in expenditures for education to promote the economy, and
3. The development of measures for in-service training of employed manpower both in government service, in private industry, and in educational institutions.[10]

Alaki made the first major study about industrial education in the Kingdom. His intention was to examine the major problems facing industrial vocational system.[11] Such problems include programing, teacher quality and student enrollment and are common to all types of vocational education and have been discussed at length in Chapter V from page 168 through 182. In Chapter VI the author discussed some of the related problems which have the same patterns in developing countries. They are social, educational and lack of cooperation problems.[12] However, Alaki's study is basically concerned with the old industrial vocational education system in the Saudi Arabian Kingdom which depended upon the intermediate school level. Also, Alaki stated that: "The

planning of educational development is inadequate, resulting not only in shortages of skilled manpower, but in disparities between the output of the educational system and the needs of the economy."[13]

Al-Jallal made the first major study in evaluation of the vocational schools in the Kingdom of Saudi Arabia. He concluded his study with the following statement:

> The criteria used here were the proper placement of vocational graduates, the attitude towards vocational work, the stoppage of internal migration and the compatibility between vocational education and the national manpower needs. These criteria were selected because of their close relationship to the specific objectives of the Saudi vocational education. The present findings provide direct information in all of the criteria except for the last one, the compatibility between vocational education and national manpower needs which needed more information drawn from the Saudi government's documents.[14]

In the study conducted by Al-Jallal 100 percent of the vocational education graduates worked in outlying military areas, are holding completely unrelated jobs, and they too, have reported having training in non-related jobs.[15] He stated that, "The Ministry of Defense ranks first in utilizing these graduates inefficiently."[16]

Mussa attempted to include all dimensions of human resource development in Saudi Arabia with respect to formal education and training, socio-cultural factors and government policies, plans and programs. He concluded that,

> Saudi Arabia will have no other alternative but to rely on imported labor. But such a reliance should be for a short term, and every effort should be made to generate the required skill among the Saudi nationals.[17]

Ramon Knauerhase illustrated the history and growth of education in Saudi Arabia, but he mentioned that he could not examine the quality of the educational system in the country because there is no adequate statistical description of the population. The only available statistics gave some insight into the quality of education and were concerned with the relationship between the number of students, classes, and teachers. However, he concluded that the government should put much emphasis on primary school teachers.[18] Also, he noted that:

> Distribution of enrollment by college shows that the Kingdom's higher education is geared to the development effort. There can be no doubt that economics, science, engineering and education are crucial areas in which manpower requirements have to be met.[19]

Abujoball studied the manpower needs in agriculture in the Eastern Province of the Kingdom. These needs were largely for professional agriculturalists but do not include farm managers and farm laborers. He tried to suggest procedure for an improvement to meet manpower needs in agriculture untill the end of the 20th Century.[20] In his recommendations he emphasized the importance of education; elementary, secondary, college, and higher education, as well as adult education. However, in his study there are no specified numbers in any certain level of education have been given except the 1978 number of workers in some agricultural positions in the area of study, as well as the percentage of increase or decrease in numbers of workers. It is worthwhile to note, however, from his study that there is an extremely wide range of responses. This extreme range can be found among Saudis themselves, as well as among Saudis and non-Saudis.

National Planning and Human Resources

Development Concepts

Development is not just a matter of educational achievement. Education cannot be a goal by itself. It must be understood as a tool, an instrument for particular goals. The writer believes that development is an accomplishment at a certain rate of an individual in social, political and economical aspects.

Development cannot be measured only by the number of industries, the length of road, networks, or the width of communication networks, tall office buildings, houses, the amounts of money allocated for certain projects, etc. Time must also be considered as a basic element in comprehensive development. However, in most developing countries, this is not taken into account, especially in connection with those countries which have become rich overnight. In respect to technical education, it will be easy for any rich developing country to build a new modern school with excellent facilities and equipment, but it will not be easy to operate these facilities properly or to use the institution constructively.

Abu-Rokba stated that:

> Development should be associated with certain requirements to be sustained. . .
> 1. The political and social environment should be able to provide economy with many of the ideas, knowledge, and institutions essential to efficient functioning. Besides all that, the system should be rewarding, encouraging and receptive to new ideas.
> 2. The bulk of the material progress achieved should be the result of the performance of the community, not of the foreign enterprises, and
> 3. Technological and other changes should continue in order to enable the economy to sustain the rise in the rate of growth.[21]

Human resources and manpower development have been considered as the basic elements of any nation's growth and development. Some political leaders have considered human resources as a major factor in their nation's growth.

In his First Manpower Report of 1963, John F. Kennedy, the late President of the United States, stated:

> Manpower is the basic resource. It is the indispensible means of converting other resources to mankind's use and benefit. How well we develop and employ human skills is fundamental in deciding how much we will accomplish as a nation. The manner in which we do so will, moreover, profoundly determine the kind of nation we become.[22]

The late Lyndon B. Johnson, the U. S. President who followed former President Kennedy, in his annual manpower report, stressed the role of people in United States' national development and strength. He said, "This nation is prosperous, strong, materially richer than any in history -- largely because of the knowledge, skills, competence, and creativity of our people."[23]

Former King Faisal, in his opening address at one of the Saudi Vocational Training Schools, said:

> This country, (the Kingdom of Saudi Arabia) in this particular stage of its development, is in greater need of adopting the vocational trend, because the implementation and carrying on of projects requires manpower, and that should only be insured from the country's own sons.[24]

On another occasion King Faisal said, "While we can import factories and equipment, our real needs are to train the local human element to use the equipment."[25]

Prince Fahd bin Abdul Aziz stated that:

> We want to see the development of our country and people, but a development based on our heritage and values, and the belief that we value and take pride in it. We refuse to allow the light of electricity to come at the expenses of the light of belief; we refuse to see progress achieved at the expense of our heritage and moral fibre, for then it is not progress but deterioration . . . we want to accomplish progress without loss.[26]

All of those are well prepared statements, however, the rapid movement in almost every direction in developing countries has not been going step by step with that; those are still considerable theoretical ideas.

Education and Human Resources Development

There is an understanding among planners, administrators, sociologists, educators and economists of the significant role that technical education and vocational training play in terms of economic and social development. Usually a socially and economically underdeveloped area is one which is deficient in education and training opportunities. This consequently leads to a high level of unemployment and low wage scale. Many studies indicate that a higher level of education demands a higher level of salary. The better one's education, the better one's chances are for obtaining and keeping his job.

Mannahiem stated that, "The modern school has no choice but to intensify and broaden its contacts with other areas of life and social institutions."[27]

In economic terms manpower programs are one of the most useful instruments for raising the employment rate and changing income

distribution. While many economists deal with human resources in terms of economic concept, others feel that human resource cannot be taken only from that point of view. According to Mannaheim:

> It is incorrect, for example, to assume that the central purpose of human resources development is to increase the worker's contribution to the production of goods and service. An increase in income or productivity should not be used as the only criteria for the effectiveness of human resources development.[28]

In the United States, the National Manpower Council has stated that:

> Manpower resources differ fundamentally from other economic resources . . . Knowledge and skills may be figuratively described as constituting a kind of human capital . . . human beings are not "utilized" . . . nor are their skills consumed . . . in the same sense as a ton of steel, a bushel of wheat, or a pair of shoes.[29]

Some late editors stressed the effect of education on social and individual development:

> In whatever directions we look, we find that education is a powerful means of social process. Anyone working with it is working with probably the most powerful instrument man has yet devised for his own improvement. Thus, one of the most important purposes of education is to raise the people's awareness about themselves and their societies in order to go forward to a better life. That will reflect the impact of the individual on societal improvement to economic development.[30]

According to Gunnar, some scholars identify the purpose of education as the rationalization or attitudes, as well as the impact, of knowledge and skills.[31] This would include economic, social, and individual aspects. From this point Saudi planners should consider all these aspects. In Saudi Arabia, with its strong Islamic background,

education and training should prepare the people not only for industry, but also for life. A job is a way of life, not only for the worker, but also for the children, friends, family and society in general.

The educational policy in the Kingdom, however, considers the purpose of education as a central element of a developing country, socially, economically and culturally. The Educational Policy in the Saudi Arabian Kingdom stated that:

> The purpose of education is to furnish the student with the values, teachings and ideals of Islam, to equip him with the various skills and knowledge, to develop his conduct in a constructive direction, to develop the society economically, socially, and culturally, and to prepare the individual to become a useful member in the building of his community.[32]

Industrialization and Human Resources Development

There is a close relationship between industrialization and human resources development. They are linked because industrialization shapes people to its own requirements. Industry needs a wide range of professional, managerial and technical personnel which must be distributed among and provided by nations and/or regions or the working population according to Levitan.[33] This need can be met only by developing proper skills at the proper levels of education and training. However, proper levels of education are connected in some way to a country's economic level and to its stage of development. For example, considering Harbison and Myers stages of development, human resources development stages must differ from one to the others.

According to Harbison and Myers, in the first stage (in underdeveloped countries) where a primary industry is concerned, the primary education is usuually an important human resource developmental goal.

In the second stage (in partially developed countries) where the building of a base industry is concerned, secondary education, especially in science and mathematics, must be considered as a primary source for providing industries with skilled workers and technicians, as they are needed.

In the third stage (in semi-advanced countries) where rapid industrialization exists, vocational and adult education as well as higher education must be considered as human resources development goals to match adults with the new job requirements and to keep up with science and the technological world.

In the last and fourth stage (in advanced countries) where there is a rapid movement in science and technology, the post-graduate level must be considered in the way of innovations and knowledge explosions, in order to provide the economy with a rapid growth, and to maintain, adjust and promote productivity and quality in the country's economy and individual life.[34]

In terms of productivity and economic development, by matching people and jobs, manpower programs can increase individual and national productivity by helping people be more productive. Therefore, human resources development strategy must concern itself with programs to eliminate barriers to personal improvement that are not related to productivity.[35]

Also according to Levitan, for building an industrial labor force some investigators identify four interrelated processes.

They are:

1. Recruitment which can be done by compulsory or voluntary means.
2. Commitment which can take place in four stages - The uncommitted worker, the partially committed worker, the generally committed worker, and the specially committed workers, according to the economic stages and environmental factors.
3. Advancement, which can be concerned with developing skills and attitudes toward industrial production, and
4. Maintenance of welfare and security of the population.[36]

Technical education and vocational training programs must keep up with today's technology and industrial needs. Today's industry is in a rapid change, and skills training programs must be connected in some way or the other with the industrial requirements in terms of kinds of skills and quality of levels. Tuttle and Alexander stressed that the difference between industrial training needs and types of training needs must be recognized and considered. They stated that:

> Differentials in Industrial Training needs must be recognized. At least two types of training needs must be considered. These two types are: (1) Training of an initial labor force for start-up of new or expanding industry and (2) subsistence training to serve trained labor needs of existing industry.[37]

On the international side, a coordinated programming of technical changes and manpower adjustments in eight countries has been investigated by the Manpower and Social Affairs Committee (France) in the series "Industrial Relations Aspects of Manpower Policy." According to the findings of this study:

> The planning and introduction of new investments and the implementation of changes in production and operations can be coordinated with the programming for the adjustment and recruitment of manpower in an enterprise, with benefit of both to the latter and its employees without interference or costly adaptations to the programs of business changes. Moreover, while

> medium and long-term planning of manpower operations are feasible, the administrators should retain the possibilities of adapting them to new developments and operating needs. Such flexibility will be facilitated by long-term planning and careful study in defining objectives and alternative tools, techniques and procedures.[38]

To give some examples of utilizing human resources in economic industrial development and social changes, the Soviet Union, Uzbekistan and Japan plans for education are worth noting.

> An extensive network of secondary level Technical and Vocational Schools has made Soviet education the most exclusive channel for specialized training, as compared to the considerable variety of social means.[39]

Uzbekistan during its period of industrialization (1928-1958) is one example of educational investment. Twenty-one percent of the country's expenditures were allocated to education and related forms. In 1940 the percentage increased to over 40%. The result was that almost 7% of the age group was enrolled as first-year students in higher school in 1958, compared to 4% in Britain and Germany.

Uzbekistan is one example of the extensive Soviet regime for social change in Central Asia which has Islamic background.

Japan too, is one of the best examples in the world for achieving its industrial and economic development within its population; education was and still is the primary resource for Japan and Japanese development. Almost every Japanese has nine years of compulsory education. This comprises six years of primary education and three years of lower secondary education. The upper-secondary is comprised of three types of education; General Education, Vocational Education

and both Vocational and General Education. By extensive educational programs for industrialization, Japan dropped agriculture workers during the 5-year period (1969-1975) from 19.1 percent to 12.8 percent.[40]

Manpower Planning and Policy

Manpower development is multi-purposed.

1. It leads to advance in general levels of literacy within the population;
2. It contributes economically to developing the skills and achievement of the labor force of the Kingdom.

Solutions of manpower problems will require programs with approaches based upon sound analysis and understanding of the labor markets.

Without that, it would be impossible to take into consideration both short and long range labor market requirements upon which successful manpower development programs must be reconstructed.

Staley considered that technical education and training planners must plan in all stages. He stated:

> The action which is essential in the immediate future, the action which will last some years, such as the extension of primary education to all sectors of the community; and long-term action which may last a generation and depend on the steps taken in the immediate and long-term period.[41]

Ingram indicated four factors to be considered in active manpower policy: They are: (1) The provision for improved manpower demand and supply information for individuals, employers, and government agencies; (2) The development of manpower supply through education, training, retraining and rehabilitation; (3) The matching of men to

jobs through an effective employment service; income maintenance, job development and mobility; and (4) the development of manpower standards.[42]

Chirikos looked at manpower planning from another angle. He stated four points to be included in any manpower planning. They are concerned with productivity, manpower needed, input into programs needed, and overall cost. The four points are as follows:

1. Determine the required future productivity.
2. Determine the manpower needed to generate that level of productivity.
3. Determine the input into education needed to prepare the required manpower, and
4. Determine the overall costs of this input to yield an estimater of financial resources required for educational structure.[43]

Technology

Technology has changed many concepts of work. Work originally was dependent upon man's muscle and brain. But work now depends upon mechanical power. Work was formerly dependent upon the number of workers, but it is now dependent upon the quality of workers. The nature of work has been changed from manual to cognitive. For developed countries, and many developing countries, the shift from blue-collar workers to white-collar workers is showing in many labor studies. This could mean that people now depend upon machines to do their work.

For developing countries this transferring technology should be taken into consideration.

Transferring technology is not a matter of importing materials. It is a selective alternative on one hand, and a changing attitude of the people toward technological idealogy, technological adjustments, and the transfer of the worker to the technological environment on the other hand. We must, therefore, transfer people to the technological world at the same time that we concern ourselves with bringing technological instruments to the people. Thus people must be oriented to a technological world and a development plan. If this has not been done or taken into consideration in any developmental plan, it could only add more problems. Technology could hold a great deal once we know how to use it. According to the Computer Programs Director at the Institute of Public Administration, today there are at least 64 computers in the public and private sectors in the Kingdom of Saudi Arabia between that one of the medium or large size. One of them is in the possession of Aramco, and is considered to be the largest in the Middle East. According to him, there is no coordination between these computer centers.[44] Most of the workers are trained in the U. S. and Europe. They spend almost one year learning English and two months studying within their specialized fields. However, most of their work, after they return to the Kingdom, is performed in the Arabic language.

To give an example of the number of workers which are needed: The Ministry of the Interior has started a computer project with the beginning of the second development plan. Two hundred Saudi trainees

have been sent to the United States, 36 others, besides undefined numbers of officers and civil workers will be sent for training.[45] However, technical education did nothing for these needs except for a small proportion of its commercial curriculum. The Institute of Public Administration does have one computer program and a plan which includes computer studies in a variety of the institute's programs.

Problems Related to Human Resources and Manpower Development in the Kingdom

Underutilization

Planning, organization and follow-up departments are some of the most important departments to give special attention in the Kingdom because of their influence in guiding and leading down the road of development. However, these departments are most often filled by persons who do not meet the requirements. Dr. Tawail, the Director of the Institute of Public Administration in Saudi Arabia states:

> Due to the lack of a sufficient number of qualified personnel in the field or organization and management, many vacancies in this land are filled by persons who do not meet the requirements of those jobs, especially those in planning, organization and follow-up.[46]

Besides that, there is underutilization of manpower. Dr. Tawail stated that the underutilization of human resources in the Kingdom is due to three factors. These are: 1) ineffective use of specialized staff, because there are many specialized persons placed in unrelated jobs. As a result we find that many specialists in the professional fields are occupying administrative positions that have nothing to

do with their field of competence.[47] 2) Hidden unemployment. That is "aggravated by an inefficient supervisor at the middle management level, lack of periodical administrative reviews, and by lengthy and complicated work routines."[48] 3) Underutilization of female workers. He mentioned that the number of Saudi females has increased in the field of education, nursing, and social research, but that because of the limitations of women's opportunities to serve in other administrative work in some other field of specilization "that suit women in accordance to Islamic traditions".[49]

A closer investigation indicates, however, that underutilization can be due to the scarcity of administrative institutions. Many of Islamic law, Arabic language, and Art graduates are taking positions in administrative work which they have not been prepared for. The Institute of Public Administration tries to support and enrich those graduates, and also meet requirements, in order to shift some of them to related jobs. However, in a systematic way this can be considered as a waste of time and money. A situation like this should be avoided in overall planning.

The first five-year plan has shown that most of the vocational graduates were not utilizing their acquired vocational skills. According to the Central Planning Organization information, the percentage of those who have not utilized their vocational skills is shown at between 45-65 percent.[50]

Insufficient Information

According to the Central Department of Statistics, the first statistical department was established in 1960. The Central Department

of Statistics (CDS) conducted the 1974 census. Until today, the middle of 1979, the CDS has not assembled the details needed from the census for human resources and manpower development. That may be due to the inefficient situation which the CDS endures. Many positions in this department are vacant, and have been for a long time. Because the CDS cannot provide the statistical information needed, there are some duplications among departments and agencies which are concerned with manpower development and the labor market according to Ministry of Planning information.

Expenditures, Wages and Cost of Living

There was a tremendous expenditure during the first Five-Year Plan (1970-1975), which was considered with the capacity of the country's population. The second Five-Year Plan showed that the budget of the second plan increased nine times while manpower in the second plan was projected to increase annually by 8.9% compared to 6.6% obtained by the first plan.[51] Many of the planned projects have been carried out by the private sector; therefore, many of the government employees went out to find jobs in the private sector because they were much better paid in that area, especially with the rapid increase in the cost of living. The civil Service Bureau indicated that in 1977 there were 6,516 employees who had been appointed while 6,338 had left their jobs in that same year. The number of jobs totaled 188,288. There were 88,070 jobs filled by Saudis, 31,497 were filled by non-Saudis, and the rest, 68,722 were vacant.[52]

Figure 1 illustrates the number of Saudis, Non-Saudis and the number of jobs vacant during 1970-71 till 1976-77. During this period

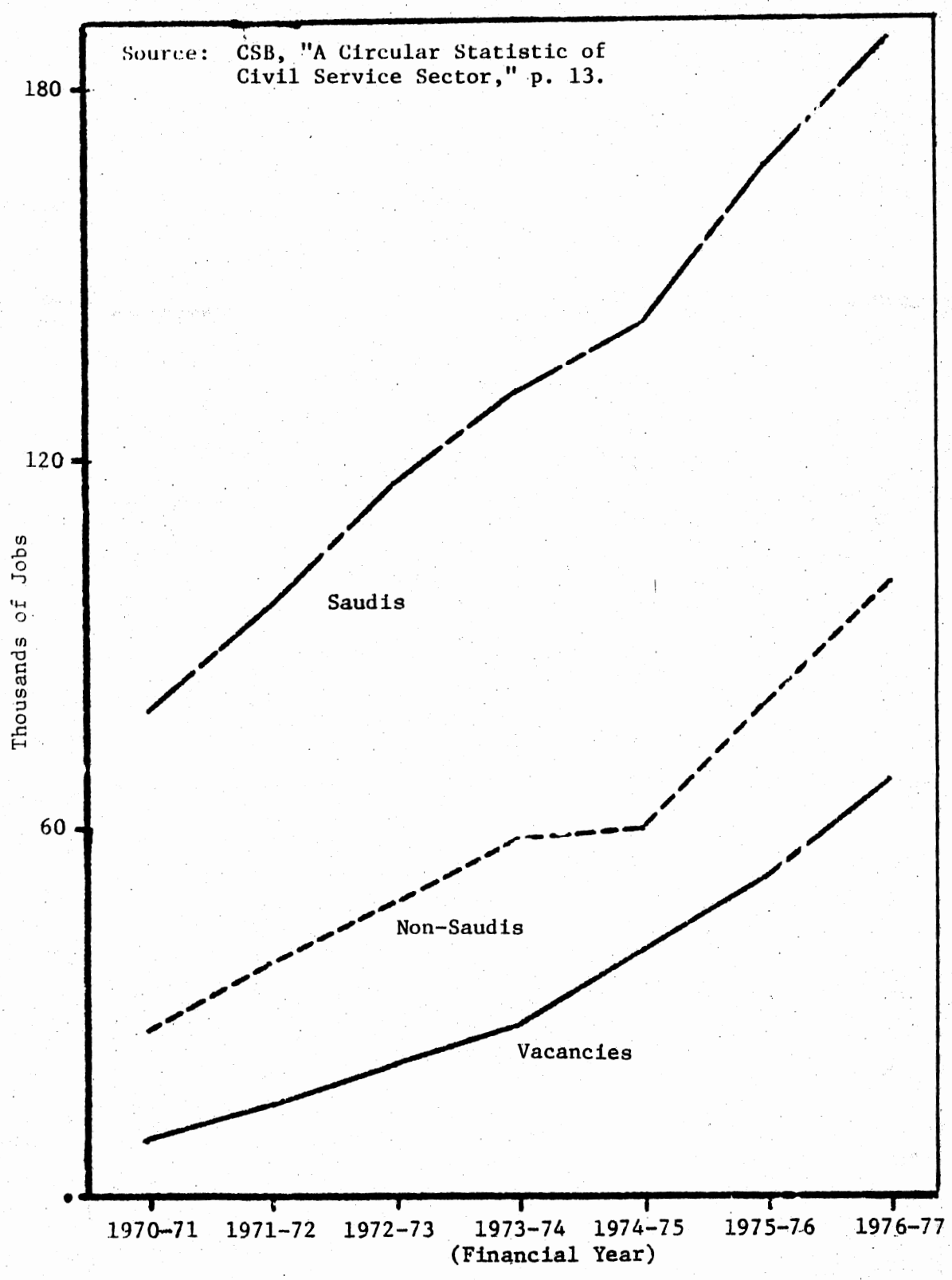


Figure 1. Saudis, Non-Saudis and Job Vacancies in the Public Sector from 1970-71 till 1976-77

Saudi employees increased by 75.5% and job vacancies increased between 29% and 72.6% while the number of jobs increased by 120.9%.

Government employees may prefer working in the private sector which has no set pay scale and where their activities can be considered. Table I shows weekly mean-average wages in the private sector in three mean cities: i.e., Jeddah, Riyadh and Dammam in January, 1976, and in January, 1977, which are catagorized by level of education. This table indicates that firm agreement exists in terms of raising wages between January, 1976, and January, 1977. But there is a difference among these three cities while the cost of living is almost the same in each of them. For example in January, 1976, the mean average of wages paid in Dammam was higher than it was in Riyadh or Jeddah for intermediate level employees, and below, but in January, 1977, this mean-average of intermediate level in Jeddah and Riyadh was higher than in Dammam. Other features seem to indicate that those who have university level education and above were paid higher wages in Riyadh and Jeddah than those people on the same level were paid in Dammam. However, the cost of living could be considered as one of the main reasons for seeking a job outside of the government pay scale control.

Table II indicates the cost of living in urban areas in 1975, which contained a portion of the last year of the first Five-Year Plan period, had increased by almost 208%, and by almost 300% by the end of 1978, in relation to the 1970 cost of living. However, the government wage increase never reached these percentages. Table III indicates the monthly payment wage of government employees. This is the latest government pay scale for civilian workers. It is worthwhile

TABLE I

WEEKLY MEAN-AVERAGE WAGES IN S.R.* IN PRIVATE SECTOR BY EDUCATIONAL LEVEL IN THREE MAJOR CITIES IN THE KINGDOM

Educational Level	Mean Average Wages in January, 1976			Mean Average Wages in January, 1977					
	Jeddah	Riyadh	Damman	Jeddah	Pct. Change	Riyadh	Pct. Change	Dammam	Pct. Change
Illiterate	197.9	224.1	261.1	270.1	+36	299.2	+34	318.5	+22
Able to Read and Write	259.1	279.0	305.8	354.8	+37	409.1	+47	357.9	+17
Primary	302.6	290.2	331.3	406.3	+34	396.2	+37	412.1	+24
Intermediate	434.4	387.4	440.4	539.5	+24	536.9	+39	516.9	+17
Secondary	678.3	535.1	567.6	451.1	-33	695.5	+30	695.7	+23
University and Above	1,143.3	1,142.5	942.9	1,288.8	+13	536.1	+34	155.1	+23

Source of Basic Data: Central Department of Statistics, Employment and Wage Level Statistics in Private Establishments, "Sample Survey." pp. 25, 49, 73.

* 3.35 Saudi Riyals = 1 U.S. Dollar

TABLE II

COST OF LIVING INDEX FOR URBAN HOUSEHOLDS IN THE INCOME GROUP SR* 600 TO SR 899 PER MONTH
1970 = 100

Year		Food	Housing	Clothing and Footwear	Miscel-laneous	General Index
		52.19%	24.88%	6.58%	16.35%	100%
1975	1st Qt.	159.86	290.33	144.47	160.25	191.37
	2nd Qt.	171.02	334.74	152.67	154.04	207.79
	3rd Qt.	171.34	334.75	157.41	152.01	207.92
	4th Qt.	181.55	371.41	165.88	153.06	223.10
	Annual	170.94	332.81	155.10	154.84	207.55
1978	1st Qt.	246.84	493.37	223.56	214.96	301.43
	2nd Qt.	237.89	451.30	239.64	238.49	291.20
	3rd Qt.	249.21	447.92	242.62	245.69	297.64
	4th Qt.	260.79	448.96	243.56	266.14	307.34
	Annual	248.68	460.39	237.34	241.32	299.40

Source: Central Department of Statistics, Cost of Living Index, January 3, 1979.

* 3.35 Saudi Riyals = 1 U. S. Dollar

TABLE III

PRESENT MONTHLY PAY SCALE OF CIVIL EMPLOYEES IN SR*

Grade \ Step	1	2	3	4	5	6	7	8	9	10	Trans. Allow.	Annual Increment
1	1015	1115	1215	1315	1415	1515	1615	1715	1815	1915	300	100
2	1210	1330	1450	1570	1690	1810	1930	2050	2170	2250	300	120
3	1455	1595	1735	1875	2015	2155	2235	2435	2575	2715	300	140
4	1750	1920	2090	2260	2430	2600	2770	2940	3110	3280	300	170
5	2100	2300	2500	2700	2900	3100	3300	3500	3700	3900	320	200
6	2512	2745	2975	3205	3435	3665	3985	4125	4355	4585	350	230
7	2970	3240	3510	3780	4050	4320	4590	4760	5130	5400	400	270
8	3485	3795	4105	4415	4725	5035	5345	5655	5965	6275	400	310
9	4110	4460	4810	4860	5510	5860	6210	6560	6910	7260	500	350
10	4800	8180	5560	5940	6320	6700	7080	7460	7840	8220	500	380
11	5600	6000	6400	6800	7200	7600	8000	8400	8800	9200	500	400

TABLE III (Continued)

Grade \ Step	1	2	3	4	5	6	7	8	9	10	Trans. Allow.	Annual Increment
12	6290	6820	7250	7680	8110	8540	8970	9400	9830	10260	550	430
13	7200	7650	8100	8550	9000	9450	9900	10350	10800	11250	550	450
14	8020	8520	9020	9520	10020	10520	11020	11520	12020	12520	600	500
15	9255	9805	10355	10905	11455	12005	12555	13105	13655	14205		550

Source: Civil Service Bureau

* 3.35 Saudi Riyals = 1 U. S. Dollar

that all graduates of secondary technical education, industrial, commercial and agriculture, are placed at the first step of the 5th grade. Intermediate Nursing School graduates (for girls) are placed in the same catagory, while the graduates of general secondary school and of health institutions (for boys) are placed in the 4th grade. Thus, the needs for particular types of skills or for promoting women for some type of education or training plays an important role in determining pay scales in Saudi Arabia. Also, note that the level of education, training, and seniority are the major factors in determining promotion of the kind that can provide employees with better grade on the government pay scale.

The promotion grade system (Table IV) considers training as the most important factor for employees in Grade 5 and below (no one having a bachelor's degree). The efficiency report which can be an evaluation of productivity has the least portion of points for all grades. According to Levitan, Mangum and Marshall, this is one of the common features of developing countries. They stated that:

> In developed countries wages are usually directly related to productivity; in developing countries this is rare. In Egypt, for example, . . . wages are determined by seniority and educational certificates regardless of performance, productivity deteriorates.[54]

This can be due to the absence of unbiased evaluation and administrative conscientiousness.

Lack of Cooperation and Coordination

According to the actual situation of Manpower Developments Department, lack of cooperation and coordination among most of the manpower

TABLE IV

PROMOTION GRADE SYSTEM

Factor	Points			
Training	20	Grades 1-5	15	Grades 6-10
Education	10		15	
Seniority	10			
Efficiency Reports				
Good	3			
Satisfactory	1			

Source: Civil Service Bureau

development department agencies on one hand, and between them and manpower education and training program on the other hand, is one of the major problems facing human resources and manpower development in the Kingdom. Coordination is almost non-existent between educational and training programs. The responsibility of education and training is distributed among a variety of ministries and government agencies. Table V shows the variety of ministries and government agencies responsible for technical training. The responsibility of planning human resource and manpower development is distributed among The Ministry of Planning (MOP); Ministry of Labor and Social Affairs (MLSA); Civil Service Bureau (CSB) and The Saudi Arabian National Center for Science and Technology (SANCST).

The Ministry of Planning has three departments: 1) The Labor Force Department, 2) Human preparation Department and 3) The Manpower Department.

The Ministry of Labor and Social Affairs has one department: The General Department of Labor Force. According to MLSA information, its responsibilities are to appoint and develop the national labor force.[55]

The Civil Service Bureau Organization Chart contains one department concerned with manpower development. It is the Planning and Labor Forces Department. According to the head of this department, the responsibility of Planning and Labor Forces Department is to carry out research and studies concerning the government employees' training, and the evaluation of training programs for the government employees inside the Kingdom, as well as abroad.[56]

The Saudi Arabian National Center for Science and Technology is considered to be the central organization for the development and coordination of science and technological program in the Kingdom according to the SANCST Program Announcement.[57] SANCST, which was established in 1977 as an independent agency, is concerned with scientific and technological manpower. One of its functions is to:

> Establish and manage an information center which collects and disseminates data on the scientific and technological manpower resources in the Kingdom in order to utilize this labor force in implementing scientific and technological development policies.[58]

One of the SANCST four departments is the Human Resource Department. The responsibility of this department is to "plant" scientific and technological thinking into Saudi society. However, none of the positions in this department have been filled as yet according to SANCST information.

Besides all of these responsible agencies there are numbers of boards and committees concerned with human resources and manpower development in the Kingdom according to Al-Hammad investigation.[59] These committees and boards are:

1. The Supreme Educational Board under the presidency of the Deputy of Prime Minister and Membership of the Ministry of Information, and all the major ministries and departments concerned with education.
2. The Supreme Manpower Board under the Minister of Finance and National Economy and membership of the president of Central Planning Organization, Ministery of Education, Health and Labor and Social Affairs.

3. The Supreme Higher Education Board under the presidency of the Ministry of Higher Education, and membership of the Saudi universities and some other educators.
4. The Universities Coordination Board for the purpose of adjusting the need and capacity of different civilian and military colleges. It includes a representation of Riyadh University and the Military Colleges in Riyadh only.
5. Civil Service Board which one of its objectives is to cooperate with concerned authorities to develop Civil Service manpower and increase employees productivity through training.

All of the above ministries, centers, agencies, committees and boards are functioning at the national level for human resources and manpower development, and there is no coordination among most of them. None of the private sector agencies are included in any board or are members of any committee. The Civil Service Bureau is the only government agency included in almost all of the committees and boards and the Centeral Planning Organization (Ministry of Planning later on) in the Supreme Manpower Board.[60]

Planning Strategy and Human Resources and Manpower Development

No national planning was done in the Kingdom of Saudi Arabia until the financial crisis in the mid-1950's.[61] Al-Hammad indicated various steps have been taken up to 1973. According to him and other resources some of the steps were:

The first stage of development came into existence in the Kingdom in 1957 when the Informational Monetary Fund was asked by the Saudi Government to help in planning for economic relief. The Saudi Arabian Monetary Agency (SAMA) was responsible for this matter. SAMA has issued several recommendations concerned with the Kingdom's economic development. None of these recommendations have considered human resources as a part of the economic development, even though there is a great need. Not one word about education was mentioned.

One year later (1958) the first committee for development was appointed. This committee consisted of economic, financial and industrial personnel. It was made up of Saudis as well as foreign experts.

Two years later (1960) the government contacted the International Bank of Reconstruction and Development, asking for an indepth study concerning the Kingdom's economic development.

In 1961 the Supreme Planning Board (SPB) was established. The SPB works in economic areas. SPB members were neither concerned with education nor human resources. SPB coordinated with the Ford Foundation and other experts from the United Nations; the former has worked in the country for nine years (from 1964 - 1972). According to Tawail, Ford Foundation was made up of four members. They are: 1) Personnel Administration Group; 2) Organization and Management Group; 3) Financial Management Group, and 4) Manpower and Training Group. The objective of the Manpower and Training Group "was to assist the Institution of Public Administration in the Planning and execution of its programs, and in carrying out a study of manpower in Saudi Arabia."[62] One member of this group worked with the Institute of Public Administration for a short period from 1964 to 1965.

Four years later (1965) the SPB was replaced by the Central Planning Organization (CPO). This establishment was a result of the SPB's recommendation.[63] The major project of the CPO was the First Five-Year Plan in the Kingdom.

In 1975 The Central Planning Organization was replaced by the Ministry of Planning with the same function as CPO.[64] The Ministry of Planning coordinated its efforts with the International Bank of Reconstruction and Development (IBRD).

According to Mussa, the IBRD is concerned with manpower development in terms of forecasting and making projections. The responsibility of IBRD is to integrate the Kingdom's educational and training programs with the manpower needs in the second five-year plan which was started in 1975.[65]

Manpower Forecasting

The most popular approach in educational planning in terms of economic objective is the manpower forecasting system. The other two are the rate of return analysis and individual demand approach. The manpower forecasting is based on employers demand. Then, educational planning from the manpower forecasting point of view, must be built in terms of levels and kinds of programs required to achieve certain economic growth targets.

According to Ahamad and Blauge, manpower forecasting can be based on a three dimentional terminal of time: long-term, medium-term, and short-term.

There is a basic need for the forecasting of the manpower requirement for a long-time period to determine the tendency of educational programs in the long run. That will help educational planners in forming new educational training and improvement of facilities. It will also help students in choosing their careers. Early choice of a career will help solve the current demand for skilled technical workers. In technical education there is a necessity for long-term planning to solve the manpower shortage in general, and especially in industrial and technological areas for many changes have occurred. Ahamad and Blaugs stated that:

> . . . for the efficient investment planning, firms ought to be interested in the manpower demand and supply situation, not only when new equipment is installed, but over the lifetime of the equipment. If this is so, long-term manpower forecasts clearly form one of the prerequisites of efficient decision-making.[66]

Medium- and short-term manpower forecasts must also be considered to adjust planning with the actual situation and to catch up with the rapid technological changes. This is because being able to forecast the need for goods and services of the world which affects prices, etc., also enables one to forecast the supply and availability, which in turn enables the forecasting of population growth, employment rate, educational capacity, cost and wages and salaries. Of course there will be some errors in forecasting the manpower requirement over a long-time period because of the uncertainty of the future, and whatever planning is done, this factor would have to be considered. However, as Ahamad

and Blaugs stated, ". . . manpower forecasting should be long-term to be really useful for educational decisions, but unfortunately, highly accurate forecasting is only possible in the short- or medium-term."[67] However, in employability and training terms, there are some other ways of forecasting manpower. Some of them are called: projection models, paradigm models, input-output models, and system models.

The Occupational Training Information System (OTIS) is a system model. It is the most beneficial for education programming as well as for individual career decisions. OTIS is one of the best ways for short-run planning. The OTIS project as it is used in the United States of America combines the demand side as well as the supply side of manpower in each cluster of jobs. It can be used for statewide or regional planning. It attempts to promote industrial development and to assist in developing a labor force as an integral part of economic development.[68]

Regarding the lack of information about matching the demand side to the supply side in technical manpower and education programs, OTIS would be one of the best systems to observe in matching and planning the two sides. This project could provide an excellent indicator for how the two sides work and keep up-to-date with technological and social change. OTIS can be used to determine the following:

1. To follow up the development of supply and demand on a yearly basis.
2. To determine the upgrading of some educational programs.
3. To omit or reconcile some educational programs.
4. To promote and enhance people to consider some specific jobs.

5. To have a better use of human utilization.
6. To correct and redirect every movement in human capital to reach the human resource development.

The Possibility of Using OTIS in Saudi Arabia

Lack of information is one of the characteristics of an underdeveloped country. Saudi Arabia is deeply in need of practical information system for educational planning. At present, Saudi Arabia has no Occupational Information System. There is no systematic way of providing technical education and vocational training. There is no adequate data for expanding existing programs, nor planning for new programs. There is a need for accurate occupational information. This information must be collected in a way as to be useful and meaningful. This system must contain accurate information concerning students' enrollments, teachers, manpower needs, graduates, occupational requirements, and programs (their location and availability). This system could be called Saudi Occupational Training Information System (SOTIS). It could be the first step in planning for a systematic technical education and vocational training programs in the Kingdom of Saudi Arabia. If SOTIS is to be applied, it should be formed to provide the following data:

1. Demand side including job opportunities by occupational sector as well as province regions.

2. Supply side including number of students enrolled and to be graduated by occupational sector and educational and training level.
3. Student side including age, grade, sex, and socio-economic status.
4. Placement and follow-up of graduates to show their employment status.

These basic data are to be obtained annually including present status, the actual number, and projected number for the future planning.

A program similar to this has been implemented in the State of Oklahoma as well as in several other states in the United States of America. This system provides annual update of supply and demand for vocational and technical students who are trained individuals, and from this the demand can easily be determined. It will also facilitate decision-making about programs and priorities. According to OTIS,

> The difference between the number of jobs available and the actual supply of graduates represents the number of individuals needed above the estimated supply. The program priorities are established according to the net demand.[69]

This system will give the educational planners the best indication about how to match supply side with the demand side. And this too, will provide the planner with precise annual follow-up which will enable them to review and reevaluate a country's development programs. It will also provide a guide for reorganizing and relocating some educational programs overall. This system can be described as a key for decision-makers to evaluate a country's program development in process.

Islam Effects and Its Concept of Knowledge and Work

Saudi Arabia has a great respect among Islamic countries because of its traditional responsibility to Mecca and Madinah, and their holy places and mosques. The people in the Kingdom have a strong Islamic background; this important fact is a basic element to be considered in any national development plan in the Kingdom. The most important side of Islamic thought, however, in this area, is the Islamic concept of knowledge and work, because it is through these two areas the important developments of Kingdom may be achieved. Knowledge and work are considered the two major elements in making up the Muslim personality and Muslim society. Islam encourages work and urges people to seek knowledge from the cradle to the grave. Moreover, Islam considers the seeking of knowledge as a form of God's worship. From this point the Holy Quran fights ignorance and illiteracy. ". . . are they equal -- those who know and those who know not! Only men possessed of minds remember."[70] God wants people to use their minds in order that they may be accountable and fulfill their responsibilities for both themselves and for their communities. ". . . God will raise up in rank those of you who believe and have been given knowledge."[71]

"Read" was the first word sent down from God to His last prophet, Muhammad, (Prayer of God and peace be upon Him). "Read: In the name of thy Lord who createth, createth man from clot. Read and thy Lord is the most bounteous. Who teacheth by the pen, teacheth man that which he knew not."[72] These five verses were the first verses of

the Holy Quran to be revealed by Gabriel (Peace be upon him). And as we see in these verses, besides God's order for Muhammad to read, God identified Himself as creator and Instructor. He describes man as a clot creature. However, when man thinks he has all knowledge he is apt to think he is above reproach. In the next three verses of Surah 96 God mentions one situation and reminds mankind whom he will return to in the Day of Judgment: "Nay, but verily man is rebellious. That he thinketh himself independent! Lo! Unto thy Lord is the return."[73] Thus man in his work, whatever his position or occupation, must seek to please God, and to benefit the people in the way given by Allah. For example, in the field of science and technology, man should deal with the advantageous side. Man's mind, time and muscle is power which must be used in terms of understanding the universe and the value of mankind. Consequently, people's action must be in the right way for the right reason.

Strong honest workers are the best to be hired according to the Holy Quran: "The best of whom you hire is the strong and the honest."[74] Perfect work is the best work to be done to please God. Muhammad (Prayer of God, and peace be upon him) said (which can be translated) "It is God's pleasure for any one of you who attempts to do some work to do it perfectly."[75]

However, from the Islam concept of knowledge and work position, man cannot be the ultimate authority in the universe, because he is only one instrument of it, playing the role designed for him by the Almighty. Therefore, work must be done for the purpose of pleasing God who is the creator, manager, and organizer of the universe.

Work is one's accountability and responsibility to God, His Prophet, and all believers. "You work, (righteousness), God, His Apostle and The Believers will observe your work."[76] Therefore, planning for human resources development in the Kingdom must be given extensive thought and consideration. In order to build a strong society and personality with the concrete Islamic concept of God, the Universe, and life, a comprehensive development ought to be considered in order to avoid the possible crumbling, dispersion and conflict which might occur in a developing situation.

A Brief Look at the Saudi Educational System and History

Religion and family were the first two resources to require the start of education in Saudi Arabia. Sons usually received their vocational education from their fathers and mothers. Formal education may be acquired at Alkuttab which ususally teaches the Islamic religion. This school can be compared to the ones teaching the three R's in the West. Modern elementary schools were established first in the Western Province. For example, according to Abdel Wasie, Alfalah School was established in Jeddah in 1903.[77] It was, and still is, a private school. Al-Hammad indicated that the country established its first General Directrate of Education in 1926; rules and regulations of that department were not installed until 1938. It has since become the Ministry of Education (1953). A child may be enrolled in elementary school when he becomes eight years of age. Secondary school follows

Elementary, where students may attend until the age of 16. Until 1944, when the College of Sharia (Islamic Law) was established, no one could continue his/her college education within the Kingdom.[78]

Egyptian educational experts were the first to establish the new modern educational system. Their system was based on the British System which consequently left its imprint on the Saudi system.

Besides the Ministry of Education there are two other institutions which are responsible for some kinds of education in the Kingdom: 1) The General Director of Colleges and Religious Institutions (established in 1950),[79] and 2) the General Presidency of Girls' Schools (established in 1959).[80] The Ministry of Defense, besides its specialty programs, is also responsible for some boys' and girls' schools in the elementary, intermediate, and secondary stages. In 1975 a new Higher Education Ministry was created.[81]

However, Technical Education and Training programs are spread among the various ministries and governmental agencies. Training programs in the Kingdom are the responsibilities of various ministries and agencies. Table V shows the eight major ministries which have some kind of special training programs.

According to the actual situation in most of education and training programs, it is hard to realize the difference between training under these programs as compared with the education under the programs supervised by the Ministry of Education. For example, Post Institute (Ministry of Post, Telephone and Telegraph) has more than 70% of its curriculum in theoretical studies, and less than 30% in practical areas. Another example is that the Institute of Technical Assistances

TABLE V

MANPOWER TRAINING INSTITUTIONS IN SAUDI MINISTRIES

Ministry	Manpower Training Institution
Ministry of Labor and Social Affairs	Vocational Training Centers
Ministry of Agriculture and Water	Agriculture Training
Ministry of Communication	Radio and Communication Training Center
Ministry of Municipal and Rural Affairs	Institute of Technical Assistances
Ministry of Petroleum and Mineral Wealth	Center of Applied Geology
Ministry of Post, Telephone and Telegraph	Post Institute
Ministry of Health	Health Institutes
Ministry of Defense and Aviation	Technical Training Institutes

Sources: Second Development Plan and personnel interview.
Besides the above listed ministries there are three additional which are concerned with training. They are: The Saudi Arabian Monetary Agency which has a banking training center, the Institute of Public Administration, which has been established to provide training personnel for all of the government ministries and agencies, and the General Presidency of Girls' Education, which includes technical training.

(The Ministry of municipal and Rural Affairs) is carrying almost the same old program (Intermediate level) which was carried by Technical Education (The Ministry of Education) which has been considered as obsolete and ineffective.

Technical Education Programs

According to the Educational Policy in Saudi Arabian Kingdom, a high priority is given to Technical Education. The Educational Policy has the following objectives concerning Technical Education:

> The objective of technical education is to supply the Kingdom in all fields and at all levels with qualified workers who possess solid faith, sound character and ability to perform the duties entrusted to them.
>
> Concerned educational authorities look after technical and vocational education in all its forms and provide it with technical and financial support.
>
> A special plan is set up to determine the Kingdom's needs for technical labor force at various levels and forms in order to attain self-sufficiency within a period to be defined in the light of existing resources. All other resources that can operate in this field will be utilized.
>
> Technical and vocational educational curricula and plans are set up to achieve this purpose with special emphasis on flexibility and diversification to meet all needs and developments in the fields of knowledge and labor, and to acquire other skills, experiences and experiments.
>
> Concerned Government authorities shall establish necessary institutions to meet the Kingdom's needs for workers in farming, business, industry, and other fields.
>
> Concerned educational authorities shall adopt all means of encouraging students to enroll in technical and vocational training. The State shall open opportunities for graduates to work with companies, institutions, factories and installations. The concerned Ministries shall adopt the necessary measures to provide work for graduates and organize their status.[82]

The General Department of Technical Education was established in 1965, and takes full responsibility for industrial, commercial and agricultural education in the Kingdom.[83] This department, as an

extension of the Ministry of Education, is concerned with the vocational and technical education in the area. The following pages will describe the history of each of these kinds of education, which will be considered the mean measure for acquiring technical and skilled manpower. Each will be discussed in detail.

Industrial Education

According to the General Department of Technical Education, the first Department for Industrial Education in the Kingdom was established 30 years ago (1949). And, the first industrial education shcool was established in the same year in Jeddah. There were only 30 students. The later was at the intermediate level, three years after elementary school.[84] From that time until 1965, the enrollment reached 2,583. According to Alaki, during this same period the level of education has been oscillating between 3, 4, and 5 years after the elementary school. It has been considered three years until 1955, 5 years until 1961, then 4 years until 1965.[85] From 1965, the Ministry of Education decided to raise the level of industrial education to the secondary plateau, and to counsel the intermediate level graduates during a five-year period (from 1965-66 until 1969-70).

Table VI indicates the number of students in intermediate and secondary levels in both general and technical education during that period of time. This table shows that the number enrolled in intermediate technical education has declined from 2,583 to 148 (in 1969-70). Consequently the number of students in Industrial Education decreased, but the number of industrial teachers was unstable. Table VII shows

TABLE VI

NUMBER OF ENROLLMENTS IN INTERMEDIATE AND SECONDARY SCHOOL IN BOTH GENERAL AND TECHNICAL EDUCATION[a] DURING 1965/66 - 1969/70

Year	Gen. Inter.	Tech. Inter.	Gen. Sec.	Tech. Sec.
65/66	18,730	2,583	3,837	130
66/67	21,297	1,469	4,573	131
67/68	29,556	512	5,834	361
68/69	32,561	277	6,940	674
69/70	38,028	148	8,243	820

Source: Ministry of Education, Summary of the Educational Development. Riyadh, 1970, pp. 45-46.

a. Technical education included all types of technical education offered by Ministry of Education.

TABLE VII

NUMBER OF STUDENTS AND TEACHERS IN INDUSTRIAL EDUCATION DURING THE PERIOD OF 1965 UNTIL 1970 IN BOTH INTERMEDIATE AND SECONDARY LEVEL

Year	No. of Students	No. of Teachers	No. of Students Per Teacher
1965-66	1,530	284	5.39
1966-67	932	308	3.03
1967-68	543	232	2.34
1968-69	616	244	2.52
1969-70	694	266	2.61

Source of Basic Data: Ministry of Education, Summary of the Educational Development. Riyadh, 1970, p. 44.

the number of industrial students and the number of industrial teachers during the same period. However, the number of Saudi Teachers in 1965 was 95% of the total number of industrial teachers.[86]

From 1965 the Ministry of Education has implemented a new project. This project has been approved by the Council of Ministers in 1963. The most important objectives of this project are:

1. To raise the capacity of institutions of the secondary level of technical education in Riyadh, Jeddah, Al-Hoffuf and Madinah.
2. To establish three secondary education units in Abha, Taif, and Unaizah.
3. To set up two industrial institutions in Jeddah and Dammam, and
4. Preparing theoretical and practical teachers.[87]

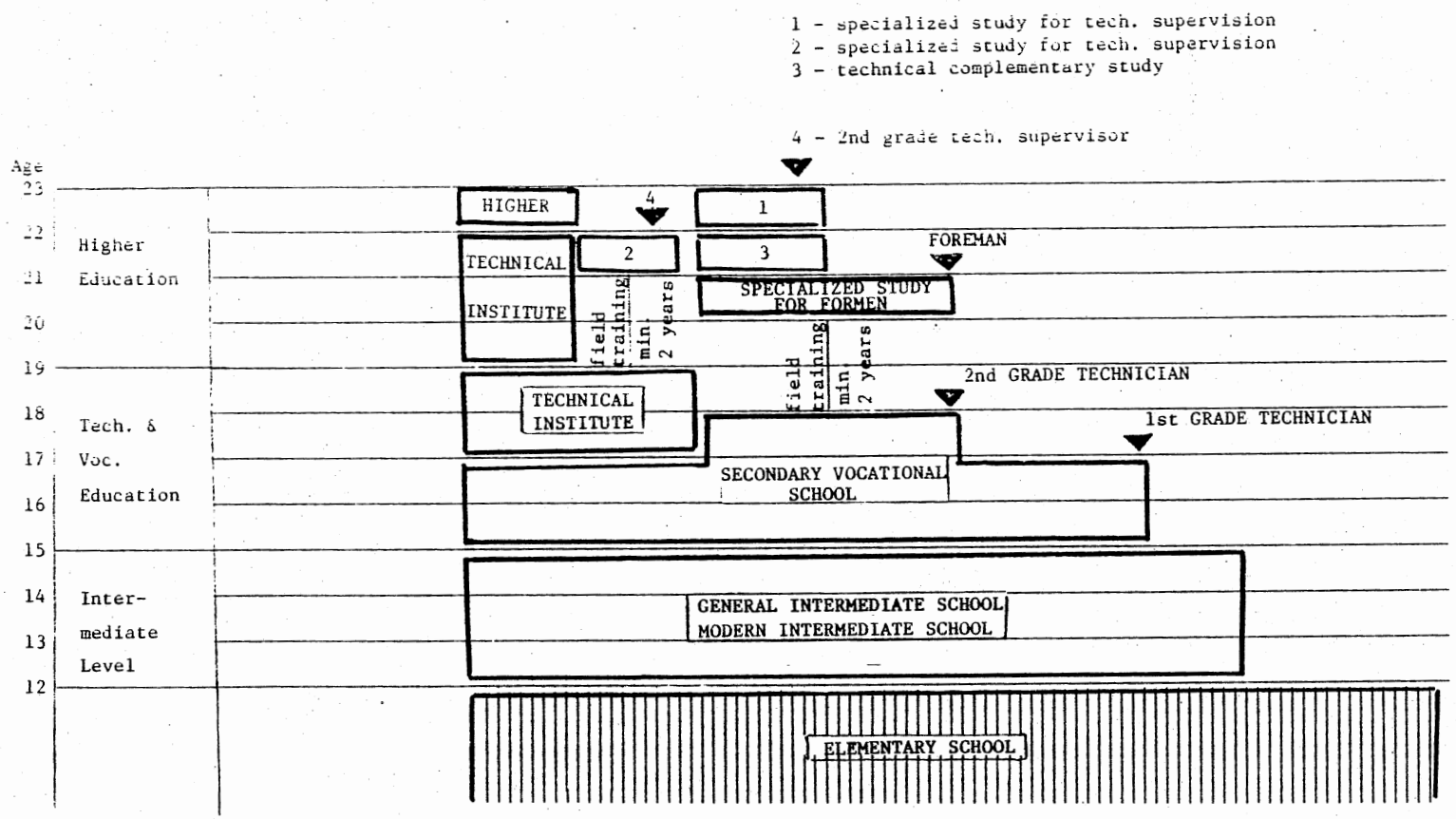
Nine years later (1973) there were two secondary schools in Madinah and Al-Hoffuf, two technical institutes in Riyadh, and Jeddah, and one high technical institute in Riyadh. This institute was opened in 1973. The first Five-Year Plan in the Kingdom was started in 1970. In this plan the high technical institute had been projected to open with 9 classrooms, enroll 124 new students, and was to have 40 teachers. By the end of the plan period, the institute had only 8 classrooms, 108 students, and 35 teachers. On the secondary level, there were 5 schools to be opened with 90 classrooms, 2,160 students and 273 teachers. By the end of the plan period the following percentages had been obtained: 100% for School, 83.1% for classrooms, 70.8% for students and 115% for teachers. It is worthwhile to note that while the number of students decreased, the number of teachers increased.[88] There is no systematic

yearly record available regarding the first plan.

For the first five-year plan the General Department of Technical Education suggested 9 points to be considered according to Al-Mutaba Kani. Firm objectives of the Technical Education plan during the first five years were:

1. To improve the quality of student.
2. Increase the quantity of students.
3. Base the curriculum on technological change.
4. Provide graduates with full opportunities and options to continue their education. (Figure 2 illustrates the Open system as it has been suggested.)
5. Provide graduates with the opportunity of furthering their education in their chosen fields.
6. Establishment of a technical school system must be based on educational training as well as industrial productivity.
7. Encouraging the concept of respect for vocational and manual work and a place for those workers in society's development.
8. Widespread vocational schools and centers in the Kingdom's villages for participation and the stopping of internal immigration.
9. Follow-up for graduates in order to provide them, as well as small industry, with counseling and guidance for the purpose of establishing vocational cooperative associations.[89]

However, in a practical way, almost none of these objectives have been achieved within the first five-year period. Some of their objectives cannot be achieved by the General Department of Technical Education itself. (Objective No. 4, as an example).



Source: General Department of Technical Education, Ministry of Education, Saudi Arabian Kingdom

Figure 2. Open Structure of Industrial Education

In the Second Five-Year Plan, Industrial Education became worse, at least until the end of the fourth year of the plan (1978-79). Table VIII shows the number of new students enrolled in the last four years and the number of students projected in the plan. This table shows that only 867 students were enrolled in 1975/76, while the number projected was 1,640; 483 were enrolled for the second year, while 2,040 were projected; 382 for the third year, while 2,150 were projected and 486 for the fourth year were enrolled, while 2,920 had been projected.[90] The percentages of enrollments failed to meet expectations. The percentages of the four years are - .53, .24, .18 and .17, successively.

TABLE VIII

PROJECTED AND OBTAINED (ACTUAL) NUMBER OF ENROLLEES IN INDUSTRIAL EDUCATION DURING 1975/76 - 1978/79

	1975-76	1976-77	1977-78	1978-79
Projected No.	1,640	2,040	2,150	2,920
Enrolled No.	867	483	382	486
Percentage of Attainment	53	24	18	17

Source of Basic Data: Ministry of Planning and General Department of Technical Education

Moreover, on the projected plan, there were three civil engineering institutes, one hotel school, and one technical petro-chemical institute to be established during the plan period, but none of these materialized.

If this situation of industrial education persists, hopefully not, this type of technical education in the Kingdom will be at the point of death by the end of the plan period in 1979-80, unless some strong action is taken to gear industrial education in the right direction on the industrialization caravan.

Most of these problems can be blamed on the weakness of the General Department of Technical Education because of its ineffective administrative system and the lack of control over the developmental process. For example, according to the Ministry of Education, the plan estimated 54.3 students from the intermediate school graduation class to be enrolled in general education. The percentage of intermediate graduates enrolled in general education has reached 76.6% this year, 1978-79.[91]

Another example is the monetary allowance of students during the studying period. Students in the Industrial Education course could have 675 SR per month while Aramco pays them 1,345 SR per month, and requires less time. (3.35 Saudi Riyal = 1 U. S. Dollar.)

Figure 3 illustrates the trades existing in industrial education at the secondary level. Each one of the five departments, including their functions, are listed below.

1. Mechanical Department

   a. General mechanics: includes work with workshop machine tools, such as lathes, shaping, milling, and grinding machines.

Department / Sections / Schools and Their Locations	City	Mechanical Dept.			Elect. Dept.		Automotive Dept.			R-TV Dept.	Architecture Dept.	
		General Mech. Machine Tool	Fine Mech.	Metal Working (Steel Const.)	Installation	Electro-Mechanic	Mechanic	Electro-Diesel	Diesel	Radio and TV	Draftsman	Supervisors
Royal Technical Institute	Riyadh	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨
Pilot Technical and Industrial Institute	Jeddah	▨			▨		▨					
Secondary Vocational School (S.V.S.)	Madinah	▨			▨		▨					
S.V.S.	Hoffuf	▨		▨	▨	▨	▨	▨	▨			
S.V.S.	Abha	▨		▨	▨	▨	▨	▨				
S.V.S.	Al-Taif	▨		▨	▨	▨	▨	▨				
S.V.S	Unaizah	▨		▨	▨	▨	▨	▨				
S.V.S	Dammam	▨		▨	▨	▨	▨	▨				

Source: General Department of Technical Education.

Figure 3. Trades Existing in the Secondary Industrial Institutes and Their Locations

b. Fine mechanics: includes working on workshop machine tools with high accuracy.

c. Metal working mechanics: (Steel contruction) includes sheet - forming, forging, different methods of welding and riveting.

2. Electrical Department

a. Electrical Installations: includes general electrical fittings: installations and other industrial purposes.

b. Electro mechanics: includes electro mechanic works, motor and transformer rewinding; cooling and air conditioning maintenance.

3. Automotive Department

a. Car mechanics: includes maintenance for automotives.

b. Electro diesel: includes electrical and diesel pump works for vehicles.

c. Diesel mechanics: maintenance training for stationary and movable diesel motors.

4. Radio and TV Department

Teaching student the maintenance of Radio and TV sets.

5. Architecture Department

a. Architectural drawing division: training student on architectural and constructional drawing.

b. Civil Engineering, supervisors: training student in control and supervision during the construction of buildings, roads and survey works.

Table IX shows the industrial education curriculum content for the five departments. This table indicates that the most considerable

TABLE IX

CURRICULUM CONTENT AND WEEKLY TIME PERIODS OF INDUSTRIAL EDUCATION DISTRIBUTED BY GRADE LEVEL

Department / Section / Grade* / Subjects	Mechanic			Electricity			Automotives			Radio and TV			Civil Engineering					
	General Mech. Fine Mech. Metal Working (Steel Constr.)			Electrical installation Electro-mechanic			Car - Mech. Electro - Diesel Diesel Mech.			Radio and TV			Technical Supervisors			Architect Draftsman		
	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
Workshop Technology (machinery)	4	4	8	4	8	10	4	6	10	6	8	12	4	4	8	4	4	8
Workshop Technology (material)	2	2	-	2	2	-	2	2	-	2	2	-	2	2	-	2	2	-
Technical Mathematics	4	4	6	4	4	6	4	4	6	4	4	6	4	4	6	4	4	6
Technical Drawing	6	8	8	6	4	6	6	6	6	4	4	4	6	8	8	16	18	18
Industrial Economy	-	-	4	-	-	4	-	-	4	-	-	4	-	-	4	-	-	4
General Mathematics	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Physics	2	2	-	2	2	-	2	2	-	2	2	-	2	2	-	2	2	-
Chemistry	2	2	-	2	2	-	2	2	-	2	2	-	2	2	-	2	2	-
Arabic & Religion	4	2	-	4	2	-	4	2	-	4	2	-	4	2	-	4	2	-
English Language	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
Physical Training	2	2	-	2	2	-	2	2	-	2	2	-	2	2	-	2	2	-
Total	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	50	50	50

Source: General Department of Technical Education

* Grade 1 Equivalent to 10th Grade in U. S. Educational System
Grade 2 Equivalent to 11th Grade in U. S. Educational System
Grade 3 Equivalent to 12th Grade in U. S. Educational System

subject among these departments is English, which absorbs eight hours per week.

Commercial Education

The first department concerned with commercial education under the Ministry of Education was established in 1959. Four intermediate schools were established: one in Riyadh, one in Dammam, one in Mecca and one in Jeddah; with a total of 214 students. By the late 1960's the Ministry of Education decided to raise the level of commercial education to secondary level. In the year 1971-72 the first three commercial secondary schools were opened in Jeddah, Riyadh and Dammam, respectively. A total of 180 students enrolled. Commercial Education made a great contribution to the first five-year plan (1970-75).

The Second Five-Year Plan described the success of Commercial Education in the first plan as follows: "The commercial education program has proved highly successful, with enrollment growing from 134 to 715 students in 1974-75, well above plan estimates."[92]

During the Second Five-Year Plan four more Secondary Commercial Schools were opened in order to raise the number of students from 715 in 1974-75 to 3,303 in 1979-80. Three night schools were added.

The government has not yet set the pay scale for the graduates of the Higher Commercial Institution.

Table X shows the number of enrollees which was projected, and the number actually obtained during the last four-year period of the plan, also the percentage of obtainment.

TABLE X

PROJECTED AND OBTAINED (ACTUAL) NUMBER OF ENROLLEES IN COMMERCIAL EDUCATION DURING 1975/76 - 1978/79

Year / Level	1975-76			1976-77			1977-78			1978-79		
	Projected No.	Obtained No.	%	Projected No.	Obtained No.	%	Projected No.	Obtained No.	%	Projected No.	Obtained No.	%
High Commercial Institute	105	0	0	220	89	40	227	189	89	224	162	72
Secondary Commercial Schools	960	1,004	105	1,195	1,083	91	1,243	1,313	106	1,431	1,648	115

Source of Basic Data: General Department of Technical Education.

The larger enrollment at the secondary level can be attributed to the three night schools which were opened earlier than projected.[93] The plan indicated that the schools would be opened during the last year of the plan, 1979-80.

The curriculum content of general education in Commercial Education seems to be different from that in Industrial and Agricultural Education. Table XI shows that the Arabic language consumes the third greatest portion of the Commercial Education curriculum.

Agricultural Education

According to the General Department of Technical Education, the first agricultural school in the Kingdom was established in 1955. It was established by the Ministry of Agriculture at the intermediate level in Al-Karge City. However, this school has been cancelled as of 1960, after shifting the responsibility of agricultural education from the Ministry of Agriculture to the Ministry of Education. The first Department of Agricultural Education was established in the Ministry of Education in 1959. In 1960 five intermediate schools were established as follows: one in Jaizan, one in Balgirashi, one in Al-Magema'a, one in Buraydah and one in Al-Hoffuf. Each required a four-year study. Four years later the Ministry of Education decided to raise the level of Agricultural Education to the secondary level and enrich the former graduates with a refresher course of training, either inside or outside the country. The total intermediate graduates amounted to 487 as follows:[94]

TABLE XI

CURRICULUM CONTENT AND WEEKLY TIME PERIODS OF COMMERCIAL SECONDARY SCHOOL DISTRIBUTED BY GRADE LEVEL

Subjects	GRADE*			Total
	1	2	3	
Arabic	6	4	4	14
Religion	2	2	2	6
English Language	6	6	6	18
Geography & Economy	3	–	–	3
Physical Training	1	1	1	3
Bookkeeping	4	4	4	12
Business Training (Arabic)	3	3	3	9
Business Correspondence	–	3	3	6
Financial Mathematics	4	4	4	12
Principles of Economy	–	3	3	6
Typewriting (Arabic & English)	6	6	6	18
Total	35	36	36	107

Source: General Department of Technical Education

* Grade 1 Equivalent to 10th Grade in U. S. Educational System
Grade 2 Equivalent to 11th Grade in U. S. Educational System
Grade 3 Equivalent to 12th Grade in U. S. Educational System

1963/64 - 60 graduates

1964/65 - 82 graduates

1965/66 - 87 graduates

1966/67 - 151 graduates

1967/68 - 71 graduates

1968/69 - 36 graduates

Thirteen years after the Ministry of Education decided to raise the level of Agricultural Education to the secondary level, the first secondary Agricultural Institute was opened in Buraydah. This institute was opened in 1977-78, although they had planned on opening it in 1976-77, one year earlier according to the second plan.[95] The overall evaluation of agricultural education during the First Five-Year Plan has been summarized by the Second Five-Year Plan as follows: "The Agricultural Technical School at Buraydah is still under construction and no work has been done on other agricultural institutes that were scheduled in the plan."[96]

Besides Buraydah Institute, the Second Plan developed four more institutes which were to be opened in 1978-79. The number of students projected for the agricultural institutions during the first four years of the second plan is shown in Table XII. This table also provides the percentages of obtainment. However, the four Agricultural and Industrial Agricultural Institutes will not be equipped and able to operate before the end of the second Five-Year Plan period in the middle of 1980.

The agricultural education curriculum seems to be more general, as is shown in Table XIII. There is no emphasis upon one particular

TABLE XII

PROJECTED AND OBTAINED (ACTUAL) NUMBERS OF ENROLLEES IN AGRICULTURAL EDUCATION DURING 1975-76 TILL 1978-79

Year	1975-76			1976-77			1977-78			1978-79		
Institute	Projected No.	Obtained No.	%	Projected No.	Obtained No.	%	Projected No.	Obtained No.	%	Projected No.	Obtained No.	%
Buraydah Institute	-	-	-	175	0	0	142	134	94	142	140	99
Hoffuf Institute	-	-	-	-	-	-	-	-	-	135	0	0
Three Industrial Agricultural Institutes	-	-	-	-	-	-	-	-	-	150	0	0

Source of Basic Data: General Department of Technical Education.

TABLE XIII ✓

CURRICULUM CONTENT AND WEEKLY TIME PERIODS OF MODEL TECHNICAL AGRICULTURAL INSTITUTE OF BURAYDAH DISTRIBUTED BY GRADE LEVEL

Subjects	GRADE* 1	2	3	Total
Arabic	2	2	1	5
Religion	2	2	-	4
English Language	2	2	2	6
General Mathematics	3	-	-	3
Applied Physics	2	-	-	2
Applied Agricultural-Chemistry	3	-	-	3
Physical Training	1	1	1	3
Biology	3	-	-	3
Plant Protection	-	2	2	4
Agronomy	3	2	2	7
Horticulture	-	2	3	5
Soils	2	2	-	4
Plant Nutrition	-	2	2	4
Irrigation and Drainage	2	2	2	6
Farm Machinery and Workshops	3	1	2	6
Anatomy and Physiology	2	-	-	2
Animal Health	-	1	2	3
Poultry and Bookkeeping	1	1	2	4
Agricultural Economics	-	2	2	4
Farm Management and Bookkeeping	-	1	2	3
Agriculture - Industries	-	2	2	4
Agriculture - Marketing	-	2	2	4
Agriculture - Extension	1	2	3	6
Animal Production	3	4	3	10
Total	35	35	35	105

Source: General Department of Technical Education

* Grade 1 Equivalent to 10th Grade in U. S. Educational System
Grade 2 Equivalent to 11th Grade in U. S. Educational System
Grade 3 Equivalent to 12th Grade in U. S. Educational System

specialty. It is noteworthy though that animal production and agronomy have the greatest amount of curriculum content.

FOOTNOTES

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[87]Ibid., pp. 10-12.

[88]GDTE, Figures and Statistical Information, p. 9. However, the Second Development Plan has indicated on page 247 that:

> The industrial education program in the secondary level technical institutes has not progressed at the pace anticipated in the first development plan: only four of the ten proposed institutes are in operation and enrollments prior to 1974-75 have been well below plan projections.

[89]Muhammad Al-Mutabakani, Technical Education Philosophy in Arab States (1974), pp. 8-10.

[90]GDTE "Memorandum about Technical Education" (1979), p. 3.

[91]Ministry of Education, Illustrations of Statistical Studies and Educational Situations (Riyadh, 1978), p. 20.

[92]C.P.O., The Second Five-Year Plan (1975-80), p. 259.

[93]Ibid., p. 275

[94]GDTE, Figures and Statistical Information, p. 11.

[95]GDTE, Discussion Paper: "Undergraduate Agricultural Education Development in the Kingdom" (Riyadh, 1977), p. 1.

[96]C.P.O., The Second Five-Year Plan (1975-80), p. 276.

[97]Ibid., p. 259.

CHAPTER III

FINDINGS AND DISCUSSION

Due to the present condition of technical education in Saudi Arabia as it is described in Chapter II the investigator attempted to identify problems and barriers confronting technical education and technical manpower development in the Kingdom. He worked extensively with people who were concerned with technical education and manpower development in the Kingdom. Many problems have been identified by individuals. Some of the problems concerned students, some concerned administrators, others concerned programs, still others concerned society, and some concerned both the first and the second Five-Year Plans; however, thos problems have been classified into four parts to be answered by students (Form 1), graduates (Form 2), governmental departments (Form 3), and those people concerned with technical education and manpower development (Form 4). A random sampling has been employed for Form No. 1, i.e., three students from each classroom in the three areas of Industrial, Commercial and Agricultural. For Form No. 2, four graduates from each department in the Ministry of Defense, exclusively. Form No. 3 concerned 19 governmental departments from the Government Budget Book of 1978-79. However, for Form No. 4 there were 124 people selected from among

those who were participating in technical education and manpower development in the Kingdom. Those people include instructors, administrators and planners.

The result of Form 1 is summarized in Tables XIV, XV and XVI. The results of student and graduate questionnaires indicate that there is a lack of vocational guidance and information. There are 97% industrial and agricultural students, 100% of commercial students, and 90% from industrial and commercial school graduates, about whom information was given by colleagues and friends. However, the responses to Question No. 3 indicate that 100% of the graduates, 72% of the commercial students, 86% of the industrial students indicated that they have a choice as to their field of study and are permitted to exercise their own desire. Slightly over half of the agricultural students, 52%, indicated that they chose their institution because there was a lack of interest in University education. Moreover, there are only two colleges in Al-Gassim area where agricultural institutes are located. They are Islamic Law (Shariah) and Arabic Language Colleges.

Most of the industrial and agricultural students have unsatisfactory information about their future jobs. Exception is made only for the industrial students of which 65% indicate that they have satisfactory information concerning their salaries and wages; 92% of them indicate that they are well informed about working conditions on their jobs. Most of the graduates have good or satisfactory information about their jobs, and yet 43% of them have not obtained satisfactory information about their training and academic advancement

TABLE XIV

QUESTIONNAIRE RESULTS OF SECONDARY INDUSTRIAL EDUCATION STUDENTS

PART ONE: Occupational Guidance

Q. 1. How did you come to know about your area of study?

	No. of Responses	%
(a) Guardian/Relative	0	0
(b) Counselor	1	01
(c) Colleague/Friend	143	97
(d) Newspapers/Magazines	1	01
(e) Publications/Wall-Posters	0	0
(f) Curriculum Orientation	2	01
Total	147	100

Q. 2. If your answer to Question No. 1 is either (a), (b), or (c), then state which of the remaining, i.e., (d), (e), or (f) had direct influence upon him.

(d)	15	79
(e)	4	21
(f)	0	0
Total[a]	19	100

TABLE XIV (Continued)

Q. 3. Which of the following factors influenced your decision to select your speciality?

		No. of Responses	%
(a)	Personal desire	126	86
(b)	Guardian's desire	0	0
(c)	Non-availability of first choice	4	03
(d)	Lack of interest in university education	17	12
(e)	Nearness of the institution to your place of residence	0	0
	Total[b]	147	101

Q. 4. From your personal knowledge, how would you evaluate the following aspects of your future employment?

		Good		Satisfactory		Unsatisfactory			
		Number of Responses	%	Number of Responses	%	Number of Responses	%	Total	%
(a)	Salaries & wages	3	02	95	65	49	33	147	100
(b)	Work conditions	135	92	12	08	0	0	147	100
(c)	Terms & working hours	2	01	25	17	120	82	147	100
(d)	Duties & responsibilities	0	0	5	03	142	97	147	100
(e)	Efficiency and capabilities required for work	0	0	1	01	146	99	147	100
(f)	Academic advance & training requirement	0	0	2	01	145	99	147	100
(g)	Allowances & scale of promotion	0	0	0	0	147	100	147	100

TABLE XIV (Continued)

Q. 5. Which of the following would you prefer to work for:

	No. of Responses	%
(a) Public Civil Service	98	67
(b) Military service	1	01
(c) A private company	5	03
(d) Any other reason	43[c]	29
Total	147	100

PART TWO: Evaluation of Training

	Excellent		Good		Satisfactory		Unsatisfactory			
	Number of Responses	%	Number of Responses	%	Number of Responses	%	Number of Responses	%	Total	%
Q. 1. How would you evaluate training in your institute?	28	19	97	66	22	15	0	0	147	100
Q. 2. What is your evaluation of the equipment/training aids used in the institute?	96	65	41	28	10	07	0	0	147	100
Q. 3. How would you evaluate your instructors' efficiency?	0	0	12	08	87	59	48	33	147	100

TABLE XIV (Continued)

	Excellent		Good		Satisfactory		Unsatisfactory			
	Number of Responses	%	Number of Responses	%	Number of Responses	%	Number of Responses	%	Total	%
Q. 4. What is your evaluation of your instructors' knowledge of their subjects?	15	10	79	54	32	22	21	14	147	100
Q. 5. What is your evaluation of the instructors' enthusiasm and devotion to their jobs?	10	07	16	11	69	47	52	35	147	100

[a]A total of 128 did not respond to this question.

[b]Over 100% due to rounding off.

[c]43 students preferred to open workshop.

TABLE XV

QUESTIONNAIRE RESULTS OF SECONDARY COMMERCIAL EDUCATION STUDENTS

PART ONE: Occupational Guidance

Q. 1. How did you come to know about your area of study?

	No. of Responses	%
(a) Guardian/Relative	0	0
(b) Counselor	0	0
(c) Colleague/Friend	97	100
(d) Newspapers/Magazines	0	0
(e) Publications/Wall-Posters	0	0
(f) Curriculum Orientation	0	0
Total	97	100

Q. 2. If your answer to Question No. 1 is either (a), (b), or (c), then state (check) which of the remaining, i.e., (d), (e), or (f) had direct influence upon him.

(d)	23	61
(e)	15	39
(f)	0	0
Total[a]	38	100

TABLE XV (Continued)

Q. 3. Which of the following factors influenced your decision to select your specialty?

		No. of Responses	%
(a)	Personal desire	70	72
(b)	Guardian's desire	0	0
(c)	Non-availability of first choice	0	0
(d)	Lack of interest in university education	27	28
(e)	Nearness of the institution to your place of residence	0	0
	Total	97	100

Q. 4. From your personal knowledge, how would you evaluate the following aspects of your future employment?

		Good		Satisfactory		Unsatisfactory			
		Number of Responses	%	Number of Responses	%	Number of Responses	%	Total	%
(a)	Salaries and wages	58	60	39	40	0	0	97	100
(b)	Work conditions	92	95	5	05	0	0	97	100
(c)	Terms & working hours	97	100	0	0	0	0	97	100
(d)	Duties & responsibilities	60	62	27	28	0	0	97	100
(e)	Efficiency and capabilities required for work	11	11	44	45	42	43	97	99[b]
(f)	Academic advance & training requirement	3	03	59	61	35	36	97	100
(g)	Allowances & scale of promotion	4	04	21	22	72	74	97	100

TABLE XV (Continued)

Q. 5. Which of the following would you prefer to work for?

	No. of Responses	%
(a) Public Civil Service	38	39
(b) Military Service	0	0
(c) A private company	59	61
(d) Any other reason	0	0
Total	97	100

PART TWO: Evaluation of Training

	Excellent		Good		Satisfactory		Unsatisfactory			
	Number of Responses	%	Number of Responses	%	Number of Responses	%	Number of Responses	%	Total	%
Q. 1. How would you evaluate training in your institute?	65	67	32	33	0	0	0	0	97	100
Q. 2. What is your evaluation of the equipment/training aids used in the institute?	0	0	73	75	18	19	6	06	97	100
Q. 3. How would you evaluate your instructors' efficiency?	50	52	38	39	9	09	0	0	97	100

TABLE XV (Continued)

	Excellent		Good		Satisfactory		Unsatisfactory			
	Number of Responses	%	Number of Responses	%	Number of Responses	%	Number of Responses	%	Total	%
Q. 4. What is your evaluation of your instructors' knowledge of their subjects?	55	57	39	40	3	03	0	0	97	100
Q. 5. What is your evaluation of the instructors' enthusiasm and devotion to their jobs?	40	41	49	51	8	08	0	0	97	100

[a]A total of 59 did not respond to the question.

[b]Under 100% due to rounding off.

TABLE XVI

QUESTIONNAIRE RESULTS OF SECONDARY AGRICULTURAL EDUCATION STUDENTS

PART ONE: Occupational Guidance

Q. 1. How did you come to know about your area of study?

		No. of Responses	%
(a)	Guardian/Relative	0	0
(b)	Counselor	0	0
(c)	Colleague/Friend	37	97
(d)	Newspapers/Magazines	1	03
(e)	Publications/Wall-Posters	0	0
(f)	Curriculum Orientation	0	0
	Total	38	100

Q. 2. If your answer to question No. 1 is either (a), (b), or (c), then (check) which of the remaining, i.e. (d), (e), or (f) had direct influence upon him.

	(d)	7	41
	(e)	10	59
	(f)	0	0
	Total[a]	17	100

TABLE XVI (Continued

Q. 3. Which of the following factors influenced your decision to select your specialty?

		No. of Responses	%
(a)	Personal desire	7	18
(b)	Guardian's desire	1	03
(c)	Non-availability of first choice	0	0
(d)	Lack of interest in university education	20	53
(e)	Nearness of the institution to your place of residence	10	26
	Total	38	100

Q. 4. From your personal knowledge, how would you evaluate the following aspects of your future employment?

		Good		Satisfactory		Unsatisfactory			
		Number of Responses	%	Number of Responses	%	Number of Responses	%	Total	%
(a)	Salaries and wages	1	03	11	29	26	68	38	100
(b)	Work conditions	0	0	6	16	32	84	38	100
(c)	Terms & working hours	0	0	3	08	35	92	38	100
(d)	Duties & responsibilities	0	0	7	18	31	82	38	100
(e)	Efficiency & capabilities required for work	0	0	1	03	37	97	38	100
(f)	Academic advance & training requirement	0	0	0	0	38	100	38	100
(g)	Allowances & scale of promotion	0	0	0	0	38	100	38	100

TABLE XVI (Continued)

Q. 5. Which of the following would you prefer to work for?

	No. of Responses	%
(a) Public Civil Service	35	92
(b) Military Service	1	03
(c) A private company	0	0
(d) Any other reason	2[b]	05
Total	38	100

PART TWO: Evaluation of Training

	Excellent		Good		Satisfactory		Unsatisfactory			
	Number of Responses	%	Number of Responses	%	Number of Responses	%	Number of Responses	%	Total	%
Q. 1. How would you evaluate training in your institute?	36	95	2	05	0	0	0	0	38	100
Q. 2. What is your evaluation of the equipment/training aids used in the institute?	38	100	0	0	0	0	0	0	38	100
Q. 3. How would you evaluate your instructors' efficiency?	15	39	20	53	3	08	0	0	38	100

TABLE XVI (Continued)

	Excellent		Good		Satisfactory		Unsatisfactory			
	Number of Responses	%	Number of Responses	%	Number of Responses	%	Number of Responses	%	Total	%
Q. 4. What is your evaluation of your instructors' knowledge of their subjects?	13	34	22	58	3	08	0	0	38	100
Q. 5. What is your evaluation of the instructors' enthusiam and devotion to their jobs?	11	29	21	55	6	16	0	0	38	100

[a]A total of 21 did not respond to the question.

[b]Two preferred to work in their own firms.

required for their jobs. Commercial students have the highest rank among the current students in technical education in terms of their knowledge about their future employment, except for the portion concerned with future allowances and scale of promotions.

Question No. 5 put to test the interests of students who are willing to work for the government. Of particular interest are those wanting Military Service as a career. Only two preferred to be in the Military Service, one an industrial student and the other an agricultural student. They count .01% from Industrial Students and .03% from Agricultural students. None of the commercial students preferred to be in the Military Service. Sixty-one percent of the commercial students preferred to work for the Private Sector while 67% of the industrial students and 92% of the agricultural student preferred to work for the Government Civil Service. However, Question No. 5 asked graduates how they obtained their job. Results showed that 83% received help from the Military Service, 12% from the Civil Service Bureau and 05% were helped by a friend or relative. Part Two of Form No. 1 and Form No. 2 was designed to evaluate the technical education program from students and graduates points of view. There is a high rate of agreement among the responses for giving an exceptional rating for their institute equipment except the commercial student where 75% of them gave a good rating. This could indicate that new equipment has been provided for technical education. The most agreement among all responses was shown in the instructors' enthusiasm. All groups, commercial, agricultural and graduate students gave the same rating. For the graduates there were two questions

about the relationship between their present jobs and their specialty. The result indicates that only one or .02% are now working in their area of specialization, 21% are working in related areas, and 76% are working in areas that have no relation to their area of specialization. However, all of them indicate that their personal desire was not to work in the field of their specialty (Table XVII).

From the employers point of view, Table XVIII indicates that the government agencies gave the industrial and commercial programs and their graduates a good rating. The only exception among these responses is the evaluation of the graduates in terms of their interest in their work and their cooperation, which would be considered a personal matter. Fifty-four percent were ranked satisfactory in the graduate cooperation in general, and 05% were ranked unsatisfactory in the same question. There are 54% who think that the specialties available in the field of industrial education are parallel to those of development requirements in the Kingdom, while 59% have the same view about the specialties available in the field of commercial education. Forty-six percent thought that the specialties available in the field of industrial education were not parallel to those of development requirements in the Kingdom. They indicate that the most important areas are petrochemical and industrial administration which should take priority over all others. There are 41% who indicate that same outlook concerning commercial education. They indicate that office management, regulations, and administrative laws should take priority over other specialties. All government agencies included in

TABLE XVII

QUESTIONNAIRE RESULTS OF SECONDARY INDUSTRIAL AND COMMERCIAL GRADUATES FOLLOW-UP

PART ONE: Occupational Guidance & Information

Q. 1. How did you come to know about your area of study?

	No. of Responses	%
(a) Guardian/Relative	0	0
(b) Counselor	0	0
(c) Colleague/Friend	38	90
(d) Newspaper/Magazine	4	10
(e) Publications/Wall-Posters	0	0
(f) Curriculum Orientation	0	0
Total	42	100

Q. 2. If your answer to question No. 1 is either (a), (b), or (c), then state (check) which of the remaining, i.e., (d), (e), or (f) had direct influence upon him.

(d)	2	40
(e)	3	60
(f)	0	0
Total[a]	5	100

TABLE XVII (Continued)

Q. 3. Which of the following factors influenced your decision to select your specialty?

		No. of Responses	%
(a)	Personal desire	42	100
(b)	Guardian's desire	0	0
(c)	Non-availability of first choice	0	0
(d)	Lack of interest in university education	0	0
(e)	Nearness of the institution to your place of residence	0	0
	Total	42	100

Q. 4. From your personal knowledge, how would you evaluate the following aspects of your future employment?

		Good		Satisfactory		Unsatisfactory			
		Number of Responses	%	Number of Responses	%	Number of Responses	%	Total	%
(a)	Salaries and Wages	40	95	2	05	0	0	42	100
(b)	Work conditions	42	100	0	0	0	0	42	100
(c)	Terms & working hours	42	100	0	0	0	0	42	100
(d)	Duties & responsibilities	20	48	16	38	6	14	42	100
(e)	Efficiency & capabilities required for work	18	43	17	40	7	17	42	100
(f)	Advance academic & training requirements	5	12	19	45	18	43	42	100
(g)	Allowances & scale of promotion	42	100	0	0	0	0	42	100

TABLE XVII (Continued)

Q. 5. Through which of the following did you get your present work?

	No. of Responses	%
(a) Civil Service Bureau	5	12
(b) Labor Office	0	0
(c) Military Service	35	83
(d) A private company	0	0
(e) A friend/relative	2	05
Total	42	100

Q. 6. Check any of the following which is most appropriate to your evaluation.

(a) My present work falls within the field of my specialty.	1	02
(b) My present work is closely related to my field of specialization.	9	21
(c) My present work has no relation to my field of specialization.	32	76
Total[b]	42	99

Q. 7. If your answer to Question No. 6 is (c), would you please check the most appropriate reasons from among the following.

(a) Personal desire not to work in the field of my specialty.	32	100
(b) Personal desire of the employer not to allow me to work in the field of my specialty	0	0

TABLE XVII (Continued)

Q. 7 (Con't.)	No. of Responses	%
(c) Change of employer resulting in change of trade.	0	0
(d) Any other reason.	0	0
Total	32	100

PART TWO: Evaluation of Training

	Excellent		Good		Satisfactory		Unsatisfactory			
	Number of Responses	%	Number of Responses	%	Number of Responses	%	Number of Responses	%	Total	%
Q. 1. How would you evaluate training in your former institute?	0	0	36	86	6	14	0	0	42	100
Q. 2. What is your evaluation of the equipment/training aids used in the institute?	21	50	15	36	6	14	0	0	42	100
Q. 3. How would you evaluate your former instructors' efficiency?	0	0	38	90	4	10	0	0	42	100

TABLE XVII (Continued)

	Excellent		Good		Satisfactory		Unsatisfactory			
	Number of Responses	%	Number of Responses	%	Number of Responses	%	Number of Responses	%	Total	%
Q. 4. What is your evaluation of your instructors' knowledge of their subjects?	1	02	39	93	2	05	0	0	42	100
Q. 5. What is your evaluation of your instructors' enthusiasm and devotion to their jobs?	0	0	35	83	7	17	0	0	42	100

[a]A total of 37 did not respond to their questionnaire.

[b]Unachievement of 100% due to rounding off.

TABLE XVIII

QUESTIONNAIRE RESULTS OF GOVERNMENT AGENCIES

PART ONE: Evaluation of employees working in/with their own specialty:

	Good		Satisfactory		Unsatisfactory			
	Number of Responses	%	Number of Responses	%	Number of Responses	%	Total	%
Q. 1. How would you evaluate the efficiency of the graduate in respect of quality of achievement?	33	89	4	11	0	0	37	100
Q. 2. How would you evaluate the efficiency of the graduate in respect of quantity of achievement?	34	92	3	08	0	0	37	100
Q. 3. How would you evaluate the devotion and interest of the graduate in his work?	24	65	13	35	0	0	37	100
Q. 4. How would you evaluate the devotion and interest of the graduate to increase his knowledge of the specialty?	29	78	8	22	0	0	37	100
Q. 5. How would you evaluate the level of cooperation of the graduate with his colleagues (others)?	26	70	10	27	1	03	37	100
Q. 6. How would you evaluate the level of co-operation of the graduate in general?	15	41	20	54	2	05	37	100

TABLE XVIII (Continued)

PART TWO: Evaluation of programs and training:

	Good		Satisfactory		Unsatisfactory			
	Number of Responses	%	Number of Responses	%	Number of Responses	%	Total	%
Q. 1. How would you evaluate the level of programs of Industrial training in the Kingdom?	37	100	0	0	0	0	37	100
Q. 2. How would you evaluate the level of programs of Commercial Education training in the Kingdom?	37	100	0	0	0	0	37	100

	Yes		No			
	Number of Responses	%	Number of Responses	%	Total	%
Q. 3. Do you think that the specialties available in the field of industrial education are parallel to those of development requirements in the Kingdom?	20	54	17	46	37	100

Q. 4. If your answer to Question No. 3 is (No) what are the specialties which should take priority on all others?

Petro-Chemical & Industrial Administration indicated the most to be taken priority.

TABLE XVIII (Continued)

	Yes		No			
	Number of Responses	%	Number of Resources	%	Total	%
Q. 5. Do you think that the specialties available in the field of Commercial education are planned with the requirement of development in the Kingdom?	22	59	15	41	37	100
Q. 6. If your answer to Question No. 5 is (No), what are the specialties that should take priority?	Office Management, Regulations and Laws indicated the most to be taken priority.					
Q. 7 Do you have any (OJT) programs for graduates of Industrial education institutions?	0	0	37	100	37	100
Q. 8. Do you have any OJT programs for graduates of Commercial education institutions?	0	0	37	100	37	100
Q. 9. Are you satisfied with level of efficiency of the graduates of Industrial Education Institutions.	37	100	0	0	37	100
Q. 10. Are you satisfied with level of efficiency of the graduates of Commercial Education Institutions?	37	100	0	0	37	100

this questionnaire indicated that they have no single on-the-job training program for the industrial and commercial education graduates, and all of them are satisfied with the level of efficiency shown by the graduates of these two technical education areas.

Table XIX provides the summary of 124 responses to problems facing technical manpower development and technical education programs in the Kingdom. All responses indicate that the shortage of Saudi technical manpower and under-utilization of the available Saudi and non-Saudi manpower are very effective problems. However, none of the responses considered a shortage of non-Saudi manpower as very effective. There were 56% who indicated that a shortage of non-Saudi manpower is not effective. Seventy percent of the responses considered that there was no connection between the academic programs and requirements of development in respect to the required number of trainees and that was very effective. Twenty-four percent did consider that as effective, and 06% considered it as not effective. In their evaluation of the type of programs, 69% considered that an effective relationship exists; 23% considered it as very effective, and 08% considered it as totally ineffective. In respective to the level of education, 64% of the responses considered it effective, 12% considered it very effective, and 24% considered it as not effective. Most of the responses, 85%, considered that non-coordination between academic and other training programs in the technical area was very effective. Fifteen percent considered it effective. Sixty-eight percent indicated that administrative jobs are occupied by great numbers of technical specialists, and that they are effective; while 32% considered them very effective.

TABLE XIX

QUESTIONNAIRE RESULTS OF PERSONNEL CONCERNED WITH TECHNICAL MANPOWER AND TECHNICAL EDUCATION

PART ONE: Problems facing the growth and development of manpower in the Kingdom.

	Very Effective		Effective		Not Effective			
	Number of Responses	%	Number of Responses	%	Number of Responses	%	Total	%
Q. 1. What are the effects of the following factors which form obstacles on the way of the development for technical manpower in the Kingdom?								
(a) Shortage of Saudi technical manpower.	124	100	0	0	0	0	124	100
(b) Shortage of non-Saudi technical manpower.	0	0	55	44	69	56	124	100
(c) Underutilizing the available manpower Saudi and non-Saudi.	124	100	0	0	0	0	124	100
(d) No connection between the academic programs and the requirements of the development in respect of types of programs.	29	23	85	69	10	08	124	100
(e) No connection between the academic programs and the requirements of the developments in respect of levels of education or training.	15	12	79	64	30	24	124	100

TABLE XIX (Continued)

	Very Effective		Effective		Not Effective		Total	%
	Number of Responses	%	Number of Responses	%	Number of Responses	%		
Q. 1. (Con't.)								
(f) No connection between the academic programs and the requirement of development in respect of the required numbers of trainees.	87	70	30	24	7	06	124	100
(g) No coordination between academic and training programs in technical areas.	105	85	18	15	0	0	124	100
(h) Administrative jobs are occupied by great number of technical specialists.	40	32	84	68	0	0	124	100
(i) Lack of financial and administrative experience in the fields of technical training and education.	65	52	59	48	0	0	124	100
Q. 2. Supposing that the growth and development of technical manpower in the Kingdom in respect of:								
(a) Non-availability of the desired or required numbers.								
(b) Achievement of efficience level by the required numbers.								

TABLE XIX (Continued)

		Number of Responses	%
Q. 2. (Con't.)			
(c) The percentage of non-utility of technicians is 100% - what percentage would you give to each of the following:			
i) Non-availability of the required numbers of technical training staff.	+33.33	41	33
ii) Non-availability of the quantities and capabilities requried.	+33.33	28	23
iii) Non-utility of the numbers and capabilities required.	+33.33	55	44

PART TWO: From your point of view what are the effects of the following factors which form obstacles on the way of technical education in the Kingdom?

	Very Effective		Effective		Not Effective			
	Number of Responses	%	Number of Responses	%	Number of Responses	%	Total	%
Q. 1. Students' Problems:								
(a) Non-availability of the required number of students in technical education	98	79	20	16	6	05	124	100
(b) Student not choosing the right trade suitable to him.	69	56	47	38	8	06	124	100

TABLE XIX (Continued)

	Very Effective		Effective		Not Effective			
	Number of Responses	%	Number of Responses	%	Number of Responses	%	Total	%
Q. 1. (Con't.)								
(c) Students desire to obtain higher levels of education.	29	23	68	55	27	22	124	100
(d) Non-availability of vocational guidance of students.	105	85	19	15	0	0	124	100
Q. 2. Social Problems:								
(a) Non-appreciable of society of the vocational and technical jobs.	10	08	59	48	55	44	124	100
(b) Greater or heavy demand on the unskilled labor.	68	55	56	45	0	0	124	100
Q. 3. Administrative & Financial Problems:								
(a) Lack of administrative experience	89	72	30	24	5	04	124	100
(b) Non-availability of funds required	24	19	40	32	60	48	124	99[a]
(c) Shortcomings of administrative regulations and routinism.	106	85	18	15	0	0	124	100
(d) Shortcomings of financial regulations and routinism.	115	93	9	07	0	0	124	100
(e) Non-availability of publicity about institutions	93	75	13	10	18	15	124	100

TABLE XIX (Continued)

	Very Effective		Effective		Not Effective		Total	
	Number of Responses	%	Number of Responses	%	Number of Responses	%		%
Q. 4. Training Problems:								
(a) Non-availability of instructors required.	1	01	37	30	86	69	124	100
(b) Shortcomings and inefficiency of syllabii.	5	04	15	12	104	84	124	100
(c) System of evaluation of educational training do not help to achieve good quality and efficiency.	38	31	66	53	20	16	124	100

[a]Under 100% due to rounding off.

Lack of experience, financially and administratively in the field of technical education has been indicated as very effective by 52% while 48% considered it not effective.

Question No. 2 of Part No. 1 prepared to give a wise and comparable thought about the problem facing the growth and development of manpower in the Kingdom in terms of its quantity, quality and utilization. This question is for the purpose of comparing a, b, and c, in Question No. 1 to each other. Forty-four percent of the responses give more than 33.33% to the non-utilization of numbers, thirty-three percent give more than 33.33% to the non-unavailability of numbers, and twenty-three percent give more than 33.33% to the non-availability of qualified and capable numbers.

Part Two of Form No. 4 aims to rate the effectiveness of some students, social, administrative, financial and training problems which are facing technical education in the Kingdom today. Table XIX shows that the administrative problems rank the most very effective problems facing technical education. Seventy-two percent rate lack of administrative experience as very effective. Eighty-five percent rate the shortcomings of administrative regulations and routinism as very effective. Ninty-three percent rank the shortcomings of financial regulations and routinism as very effective. Seventy-five percent rank the lack of publicity about technical institutions as very effective. However, most of the responses, 48%, indicated that non-availability of funds required has no effect, while 32% considered it as effective and 19% considered it as very effective.

Students problems are showing as a second major problem. Seventy-nine percent considered non-availability of students as very effective, while 16% considered it effective and 05% considered it not effective. Non-availability of vocational guidance for students ranked highest as very effective and 85% also responded in this way, while 15% considered it as an effective instrument. In regard to students choosing an occupation, 56% feel that a student has not chosen the right trade suitable for him is very effective, while 38% consider it as effective and only 06% consider it as not effective. For students desiring to obtain higher education, it was considered to be effective by 55%, very effective by 23% and non-effective by 22%.

Social problems rank third. There are 48% who consider society's lack of appreciation for vocational and technical jobs is effective, while 44% consider it as not effective, and only 08% consider it as very effective. Fifty-five percent of the responses indicated that the greater demand for unskilled labor is a very effective instrument, while 45% considered it as effective.

Training problems have the least effect on the four major areas. Sixty-nine percent indicate that non-availability of instructor is not effective, while 30% considered it as effective, and 01% considered it as very effective. For the shortcomings of syllabii, 84% considered it as not effective whiles 12% considered it as effective, and 04% considered it as a very effective problem. Most of the responses considered the student evaluation system as effective in terms of not helping to achieve good quality and efficiency, 31% considered it as a very effective method and 16% as not effective.

Those results bring a semi-total agreement in some issues concerning technical manpower development and technical education programs in the Kingdom. Also, those results indicate disagreement on some other issues. However, from these results and previous illustrations and discussions of technical manpower, technical education and the plans of the Kingdom, it could be concluded that the major problems facing technical manpower programs and needs in the Kingdom of Saudi Arabia are as follows:

1. The responsibility of technical manpower development is widespread among a variety of governmental ministries, departments and agencies with no overall control.
2. There is no cooperation or coordinationa among responsible institutions in the field of technical manpower.
3. There is no existing systematic way to determine manpower needs.
4. While government plans considered the 1970's as an industrialization era, none of the existing technical programs have been remodeled to match the new trend.
5. None of the technical education programs have reached the planning goals in the Second Five-Year Plan in terms of supplying the needed manpower. commercial education, however, has exceeded its goal in the First Five-Year Plan while industrial and agricultural education did not attain theirs.
6. Many administrative, social, training and students' problems are confronting technical education programs to

shoulder their responsibilities for the industrial, commercial, and agricultural needs of the Kingdom.

CHAPTER IV

SUMMARY, CONCLUSION, AND RECOMMENDATIONS

Summary

This study was concerned with the technical manpower in the Kingdom of Saudi Arabia as a part of the Kingdom's plan for the human resources development. It focused on technical manpower programs in the areas of technical education in terms of their contribution to the human development segment and technical manpower needs in government plans. These programs contain Industrial, Commercial, Agricultural and Educational fields conducted by the Ministry of Education. Relationships among these four fields and other areas were discussed to identify the effects in inter-relations involved in technical education, and to specify current problems confronting technical manpower development in general and technical education in specific, as well as to suggest possible recommendations for the future planning to be done by government planners in the Kingdom of Saudi Arabia for this purpose and the study objectives. Many government agencies, official personnel, as well as independent agencies and personnel were considered as a major resource for this study. Among these agencies are the Ministry of Planning, the Ministry of Education, and the Ministry of Defense and Aviation, Saudi Arabia. Among official personnel are

those who are concerned with technical education and manpower development in those ministries, as well as those in the Ministry of Agriculture and Water, the Civil Service Bureau, Saudi National Center for Science and Technology, the Central Studies and Development Center, the Saudi Basic Industrial Corporation, and the Institute of Public Administration, Saudi Arabia. Among the independent agencies and personnel are international agencies, and American agencies and personnel.

A historical descriptive method has been utilized to review available literature concerned with human resource development in general and technical manpower programs and needs in the Kingdom of Saudi Arabia in particular. An interview/questionnaire analysis has also been employed to determine the past, present, and future of technical education and technical manpower development.

Conclusion

The result of this study indicated that there are social, administrative, training and student problems; these are all confronting technical education and technical manpower development in the Kingdom. In addition, there is at present no systematic procedure being utilized in the Kingdom for determining the technical manpower needs and there is a lack of cooperation and coordination among all institutions and agencies concerned with the Kingdom's technical manpower programs and needs. There has always been, according to the review of literature, a shortage of technical workers who are skilled in the trades. All of this information leads us to conclude that there is a great necessity for systematic manpower forecasting, as well as much need for

reforming and reorganizing the existing technical education and human resource programs. The Kingdom's national planning and strategies should also be re-examined in terms of comprehensive development.

Recommendations

Technical manpower problems cannot be treated without considering the Kingdom's national plan. For the next government plans in the 1980's the writer, based upon information found in the review of literature, personal interviews, and information through questionnaires, recommends the following action be taken:

For National Government Plans:

1. All educational programs and agencies should be reformed. The Ministry of Higher Education, the Ministry of Education, the General Presidency of Girl Education, as well as other governing agencies and departments which sponsor educational programs, should be under the control of one single government agency in order to avoid conflict, overlapping, and unpredicted rivalry. Another action which should be taken is the remolding of all kinds of programs and levels of education inside the Kingdom to meet the Kingdom's present needs of economic development - even considering outside of the country education programs to which some Saudis may transfer for further study - and forming one strong central unit to pull all human resources together.
2. Re-examine the government job descriptions and requirements, both in the Civil Service and Military Service, in light of

the scarcity of national manpower and benefits of technological advancement.

3. Development plans should be structured in both public and private sectors in terms of promotion of the national potential in order to reach economic, social and individual development in relation to the Kingdom's population, capability and capacity considering proper time for all physical, economic, mental and social adjustments.
4. Administrative personnel and the updating of administrative regulations and laws should be given full attention in order to fulfill the comprehensive development of a productive society.

For Technical Manpower Programs and Needs:

The writer, also based upon information obtained through a review of literature, personal interview, and information obtained through questionnaires, recommends that:

1. In accordance with recommendation number one, for National Government Plan, a new government agency for Technical Training should be established. This agency should have the responsibility of operating and observing all technical manpower programs all over the Kingdom. For the foreseeable future this agency should contain the following branches and activities:
   a. Industrial and Vocational Training Department: This Department shall include the present Industrial Education which is under The Ministry of Education, and the

Vocational Training Centers which are under The Ministry of Labor and Social Affairs. This Department should function under an Industrial-Vocational Training Board. This board should be made up of members from both the government and private agencies, members from the Ministry of Industry and Electricity, from the Ministry of Labor and Social Affairs, Petromin, SABIC, Industrial Studies and Development Center, the Al-Jobail and Yanbu Projects Royal Committee and the Civil Service Bureau.

b. The Agricultural Training Department: This Department shall include the existing Agricultural Education which is under the Ministry of Education and Training Centers, which in turn are under the Ministry of Agriculture and Water. This Department should function under the Agricultural Training Board. This board should be made up of members from both governmental and private agencies, including members of the Ministry of Agriculture and Water, The College of Agriculture at Alhassa, the College of Agriculture at Riyadh, the Civil Service Bureau and the Agricultural Bank.

c. Occupational Information System: A technical occupation and training information system should be established to provide technical manpower planners with a full scope of information concerning both the supply and demand areas. This system should contain accurate and up-to-date

information realtive to occupational requirements, manpower needs, graduates, enrollments, occupational training capacity and location, technical employees and their nationality, and net demand.

d. Vocational Guidance Department: Based upon the technical occupation and training information system, vocational guidance centers should be established to provide students and the technical job seeker with vital information about technical trades, requirements and trends, as well as technical program available. All concerned agencies should be considered in order that vocational information would reach people all over the Kingdom, regardless of their place of residence. Vocational Guidance Programs should lead each student and job seeker to choose the right direction for his occupation and future life, giving full consideration to his desires, ability, and capability.

e. Follow-up Department: A follow-up program should be implemented in order to keep abreast with the technical manpower program. This department would keep in contact with their graduates, having complete records of technical job placements. This program should lead to a Technical Programs Department which would provide graduates with specific or advanced skills needed in accordance with their jobs. Also, this program should lead concerned departments to adjust their curriculum and to emphasize the most needed skills.

f. Evaluation Department: An evaluation department for Technical Training Programs should be established. The task of this department is to evaluate all technical training programs, students, and involved personnel.

2. Commercial Education - Commercial Education should be integrated into the Institute of Public Administration. All activities concerning commercial education, its curriculum, and various other aspects, should be adjusted and combined with the Institute of Public Administration role and function.

3. All other governmental Technical Training programs should be under the supervision of the New Technical Training Department and subject to its decisions. All of these programs should be under close study as to their relationship and integration.

4. A temporary committee should be set up to open the door for the former and future graduates of the technical secondary level so that they will be encouraged to continue their college education, if they wish, in a related area. This committee should include members from the Technical Training Agency, Colleges of Agriculture, Engineering, Science, Business and Administration.

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APPENDIX A

LETTER OF INTRODUCTION IN ENGLISH AND ARABIC

Kingdom of Saudi Arabia
Ministry of Defense & Aviation
Royal Saudi Air Force
King Faisal Air Academy
Com. Office

In his Doctoral Dissertation, Captain Abdullah Saleh Al-Obaid attempts to research in the field of human resources development in the Kingdom of Saudi Arabia. He is in need of all related information with reference to planning, reports, studies and statistics related to that area. He is looking forward to your help and cooperation by providing him with this needed information for his research. It is his hope that this data will contribute something of value toward the improvement of human resources development for the Kingdom both now and in the future, particularly in the field of technical manpower.

Thank you for your cooperation and with my very best wishes, I am

Sincerely yours,

Muhammed Sabri
Major-General
Commandant
King Faisal Air Academy

Date: February 27, 1979

بسم الله الرحمن الرحيم

المملكة العربية السعودية
وزارة الدفاع والطيران والمفتشية العامة
القوات الجوية الملكية السعودية
كلية الملك فيصل الجوية
المكتب

مصنع القوات المسلحة ٩٦

الرقم : ١١/٨٠٤٥
التاريخ : ١٤١٠/٤/٢٧هـ
المرفقات : —

الموضوع : طلب مساعدة باحث في مجال التنمية البشريه في المملكه

المكرم سعادة

السلام عليكم ورحمة الله وبركاته :

نظرا لان النقيب عبدالله الصالح العبيد يقوم ببحث عن الطاقة البشريه في المملكة كجزء من برنامج دراسته لمرحلة الدكتوراه وانه يحتاج الى الاطلاع على الخطط والانجازات والتقارير التى ساهمت فيها ادارتكم فى هذا المجال وكذلك تقارير المتابعة والاحصائيات الخاصة بالطاقة البشريه ومجالات التعليم والتدريب ، فان المذكور لايستغنى عن مساعدتكم فى تسهيل مهمته وذلك بتعميد الجهات المسئولة لديكم عن التدريب والقوى العامله بالتعاون مع المذكور فى تهيئة وتوفير المعلومات اللازمة للبحث الذى يرجو ان يساهم فى تسليط الضوء على هذا الموضوع فى هذه المرحلة من مراحل النمو والتطور التى تعيشها المملكة والعمل على تحديد بعض المعالم لمستقبل التنمية البشرية فيها وخاصة فى المجالات الفنية منها .

شاكرين تعاونكم ولكم خالص تحياتى ،،،،

اللواء طيار ركن
محمد صبيرى
قائد كلية الملك فيصل الجويه

APPENDIX B

LETTER OF TRANSMITTAL AND QUESTIONNAIRE IN ENGLISH AND ARABIC TO STUDENTS

FORM NO. 1

A QUESTIONNAIRE ON THE PRESENT AND FUTURE SITUATION REGARDING THE DEVELOPMENT OF MANPOWER IN THE KINGDOM OF SAUDI ARABIA

Dear Student,

This questionnaire, which is a part of the research I am now undertaking on the students in all fields of technical education. The questionnaire is divided into two parts. The first deals with the means that influenced the decision of students to choose their subject or trade and their knowledge of their future prospects; the second deals with the evaluation of training in the institution from the students' point of view.

I request you to participate whole-heartedly in this questionnaire. I assure you that your honest and specific answers will have a great bearing on the effectiveness of this research which I hope will in turn be beneficial to our country and contribute to its development.

I also guarantee that your answers will be kept confidential and that they will not be used for any purpose other than the research I have undertaken. You have full liberty to mention or delete your name on the form.

Thanking you for your kind co-operation.

Sincerely yours,

(ABDULLAH S. AL-OBAID)
King Faisal Air Academy,
P.O. Box 2973, Riyadh

Date: - 1.5.1399A.H.(29.3.1979A.D.)

NOTES

1. Please do not hesitate to contact me if you are interested in having a copy of the result of this study.
2. Please use (✓) sign to answer the questions or write full answer as you feel necessary.

QUESTIONNAIRE
FOR
TECHNICAL EDUCATION STUDENTS
INDUSTRIAL/COMMERCIAL AND AGRICULTURE

Name: _____ (Optional)

Area of Study: Commercial: _____ Industrial: _____ Agricultural: _____

Speciality: _____
(Be specific please)

Year of Graduation _____
(Be specific please)

PART ONE: _____

1. How did you come to know about your Area of Study:

   Please check which of the following is most appropriate:

   (a) Guardian/Relative _____
   (b) Counselor _____
   (c) Colleague/Friend _____
   (d) Newspapers/Magazines _____
   (e) Publications/Wall-posters _____
   (f) Curriculum Orientation _____

2. If your answer to Question No. 1 is either (a), (b), or (c), then state (check) which of the remaining, i.e., (d), (e), or (f) had direct influence upon it.

   (d)_____ (e)_____ (f)_____

3. Which of the following factors influenced your decision to select your specialty?

   (a) Personal desire _____
   (b) Guardian's desire _____
   (c) Non-availability of first choice _____
   (d) Lack of interest in University Education _____
   (e) Nearness of the Institution to your place of residence _____

4. From your personal knowledge, how would you evaluate the following aspects of your future employment?

	Good	Satisfactory	Unsatisfactory
(a) Salaries & wages	____	_____	_____
(b) Work & conditions	____	_____	_____
(c) Terms & working hours	____	_____	_____
(d) Duties & responsibilities	____	_____	_____
(e) Efficiency and capabilities required for work.	____	_____	_____
(f) Academic advance & training requirement.	____	_____	_____
(g) Allowances & scale of promotions.	____	_____	_____

5. Which of the following would prefer to work for?

(a) Public Civil Service	____
(b) Military Service	____
(c) A Private Company	____
(d) Any other reason?	____

PART TWO: _____

EVALUATION OF TRAINING

	Exclt.	Good	Satisfactory	Unsatisfactory
1. How would you evaluate training in your institute?	_____	____	_____	_____
2. What is your evaluation of the of the equipment/training aids used in the institute?	_____	____	_____	_____
3. How would you evaluate your instructors' efficiency?	_____	____	_____	_____
4. What is your evaluation of your instructors' knowledge in their subjects?	_____	____	_____	_____
5. What is your evaluation of the instructors' enthusiasm and devotion to their jobs?	_____	____	_____	_____

بسم الله الرحمن الرحيم

الموضوع : استبيان حول واقع ومستقبل تنمية الطاقة البشريه في المملكة العربية السعوديـــه .

شكل رقم (١)

عزيزي المستفتى :

السلام عليكم ورحمة الله وبركاته ... وأسأل الله لكم التوفيق الدائم وبعد :

يهدف هذا الاستفتاء كجزء من البحث الذي أقوم باعداده عن البرامج والاحتياجات الخاصة بالطاقة البشرية الفنية في المملكة الى تسليط الضوء على عنصر الطالب فـــي مختلف فروع التعليم الفني وينقسم الاستفتاء الى قسمين الاول ويتعلق بالتعرف علـــى الوسائل ذات التأثير في اختيار الطالب لتخصصه ومدى معلوماته عن مستقبله الوظيفـــي والثاني يهدف الى التعرف على مدى تقييم الطالب لمستوى التدريب في المعهد .

وأنني اذ ارجو مساهمتكم في الاجابة على هذا الاستفتاء لأؤكد لكم ان لاهتمامكم ودقة اجابتكم تأثير هام على فاعلية الدراسة التي نرجو ان تعود بالخير والمنفعة علـــى مستقبل بلادنا كماتساهم مساهمة فعالة في حركة النمو والتطور التي تمر بها .

وثقوا بان اجابتكم ستكون موضع الامانة وعدم الاستفادة منها لغير اغراض هـــذه الدراسة على ان لكم الحق في ذكر اسمكم وعدمه . وشكرا سلفا لتعاونكم .

المخلص

عبدالله الصالح العبيد
كلية الملك فيصل الجوية
الرياض / ص.ب ٢٩٧٣

١٤٠٩/٥/١٦

ملحوظات :

١/ اذا رغبتم في الحصول على نسخة من نتائج الدراسة عند انتهائها فارجو الاتصال بي .
٢/ عند الاجابة ارجو وضع هذه العلامة (✓) فـــي المكان المناسب وملء مايحتاج الى اجابة مفصلة .

بسم الله الرحمن الرحيم

استفتاء خاص بطلبة التعليم الفني والصناعي
والتجاري والزراعي حول التوجيه المهني -
وتقييم التدريب .

الاسم : (اختياري)

الفرع : تجاري ☐ صناعي ☐ زراعي ☐

التخصص : (حدد من فضلك) الفصل : أولى ☐ ثانيه ☐ ثالثة ☐

أولا : الاختيار والتوجيه المهني :

١) أى الوسائل التاليه كان له أكبر تأثير في تعرفك على المعهد (اجب بواحدة فقط) .

أ/ ولي أمرك أو أحد اقاربك ..... ☐
ب/ موجه تربوى ..... ☐
ج/ زميل أوصديق ..... ☐
د/ اذاعه أو تلفاز ..... ☐
هـ/ صحف ومجـــلات ..... ☐
و/ نشرات ولصقات حائطيه ..... ☐
ز/ المنهج الدراســـى ..... ☐

٢) اذا كانت الاجابه من السؤال السابق بأ ..أوب ... أو ج فأى الجهات المتبقية تعتقد انه قد كان لها تأثير مباشر على مصـــــــدر معلوماتك .

ب ☐ هـ ☐ و ☐ ز ☐

٣) ماهي أكثر العناصر التالية تأثيرا على اختيارك تخصصك ؟ (اجب بواحدة فقط)

أ/ رغبة شخصية في التخصص ..... ☐
ب/ رغبة ولي أمرك ..... ☐
ج/ عدم توفر التخصص الذى تفضله بالدرجة الاولى ..... ☐
د/ عدم الرغبة في مواصلة التعليم الجامعي ..... ☐
هـ/ وجود المعهد قريبا من مقر سكنك ..... ☐

٤) مامدى تقديرك لمعلوماتك ومعرفتك بمستقبلك الوظيفي من حيث :

	جيده	مناسبة	غير كافيه
أ/ الرواتب والاجور	☐	☐	☐
ب/ ظروف العمل	☐	☐	☐
ج/ اوقات العمل	☐	☐	☐
د/ واجبات ومسئوليات العمل	☐	☐	☐
هـ/ الكفاءة والقدرات الشخصية المطلوبة	☐	☐	☐
و/ التعليم والتدريب المطلوبين	☐	☐	☐
ز/ سلم العلاوات والترقيات	☐	☐	☐

(اقلب الصفحه من فضلك)

٥) ماهى الجهة التى ترغب العمل بها بعد التخرج ؟

أ/ القطاع الحكومى المدنى ..... ☐
ب/ القطاع الحكومى العسكرى ..... ☐
ج / القطاع الاهلـــــــى ..... ☐

د / أخـــــرى ..... ☐ حددها من فضلـــك

ثانيا : تقييم التدريب :

	ممتاز	جيد	مناسب	غير مناسب
١) ماهى درجة تقييمك لمستوى التدريب الذى تلقيته فى المعهد ؟	☐	☐	☐	☐
٢) ماهى درجة تقييمك لمستوى المعدات والوسائل المستخدمة فى التدريب ؟	☐	☐	☐	☐
٣) ماهى درجة تقييمك لمستوى كفاية المدرب ؟	☐	☐	☐	☐
٤) ماهى درجة تقييك لمستوى معلومات المدرب؟	☐	☐	☐	☐
٥) ماهى درجة تقييمك لمدى رغبة وحماس المدرب ؟	☐	☐	☐	☐

انتهـــــى

APPENDIX C

LETTER OF TRANSMITTAL AND QUESTIONNAIRE IN ENGLISH AND ARABIC TO GRADUATES

FORM NO. 2

A QUESTIONNAIRE ON THE PRESENT AND FUTURE SITUATION REGARDING THE DEVELOPMENT OF MANPOWER IN THE KINGDOM OF SAUDI ARABIA

Dear

This questionnaire, which is a part of the research I am now undertaking on the programmes, plans and requirements of technical manpower in the Kingdom, aims at throwing light upon the graduates of the Saudi technical institutions and discovering the present situation and achievements of technical education from your point of view, in the light of your own experience. The questionnaire is divided into two parts: The first deals with vocational guidance and job situation; the other deals with evaluation of training.

I request you to participate wholeheartedly in this questionnaire. I assure you that your honest and specific asnwers will have a great bearing on the effectiveness of this research which I hope will in turn be beneficial to our country and contribute to its development.

I also guarantee that your answers will be kept confidential and that they will not be used for any purpose other than the research I have undertaken. You have full liberty to mention or delete your name on the form.

Thanking you for your kind cooperation.

Sincerely yours,

(ABDULLAH S. AL-OBAID)
King Faisal Air Academy,
P.O. Box 2973, Riyadh

Date: 1.5.1399H (29.3.1979AD)

NOTES:

1. Please do not hesitate to contact me if you are interested in having a copy of the result of this Study.
2. Please use (✓) sign to answer the questions or write full answers as you feel necessary.

FOLLOW-UP QUESTIONNAIRE

FOR
GRADUATES FROM INSTITUTIONS
OF TECHNICAL EDUCATION

INDUSTRIAL/COMMERCIAL

Name: _____ (Optional)

Area of Study: Commercial Industrial

Specialty: _____
(Be specific please)

Year of Graduation: _____
(Be specific please)

PART ONE:

1. How did you come to know about your area of study? Please check which of the following is the most appropriate.

   (a) Guardian/Relative? _____

   (b) Counsellor? _____

   (c) Colleague/Friend? _____

   (d) Newspapers/Magazines? _____

   (e) Publications/Wall-posters? _____

   (f) Curriculum Orientation ? _____

2. If your answer to question No. 1, is either (a) or (b) or (c), then state (check) which of the remaining i.e. (d), or (e) or (f) had direct influence upon it?

   D E F

3. Which of the following factors influenced your decision to select your specialty?

   (a) Personal Desire? _____

   (b) Guardian's Desire? _____

   (c) Non-avilability of First Choice? _____

   (d) Lack of Interest in University Education? _____

   (e) Nearness of the Institution to your place of residence? _____

4. From your personal knowledge, how would you evaluate the following aspects of your employment?

	Good	Satis-factory	Unsatis-factory
(a) Salaries and Wages?	____	_____	_____
(b) Work Conditions?	____	_____	_____
(c) Terms & Working Hours?	____	_____	_____
(d) Duties and Responsibilities?	____	_____	_____
(e) Efficiency and Capabilities required for Work?	____	_____	_____
(f) Advance Academic and Training Requirements?	____	_____	_____
(g) Allowances and Scale of Promotions?	____	_____	_____

5. Through which of the following did you get your present work?

(a) Civil Service Bureau? ____

(b) Labour Office? ____

(c) Military Service? ____

(d) A Private Company? ____

(e) A Friend/Relative? ____

6. Check any of the following which is most appropriate to your evaluation?

(a) My present work falls within the field of my speciality. ____

(b) My present work is closely related to my field of speciality. ____

(c) My present work has no relation to my field of speciality. ____

7. If your answer to Question No. 6 is (c), would you please check the most appropriate reasons from amongst the following: -

(a) Personal desire not to work in the field of my speciality. ____

(b) Personal desire of the employer not to allow me to work in the field of my speciality. ____

(c) Change of employer resulting in change of trade. ____

(d) Any other reason (Please be specific). ____

PART TWO:

Evaluation of Training:

	Excellent	Good	Satisfactory	Unsatisfactory
1. How would you evaluate training in your former Institute?	____	____	____	____
2. What is your evaluation of the equipment/training aids used in the institute?	____	____	____	____
3. How would you evaluate your former instructors' efficiency?	____	____	____	____
4. What is your evaluation of your instruc-or's knowledge of their subjects?	____	____	____	____
5. What is your evaluation of your instructors' enthusiasm and devotion in their jobs?	____	____	____	____

بسم الله الرحمن الرحيم

الموضوع : استبيان حول واقع ومستقبل
تنمية الطاقة البشرية في المملكة
العربية السعوديــــة .

شكل رقم (٢)

عزيــزي المستفتي :

السلام عليكم ورحمة الله وبركاته .. وأسأل الله لكم التوفيق الدائم وبعد ؛

يهدف هذا الاستفتاء كجزء من البحث الذي أقوم باعداده عن البرامج والاحتياجات بالطاقة البشرية الفنية في المملكة - الى تسليط الضوء على خريجي المعاهد الفنية للتعرف على واقع وآثار التعليم الفني من خلال خبرتهم وتجربتهم .. وينقسم الأستفتاء الى قسمين . الاول ويبحث في مجال التوجيه والاختيار المهني وعلاقة العمل الحالـــــي بالتخصص ، الثاني ويتعلق بتقييم التدريب .

وأنني اذ ارجو مساهمتكم في الاجابة على هذا الاستفتاء لأؤكد لكم ان لاهتمامكم ودقة اجابتكم تأثير هام في فاعلية الدراسة التي نرجوان تعود بالخير والمنفعـــــة على مستقبل بلادنا كماتساهم مساهمة فعالة في حركة النمو والتطور التي تمر بها .

وثقوا بان اجابتكم ستكون موضع الامانة وعدم الاستفادة منها لغير اغراض هـــــذه الدراسة على ان لكم الحق في ذكر اسمكم وعدمه . وشكرا سلفا لتعاونكم .

المخلـــص

١/٥/١٣٩٩هـ

عبدالله الصالح العبيد
كلية الملك فيصل الجوية
الرياض / ص . ب ٢٩٧٣

ملحوظـــات :

١/ اذا رغبتم في الحصول على نسخة من نتائج الدراسة عند انتهائها .. فارجو الاتصال بي .

٢/ عند الاجابة ارجو وضع العلامة (✓) في المكان المناسب وملء مايحتاج الى اجابة مفصلة .

بسم الله الرحمن الرحيم

استفتاء متابعة لخريجى التعليم الفنى الصناعى والتجارى

الاسم : (اختيارى)

الفرع : تجارى ☐ صناعى ☐ زراعى ☐

التخصص : (حدد من فضلك) سنة التخرج : (حدد من فضلك)

أولا : الاختيار والتوجيه المهنى :

١) اى الوسائل التالية كان لها اكبر تأثير فى تعرفك على المعهد (أجب بواحدة فقط)

أ/ ولى أمرك أو احد اقاربك ..... ☐
ب/ موجه تربوى ..... ☐
ج / زميل أو صديق ..... ☐
د / اذاعه أو تلفاز ..... ☐
هـ/ صحف أو مجلات ..... ☐
و/ نشرات وملصقات حائطيه ..... ☐
ز/ المنهج الدراسى ..... ☐

٢) اذا كانت الاجابة عن السؤال السابق بأ .. أو ب .. أو ج فأى الجهات المتبقية تعتقد انه قد كان لها تأثير مباشر على مصدر معلوماتك ؟

د ☐ هـ ☐ و ☐ ز ☐

٣) ماهى أكثر العناصر المثالية تأثيرا على اختيارك تخصصك ؟ (أجب بواحدة فقط)

أ/ رغبة شخصية فى التخصص ..... ☐
ب/ رغبة ولى أمرك ..... ☐
ج / عدم توفر التخصص الذى تفضله بالدرجة الاولى ..... ☐
د / عدم الرغبة فى مواصلة التعليم الجامعى ..... ☐
هـ/ وجود المعهد قريبا من مقر سكنك ..... ☐

٤) مامدى تقديرك لمعلوماتك ومعرفتك بمستقبلك الوظيفى من حيث :

	جيده	مناسبة	غير كافية
أ/ الرواتب والاجور	☐	☐	☐
ب/ ظروف العمل	☐	☐	☐
ج / اوقات العمل	☐	☐	☐
د / واجبات ومسئوليات العمل	☐	☐	☐
هـ/ الكفاءة بالقدرات الشخصيه المطلوبة	☐	☐	☐
و/ التعليم والتدريب المطلوبين	☐	☐	☐
ز/ سلم العلاوات والترقيات	☐	☐	☐

(اقلب الصفحة من فضلك)

٥) الشخص أو الجهه التى ساعدتك بصفة اساسية فى الحصول على الوظيفة :

أ/ ديوان الخدمة المدنية ..... ☐
ب/ مكتب العمـــل ..... ☐
ج / جهة عسكريـــة ..... ☐
د / شركة (قطاع خاص) ..... ☐
هـ/ صديق أو قريب ..... ☐

٦) العمل الحالـــى :

أ/ على الحالى فى نفس تخصصى ..... ☐
ب/ على الحالى قريب من تخصصى ..... ☐
ج / على الحالى لاعلاقة له بتخصصى ..... ☐

٧) اذا كانت الاجابة المختارة (ج) العمل الحالى لاعلاقة له بالتخصص فالسبب فى الغالب يرجع الى :

أ/ عدم رغبتى فى العمل فى تخصصى ..... ☐
ب/ عدم رغبة صاحب العمل فى ان اعمل فى تخصصى ..... ☐
ج / انتقال مسئولية العمل الى جهة اخرى ..... ☐
د / ظروف أخرى ..... ☐ حددها من فضلـــك

ثانيا : تقييم التدريب :

	ممتاز	جيد	مناسب	غير مناسب
١) ماهى درجة تقييمك لمستوى التدريب الذى تلقيته فى المعهد ؟	☐	☐	☐	☐
٢) ماهى درجة تقييمك لمستوى المعدات والوسائل المستخدمة فى التدريب ؟	☐	☐	☐	☐
٣) ماهى درجة تقييمك لمستوى كفاية المدرب ؟	☐	☐	☐	☐
٤) ماهى درجة تقييمك لمستوى معلومات المدرب؟	☐	☐	☐	☐
٥) ماهى درجة تقييمك لمدى رغبة وحماس المدرب ؟	☐	☐	☐	☐

انتهـــى

APPENDIX D

LETTER OF TRANSMITTAL AND QUESTIONNAIRE

IN ENGLISH AND ARABIC TO EMPLOYERS

FORM NO. 3

A QUESTIONNAIRE ON THE PRESENT AND FUTURE SITUATION REGARDING THE DEVELOPMENT OF MANPOWER IN THE KINGDOM OF SAUDI ARABIA

Dear

This questionnaire, which is a part of the research I am now undertaking on evaluation of the level of efficiency of the graduates of technical education institutions and evaluation of training programmes of Industrial and Commercial education.

I request you to participate wholeheartedly in this questionnaire. I assure you that your honest and specific answers will have a great bearing on the effectiveness of this research which I hope will in turn be beneficial to our country and contribute to its development.

I also guarantee that your answers will be kept confidential and that they will not be used for any purpose other than the research I have undertaken. You have full liberty to mention or delete your name on the form.

Thanking you for your kind cooperation.

Sincerely yours,

(ABDULLAH S. AL-OBAID)
King Faisal Air Academy,
P.O. Box 2973, Riyadh

Date: 1.5.1399H (29.3.1979AD)

NOTES:

1. Please do not hesitate to contact me if you are interested in having a copy of the result of this Study.
2. Please use (✓) sign to answer the questions or write full answers as you feel necessary.

A QUESTIONNAIRE FOR THE TRADESMEN GRADUATED FROM TECHNICAL EDUCATION INSTITUTIONS

Name of Establishment: _____ (Optional)

Government Civil Service _____ Military Service _____

PART ONE:

Evaluation of Employees working in/within their own Speciality:

	Good	Satis-factory	Unsatis-factory
1. How would you evaluate the efficiency of the graduate in respect of quality of achievements?	____	_____	_____
2. How would you evaluate the efficiency of the graduate in respect of quantity of achievements?	____	_____	_____
3. How would evaluate the devotion and interest of the graduate in his work?	____	_____	_____
4. How would you evaluate the devotion and interest of the graduate to increase his knowledge of the speciality?	____	_____	_____
5. How would you evaluate the level of co-operation of the graduate with his colleagues (others)?	____	_____	_____
6. How would you evaluate the level of cooperation of the graduate in general?	____	_____	_____

PART TWO:

Evaluation of Programmes and Training:

1. How would you evaluate the level of programmes of ITdustrial training in the Kingdom?	____	_____	_____
2. How would you evaluate the level of programmes of Commercial education training in the Kingdom?	____	_____	_____

		Yes	No
3.	Do you think that the specialities available in the field of industrial education are parallel to those of development requirements in the Kingdom?	___	___
4.	If your answer to Question No. 3 is (No) what are the specialities which should take priority on all others? _____		
	_____		
	_____		
	_____		
5.	Do you think that the specialities available in the field of Commercial education are planned with the requirement of development in the Kingdom?	___	___
6.	If your answer to Question No. 5 is (No), what are the specialities that should take priority? _____		
	_____		
	_____		
7.	Do you have any (OJT) programmes for graduates of Industrial education institutions?	___	___
8.	Do you have any OJT programmes for graduates of Commercial education instutitions?	___	___
9.	Are you satisfied with level of efficiency of the graduates of Industrial Education Institutions?	___	___
10.	Are you satisfied with level of efficiency of the graduates of Commercial Education Institutions?	___	___

بسم الله الرحمن الرحيم

الموضوع : استبيان حول واقع ومستقبل تنمية الطاقه البشريه فى المملكة العربية السعوديـــه

شكل رقم (٣)

عزيزى المستفتى :

السلام عليكم ورحمة الله وبركاته وأسأل الله لكم التوفيق الدائم وبعد :

يهدف هذا الاستفتاء كجزء من البحث الذى أقوم باعداده عن البرامج والاحتياجات الخاصة بالطاقه البشريه الفنية فى المملكة الى تسليط الضـــو على واقع تقييم مستوى كفاية خريجى معاهد التعليم الفنى بالقسم الاول منه وكذا تقييم برامج التدريب الخاصة بكل من التعليم الصناعى والتجارى فـــى المملكة فى القسم الثانى منه .

وأننى اذ أرجو مساهمتكم فى الاجابة على هذا الاستفتاء لأؤكد لكم ان لاهتمامكم ودقة اجابتكم تأثير هام على فاعلية الدراسة التى نرجو ان تعـــود بالخير والمنفعة على مستقبل بلادنا كما تساهم مساهمة فعالة فى حركـــــة النمو والتطور التى تمر بها .

وثقوا بان اجابتكم ستكون موضع الامانة وعدم الاستفادة منها لغير اغراض هذه الدراسة على ان لكم الحق فى ذكر اسمكم وعدمه . وشكرا سلفـــــا لتعاونكم .

المخلص

عبدالله الصالح العبيـــد
كلية الملك فيصل الجويـــه
الرياض - ص . ب ٢٩٧٣

٢٩٩/٥/١ هـ

ملحوظـات :

١/ اذا رغبتم فى الحصول على نسخة من نتائج الدراسة عند انتهائها ... فارجو الاتصال بى .

٢/ عند الاجابة ، أرجو وضع هذه العلامه (✓) فى المكان المناسب وملء مايحتاج الى اجابة مفصلة .

بسم الله الرحمن الرحيم

استفتاء لاصحاب العمل عن خريجى معاهد التعليم الفنى

أسم المؤسسة : (اختيارى) .....

قطاع حكومى مدنى ☐ قطاع حكومى عسكرى ☐ قطاع اهلى ☐

أولا : تقييم العاملين :

	ممتاز	جيد	مقبول	ضعيف	غير مقبول
تقييم الخريجين العاملين فى تخصصاتهم أو قريب منها :					
١/ ماهى درجة تقييمك لمستوى كفاية الخريج فى نوعية الانتاج	☐	☐	☐	☐	☐
٢/ ماهى درجة تقييمك لمستوى كفاية الخريج فى كمية الانتاج	☐	☐	☐	☐	☐
٣/ ماهى درجة تقييمك لمستوى رغبة واقبال الخريج على العمل	☐	☐	☐	☐	☐
٤/ ماهى درجة تقييمك لمستوى رغبة الخريج فى تطوير معلوماته	☐	☐	☐	☐	☐
٥/ ماهى درجة تقييمك لمستوى تعاون الخريج مع الاخرين	☐	☐	☐	☐	☐
٦/ ماهى درجة تقييمك لمستوى الخريج على وجه العموم	☐	☐	☐	☐	☐

ثانيا : تقييم البرامج والتدريب :

١/ ماهى درجة تقييمك لمستوى البرامج التى يقدمها التعليم الصناعى فى المملكة	☐	☐	☐	☐	☐
٢/ ماهى درجة تقييمك لمستوى البرامج التى يقدمها التعليم التجارى فى المملكة	☐	☐	☐	☐	☐
٣/ هل تعتقد ان التخصصات المتوفرة فى مجال التعليم الصناعى متشية مع احتياجات التنمية فى المملكة					
.....			نعم ☐ لا ☐		
٤/ اذا كانت الاجابة (لا) فماهى التخصصات التى تعتقد انه يجب الاهتمام بها ؟					

(اقلب الصفحة من فضلك)

٥/ هل تعتقد ان التخصصات المتوفرة فى مجال التعليم التجارى متشية مع احتياجات التنمية فى المملكة ؟ ..... نعم☐ لا☐

٦/ اذا كانت الاجابة (لا) فماهى التخصصات التى تعتقد انه يجب الاهتمام بها ؟ .....

٧/ هل لديكم برامج تدريب على رأس العمل لخريجى معاهد التعليم الصناعـــــى ؟ ..... ☐ ☐

٨/ هل لديكم برامج تدريب على رأس العمل لخريجى معاهد التعليم التجا رى ؟ ..... ☐ ☐

٩/ هل انتم مقتنعون من كفاية ومستوى خريجى المعاهـــد الصناعية ؟ ..... ☐ ☐

١٠/ هل انتم مقتنعون من كفاية ومستوى خريجى المعاهـــد التجاريه ؟ ..... ☐ ☐

APPENDIX E

LETTER OF TRANSMITTAL AND QUESTIONNAIRE IN ENGLISH AND ARABIC TO CONCERNED PERSONNEL IN TECHNICAL EDUCATION AND MANPOWER DEVELOPMENT

FORM NO. 4

A QUESTIONNAIRE ON THE PRESENT AND FUTURE SITUATION REGARDING THE DEVELOPMENT OF MANPOWER IN THE KINGDOM OF SAUDI ARABIA

Dear

This questionnaire, which is a part of the research I am undertaking on problems facing the development of manpower in the Kingdom. This questionnaire is divided into two parts: The first deals with the problems facing the development of the technical manpower wile the second deals with problems facing the technical education.

I request you to participate wholeheartedly in this questionnaire. I assure you that your honest and specific answers will have a great bearing on the effectiveness of this research which I hope will in turn be beneficial to our country and contribute to its development.

I also guarantee that your answers will be kept confidential and that they will not be used for any purpose other than the research I have undertaken. You have full liberty to mention or delete your name on the form.

Thanking you for your kind cooperation.

Sincerely yours,

(ABDULLAH S. AL-OBAID)
King Faisal Air Academy,
P.O. Box 2973, Riyadh

Date: 1.5.1399H (29.3.1979AD)

NOTES:

1. Please do not hesitate to contact me if you are interested in having a copy of the result of this study.
2. Please use (✓) sign to answer the questions or write full answers as you feel necessary.

A QUESTIONNAIRE FOR TRADESMEN GRADUATED
FROM TECHNICAL EDUCATION INSTITUTIONS

Name: _____ (Optional)

PART ONE:

Problems Facing the Growth and Development of Manpower in the Kingdom of Saudi Arabia

1. What are the effects of the following factors which form obstacles on the way of the development for technical manpower in the Kingdom?

	Very Effective	Effective	Not Effective
(a) Shortage of Saudi technical manpower.	_____	_____	_____
(b) Shortage of non-Saudi technical manpower.	_____	_____	_____
(c) Underutilizing the available manpower Saudi and Non-Saudi.	_____	_____	_____
(d) No connection between the academic programmes and the requirements of the development in respect of types of programmes.	_____	_____	_____
(e) No connection between the academic programmes and the requirements of the developments in respect of levels of education or training.	_____	_____	_____
(f) No connection between the academic programmes and the requirement of development in respect of the required numbers of trainees.	_____	_____	_____
(g) No coordination between academic and training programmes in technical areas.	_____	_____	_____
(h) Administrative jobs are occupied by great number of technical specialists.	_____	_____	_____
(j) Lack of financial and administrative experience in the fields of technical training and education.	_____	_____	_____

2. Supposing that the growth and development of technical manpower in the Kingdom in respect of:
   (a) Non-avilability of the desired or required numbers.
   (b) Achievement of efficiency level by the required numbers.
   (c) The percentage of non-utility of technicians is 100% - what percentage would you give to each of the following:
      i) Non-availability of the required numbers of technical training staff. _____%

ii) Non-availability of the quantities and capabilities required. _____%

iii) Non-utility of the numbers and capabilities required. _____%

PART TWO:

Problems Facing Technical Education

From your point of view what are the effects of the following factors which form obstacles on the way of technical education in the Kingdom?

	Very Effective	Effective	Not Effective
1. Students' Problems:			
(a) Non-availability of the required number of students in technical education.			
(b) Student not choosing the right trade suitable for him.			
(c) Students desire to obtain higher levels of education.			
(d) Non-availability of vocational guidance of students.			
2. Social Problems:			
(a) Non-appreciable of society of the vocational and technical jobs.			
(b) Greater or heavy demand on the unskilled labour.			
3. Admin. & Financial Problems:			
(a) Lack of administrative experience.			
(b) Non-availability of funds required.			
(c) Shortcomings of admin. regulations and routinism.			
(d) Shortcomings of financial regulations and routinism.			
(e) Non-availability of publicity about institutions.			
4. Training Problems:			
(a) Non-availability of instructors required.			
(b) Shortcomings and inefficiency of syllabii.			
(c) System of evaluation of educational training do not help to achieve good quality and efficiency.			

بسم الله الرحمن الرحيم

الموضوع : استبيان حول واقع ومستقبل
تنمية الطاقة البشريه في
المملكة العربية السعوديه

عزيزي المستفتى : شكل رقم (٤)

السلام عليكم ورحمة الله وبركاته .. وأسأل الله لكم التوفيق الدائم وبعد :

يهدف هذا الاستفتاء-كجزء من البحث الذى أقوم باعداده عن البرامج والاحتياجات الخاصة بالطاقة البشريه الفنيه فى المملكة - الى تسليط الضوء على بعض المشاكل التى تواجه تنمية الطاقة البشرية فى المملكة وينقسم الاستفتاء الى قسمين ، الاول يتعلق بالمشاكل التى تواجه تنمية الطاقة البشرية الفنية فى المملكة ، الثانى ويتعلق ببعض المشاكل التى تواجه التعليم الفنى .

وأننى اذا أرجو مساهمتكم فى الاجابة على هذا الاستفتاء لأؤكد لكم انلاهتمامكم ودقة اجابتكم تأثير هام على فاعلية الدراسة التى نرجو ان تعود بالخير والمنفعة على مستقبل بلادنا كماتساهم مساهمة فعالة فى حركة النمو والتطور التى تمر بها . وثقوا بان اجابتكم ستكون موضع الامانة وعدم الاستفادة منها لغير اغراض هذه الدراسة على ان لكم الحق فى ذكر اسمكم وعدمه . وشكرا سلفا لتعاونكم .

المخلص

عبدالله الصالح العبيد
كلية الملك فيصل الجويه
الرياض / ص.ب ٢٩٧٣

P١٢٩٩/٥/١

ملحوظات :

١/ اذا رغبتم فى الحصول على نسخة من نتائج الدراسة عند انتهائها ، فأرجو الاتصال بى .

٢/ عند الاجابة ارجو وضع هذه العلامه (✓) فى المكان المناسب وفى مايحتاج الى اجابة مفصلة

بسم الله الرحمن الرحيم

استفتاء العاملين في حقل التعليم الفني وتنمية الطاقة البشرية في المملكة العربية السعودية

الاسم : (اختياري)

الجهة : ..... الوظيفة : .....

أولا : مشاكل تواجه تنمية وتوفير الطاقة البشرية في المملكة :

(١) ما مدى تأثير العوامل التالية من وجهة نظركم كمعوقات في طريق تنمية الطاقة البشرية الفنية في المملكة ؟

		بالغ التأثير	قوي التأثير	غير قوي	غير مؤثر
أ/	قلة اليد الفنية العاملة السعودية	☐	☐	☐	☐
ب/	قلة اليد الفنية العاملة غير السعودية	☐	☐	☐	☐
ج/	عدم الاستفادة من الايدي العاملة المتوفرة سعوديه وغير سعودية	☐	☐	☐	☐
د/	عدم ربط البرامج التعليمية بمتطلبات التنمية من حيث نوعية البرامج	☐	☐	☐	☐
و/	عدم ربط البرامج التعليمية بمتطلبات التنمية من حيث المستوى التعليمي والتدريبي	☐	☐	☐	☐
هـ/	عدم ربط برامج التعليم بمتطلبات التنمية من حيث الاعداد المطلوبة	☐	☐	☐	☐
ز/	عدم التنسيق بين برامج التعليم والتدريب في المجالات الفنية	☐	☐	☐	☐
ح/	استحواذ الاعمال الادارية على اعداد كبيرة من الطاقة البشرية الفنية المتخصصة	☐	☐	☐	☐
ط/	عدم توفر المعرفة والخبرة العالية والادارية في حقول التعليم والتدريب الفني	☐	☐	☐	☐

(٢) لنفترض ان مشكلة نمو وتنمية الطاقة البشرية الفنية في المملكة من حيث :

أ/ عدم توفر الاعداد المطلوبة .

ب/ تحقيق مستوى الكفاية لدى الاعداد المطلوبة .

ج/ عدم الاستفادة من الاعداد المتخصصة تمثل ١٠٠٪ .. ماهي نسبة توزيع المسئولية لكل فئة في نظرك :

(اقلب الصفحة من فضلك)

أ/ عدم توفير الاعداد المطلوبة من الجهات التعليمية التدريبية تمثل ٪
ب/ عدم توفير القدرات والنوعية المطلوبة ..... تمثل ٪
ج/ عدم الاستفادة من الاعداد والقدرات المتوفرة من الجهات تمثل ٪

ثانيا : مشاكل تواجه التعليم الفني :

مامدى تأثير العوامل التالية بوجهة نظركم على مسيرة التعليم في المملكة ؟

	قوى التأثير	مؤثر	غير قوى غير مؤثر
١) مشاكل طلابيه :			
أ/ عدم اقبال الطلبة بالاعداد المطلوبة على التعليم الفني	☐	☐	☐
ب/ عدم اختيار الطالب للمهنة المناسبة لطاقاته وقدراته	☐	☐	☐
ج/ رغبة الطالب في الحصول على مستويات أعلى من التعليم	☐	☐	☐
د/ عدم توفير التوجيه المهني للطلبه	☐	☐	☐
٢) مشاكل اجتماعيه :			
أ/ عدم تقدير المجتمع للاعمال والحرف الفنية والمهنيه	☐	☐	☐
ب/ كثرة الطلب على اليد العاملة غير المدربة	☐	☐	☐
٣) مشاكل ماليه وادارية :			
أ/ عدم توفر الخبرة الادارية المدربه	☐	☐	☐
ب/ عدم توفر الاموال اللازمة	☐	☐	☐
ج/ قصور الانظمة الادارية وعدم الروتين	☐	☐	☐
د/ قصور الانظمة الماليه وعدم الروتين	☐	☐	☐
هـ/ عدم توفر التوعية الاعلامية عن المعاهد	☐	☐	☐
٤) مشاكل تدريبيه :			
أ/ عدم توفر المدربين والمدرسين المطلوبين	☐	☐	☐
ب/ قصور المناهج وعدم كفايتها	☐	☐	☐
ج/ انظمة التقييم في التعليم والتدريب لا تساعد على تحقيق الجودة والجدارة	☐	☐	☐

انتهى

VITA

Abdullah Salih Al-Obaid

Candidate for the Degree of

Doctor of Education

Thesis: HUMAN RESOURCES DEVELOPMENT IN SAUDI ARABIA: CASE OF TECHNICAL MANPOWER PROGRAMS AND NEEDS

Major Field: Vocational-Technical and Career Education

Biographical:

Personal Data: Born in Al-Badayi, Kingdom of Saudi Arabia, July 1, 1941, the Son of Salih Al-Obaid and Hossah Assuhaibani.

Education: Graduated from Unaizah Elmi Institute (high school level), Saudi Arabia, in 1962; graduated from Arabic Language College, Imam Muhammed Bin Saud Islamic University at Riyadh, Saudi Arabia in 1968 with a Licentiate degree; enrolled in the Second Session of the Public Administration Program in The Institute of Public Administration during the period from August 30, 1969, to March 12, 1970, in Riyadh, Saudi Arabia; received Master of Science in field of Technical Education from Oklahoma State University, Stillwater, Oklahoma, in July, 1977; enrolled in Oklahoma State University, Stillwater, Oklahoma, in 1977 to work toward Doctor of Education degree with a major of Vocational-Technical and Career Education; completed all requirements for the degree in July, 1979.

Experience: Administrative work concerning civilian and military personnel and training programs from 1962 till 1967, while earning Bachelor of Arts; Arabic Instructor, 1967-1973; Public Administration Instructor, Curriculum and General Administration work, 1970-1975. King Faisal Air Academy, Riyadh, Kingdom of Saudi Arabia,