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Feasibility Study for a Comprehensive Community College System in the United Arab Emirates

Kadhim Abdul Rassool-Ali

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FEASIBILITY STUDY FOR A COMPREHENSIVE COMMUNITY COLLEGE SYSTEM IN THE UNITED ARAB EMIRATES

by

Kadhim Abdul Rassool-Ali

A Dissertation Submitted to the Faculty of The Graduate College in partial fulfillment of the requirements for the Degree of Doctor of Education Department of Educational Leadership

Western Michigan University Kalamazoo, Michigan December 1980
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This dissertation would not have been completed without the support and assistance of many individuals, some to whom I wish to express my appreciation.

To the Minister of Education and Youth and to the education officials and UNESCO experts in the United Arab Emirates who took the time to be interviewed and to respond to the questionnaire.

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And most important, to my wife, Martha, our son, Ra’ad, and our daughter, Tala, whose patience, understanding, and sacrifices have helped make this project a success.

Kadhim Abdul Rassool-Alí
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CHAPTER I

INTRODUCTION

Due to the federation of the seven Emirates in 1971, the economy of the United Arab Emirates (U.A.E.) expanded and created a shortage of trained personnel in technical and middle management. This expanding economy forced the government to import 98% of its labor force from abroad (Encyclopedia of the Third World, 1978, p. 1502).

Like most of the third world countries, the U.A.E. was familiar with the traditional four-year colleges and universities, and it was not familiar with the two-year comprehensive community college concept and its open door policy principle. Yet, all underdeveloped countries know that most of the economic success of the industrialized world has been due to its educational system and manpower development. So the U.A.E. opened its first institution of higher education (university) at Al-Ain 3 years ago.

The U.A.E. is in need of an educational system that is relevant to its national needs and the development of middle level manpower. Can the community college system assist the government to meet these needs in the development of technicians and middle level managers? These community colleges do not replace, but supplement and strengthen, the existing university which is geared toward the development of leaders and not toward the development of middle level manpower. Many studies have indicated that the least desirable ratio of middle level manpower (technicians) to leaders (scientists and engineers) is 1:1.
2 to 1 (Venn, 1964, p. 133).

The United Arab Emirates (U.A.E.) with its capital of Abu Dhabi was formed December 2, 1971, as a sovereign, independent, unified state for the seven emirates (principalities) of Abu Dhabi, Dubai, Sharjah, Ras al-Khaimah, Umm al-Quwain, Fujeirah, and Ajman. This federation is governed by a supreme council composed of the rulers of the seven emirates. This supreme council is also responsible for electing the federation's president and vice president, who serve a 5-year term of office and may be reelected.

The president of the federation appoints the prime minister and, in consultation with him, also appoints the individual ministers. The prime minister heads the council of ministers, which has executive authority, initiates legislation and its implementation, and is collectively responsible to the supreme council of rulers.

Due to their federation, there was a control over their country's petroleum industry that resulted into more equitable returns for their oil exports and a dramatic move toward industrial development, housing, and social services for the benefit of their people in each state of the union. In 1975 the U.A.E. had the world's highest per capita income of $22,000, which was entirely derived from its oil revenues (Encyclopedia of the Third World, 1978, p. 1500).

The revenue increases from oil exports made the government of the U.A.E. more determined to abolish illiteracy and encourage adult education, and its full attention to this matter resulted in establishing 112 centers throughout the federation of which 77 centers are for males and 35 centers are for females (Statistical Report No. 42,
1979, p. 3). These centers are available at night for students of 15 years and older.

Adult education in the U.A.E. differs from that of the American community colleges and their open door policy where persons who are over 18 years old, whether they are high school graduates or not, are welcome to attend. These students are admitted at community college because they expressed their desire to enter a certain course or program. Placement tests are given to all entering students prior to registration, and for those who fail to make satisfactory scores in English and mathematics, remedial courses are available. In the U.A.E., only high school graduates are admitted to the university at Al-Ain.

During the last decade, the U.A.E. experienced a vast scheme for the economic reconstruction of the country. There was a vast development of programs and implementation in industry, housing, and other sectors of the economy. Maintenance of this progress will depend upon the formal education levels attained by the manpower of the U.A.E., especially in the middle level in most fields because its country's oil is not going to last forever. Therefore, this new type of education is an investment for the future and not for the present.

Statement of the Problem

The problem in the U.A.E. is the lack of trained personnel in technical and middle management among its nationals. The existing shortages of manpower made the U.A.E. government import skilled manpower from abroad to fill the needs of its expanding economy. These
immigrants with their families form 75% of the total estimated population of 655,937 (Encyclopedia of the Third World, 1978, p. 1498).

The government and foreign companies do train and retrain their workers to some extent at their employment location. But generally, there is no delivery system for people who are high school dropouts, skilled workers who want to upgrade their skills due to change in technology or who were displaced by automation, the uneducated who find themselves locked out of society in many ways, and late bloomers who can be discovered and properly guided.

The purpose of this study is to determine if the community college functions will be feasible for meeting the needs for middle level technicians and managers in the U.A.E. Collins's (1968) preconditions were used as the measure of feasibility.

In order to investigate this feasibility study, the following three preconditions set by Collins (1968) for establishing a community college in a developing country must be fulfilled:

1. Does the U.A.E. have secondary school systems graduating more students than its universities can absorb?

2. Is the U.A.E. economy potentially ready to employ the trained students of the community college?

3. Would the government of the U.A.E. support the idea for community college development?

In answering the first research question, primary data were gathered from the statistical department of the Ministry of Education and Youth at Abu Dhabi, U.A.E.
To answer the second research question, primary data were gathered from the Ministry of Labor and Social Affairs for the unemployment figures of middle level technicians and managers and the demand for additional employees of that level.

To answer the third research question, the data were gathered by conducting a survey of opinions from selected educational officials in the U.A.E., using a questionnaire and structured interview techniques. The sample approached were: the Minister of Education and Youth, selected educational officials at the Ministry of Education and Youth, and the UNESCO advisors in the U.A.E. Their opinions were useful in establishing the feasibility of government support for the comprehensive community college system in the U.A.E.

Significance of the Study

The significance of the study is an effort to examine the cultural, economical, and social conditions of the U.A.E., and therefore, to determine whether its educational system is adequate and, if not, whether a community college system would be of any service to its needs.

Community colleges were created to fulfill society's demand for readily available and accessible college education for all United States citizens. The open door policy of most community colleges assumes that all U.S. adults should have the opportunity for post-secondary education. It also assumes that people taking advantage of this opportunity will benefit. The open door policy has brought to college a wide spectrum of people who in the past never dreamed of obtaining a college education. (Taylor, 1978, p. 1)
This type of system in higher education has been very successful in the United States and has expanded rapidly. In 1963, there were 634 community colleges, and in 1977, the number had increased to 1,155 colleges, an 82% increase (Digest of Education Statistics, 1979, p. 101).

The open door policy has extended higher education opportunities to the public from all walks of life. In the United States, student population has changed as to sex, socioeconomic class, and minority group (Monroe, 1972). This policy could also be applied in the U.A.E. where the public and the nontraditional students could benefit from it and, in the long run, it could assist the government in meeting the demand for middle level technicians and managers.

The status of higher education in the U.A.E. is in its infancy. The U.A.E. university at Al-Ain was opened in the fall of 1977 (Annual Report, 1979, p. 15), and it cannot accommodate a sufficient number of future high school graduates, let alone the nontraditional students.

Where then, if not in the community college, are these young people who are in the need of technical training and those seeking a college degree to be served? The role of the community college seems to be well defined as an institution that can meet a two-fold need: (1) to furnish the first two years of experience to those who plan to work toward a bachelor's degree or professional employment and (2) to meet the needs of those who require training in a specific occupation. (McConnell, 1964, p. 3)

To meet the demand for middle level manpower, the U.A.E. needs graduate technicians and managers at the middle level. The education and development of middle level manpower is a great educational
responsibility.

Not only do we need more people moving into skilled and technical occupations but the right kind of people; not potential engineers, not potential mechanics, but those whose ability and aptitude suit them best for this level of work. In an economy which allows fewer mistakes and in which an intelligent and systematic matching of our human talents and manpower requirements becomes crucial, the best middle level manpower must be sought out and developed, be it age twenty-one or fifty-one, white or Negro, male or female, rural or urban, wealthy or poor. (Venn, 1964, p. 135)

The complexities of technology continuously increase the demand for middle level manpower. The government of the U.A.E. was aware of this need and therefore established four vocational high schools, of which two were technical, one agricultural, and one business. The problem was that they were geared toward the traditional high school students. So, where would the majority of adults, workers, and the rest of the nontraditional students go to be trained or retrained for their jobs? A community college is a system that has been designed to serve these needs.

Venn (1964) advocated that:

As a technology upgrades the skill and knowledge requirements of the jobs, education can no longer be confined to the traditional twelve, fourteen, or sixteen years of formal schooling. The Department of Labor projects that the average youth of today will probably shift occupations some five times over the next forty years he is in the labor market. A life of continuing occupational adjustment will mean a life of continuing education to meet changed or additional educational requirements. (p. 26)

At the present, no such system exists in the U.A.E. A community college as defined in this study is designed to provide life-long learning opportunities, and pertains to a changing economic order.

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The success of the community college system in the U.A.E. will depend on its flexibility in providing new courses and programs to meet the demand for middle level manpower development. Flexibility is the key to career programs for the future in any community college (Monroe, 1972, p. 387). When students' interests and needs change, certain courses and programs may be started to meet the new demands and needs. Today's technology continuously increases the demand for middle level manpower, and the establishment of a comprehensive community college system in the U.A.E. might assist the government in meeting this demand.

Reasons for Collecting Data in the United Arab Emirates

For the accuracy of data gathering on feasibility of a comprehensive community college system, the researcher chose a country that had no two-year college or comparable institution. Also, it was felt that respondents who had no knowledge of a two-year college system would tend to examine its functions more cautiously and more open mindedly than would the respondents from a country that already had a two-year college system or similar institution.

Education in the United Arab Emirates

Introduction

The feasibility of introducing a community college system into any country depends upon the effects of its educational history on its present educational system.
History of Education in the U.A.E. (Partners of Progress, 1976, pp. 66-68)

Prior to 1953 not a single school existed in any of the seven emirates, and the education available was for groups of boys who went to the Mosques and learned to read the Koran. The first school was opened in 1953 in the emirate of Sharjah and provided free education for 450 boys between the ages of 6 and 17.

During the late 1950's, more schools were opened in Ras al-Khaimah, Abu Dhabi, Khor Fakkan, Ajman, and Umm al-Quwain. By the year 1965, there were 31 schools throughout the emirates, apart from those in Abu Dhabi, of which 12 were for girls with an enrollment of 2,060, while 4,895 boys were attending schools.

The determination of the U.A.E. government to abolish illiteracy and encourage adult education resulted in establishing compulsory education throughout the federation in 1971. When the federation of the seven emirates took place in 1971, the government advocated that:

The shortage of educated and trained manpower is a serious handicap for all developing nations, placing obstacles in the path of industrialization as well as depriving people of opportunities to play a full role in the building of new third world states.

No society can run an industrial or commercial structure if its people are deprived of education. Nor, given the necessary funds, can it be termed civilized if the facilities of learning are withheld. (Partners of Progress, 1976, p. 66)

In 1971 there were 32,862 students enrolled in 74 schools, and today in 1980, there are 322 schools in the U.A.E. with a student enrollment of 124,019; the latter figure includes the children of both nationals and immigrants (see Appendix D, Tables A through E).
The establishment of these new schools within the decade of the 1970's showed a growth rate of over 435%, and this great achievement showed the determination of the U.A.E. leaders and their awareness of the challenges of the future in a fast moving world.

Schooling in the U.A.E.

Schooling consists of 12 years: 6 years of elementary, 3 years of preparatory, and 3 years of secondary school. Education is free, universal, and compulsory to the sixth grade.

The medium of instruction is Arabic, but English is taught as a second language from the fourth grade through the 12th grade. The curriculum in elementary schools includes Arabic, English, religion, arithmetic, general science, and social studies. Physical science, social science, mathematics, and French are introduced in the preparatory level. At the secondary level, students are divided into a science stream and a humanities stream. Vocational education is also available at the secondary level in business, agriculture, and industrial (technical) studies.

Private schools exist in addition to public schools, and those students who attend public schools get their education free as well as their school uniforms, books, lunches, equipment, and transportation. In addition, poor students and those who come from rural areas are provided with free dormitories and a monthly compensation as follows (Bulletin No. 1, June 1980, p. 13):
Each student in:  

Kindergarten receives 40 Dh  
First grade receives 50 Dh  
Second grade receives 60 Dh  
Third grade receives 70 Dh  
Fourth grade receives 80 Dh  
Fifth grade receives 90 Dh  
Sixth grade receives 100 Dh  
First preparatory (seventh grade) receives 110 Dh  
Second preparatory (eighth grade) receives 120 Dh  
Third preparatory (ninth grade) receives 130 Dh  
First secondary (10th grade) receives 140 Dh  
Second secondary (11th grade) receives 150 Dh  
Third secondary (12 grade) receives 160 Dh  

$1 = 3.69 Dh

To encourage the development of middle level manpower, the government provides higher compensation to those students who finish the ninth grade and attend the public vocational schools:

Each student in:  

First secondary (10th grade) receives 280 Dh  
Second secondary (11th grade) receives 300 Dh  
Third secondary (12th grade) receives 320 Dh  

Also, all of these vocational students are provided with free dormitory accommodations.

Education for illiterates and adult education is highly encouraged by the government and found in 112 centers, of which 77 centers are for males with an enrollment of 10,104 students, and 35 centers are for females with an enrollment of 3,985 students throughout the federation. These centers are available at night only for students aged 15 and older. The curriculum for the first years consist of reading, writing, and arithmetic. Then these students will be advanced directly to the fifth grade and pursue regular schooling curriculum through the 12th grade (Statistical Report No. 42, 1979, p. 3).
Higher Education in the U.A.E.

The only institution of higher education in the country is the University of the U.A.E. which is located in Al-Ain and was opened in the fall of 1977. It consists of five colleges: the Colleges of Science, Humanities, Education, Administration and Political Science, and Islamic Law (the Sharia). There is a plan for next year to add a College of Agriculture to the university. Four hundred and forty-seven students are anticipated to graduate for the first time from the U.A.E. university in 1980-1981 (Annual Report, 1979, pp. 14-16).

High school graduates are also sent by the government to study in universities throughout the Arab and Islamic world, Europe, the United States, and Canada. From this group, 100 graduated in 1978 and 125 graduated in 1979. In 1979, there were 1,354 students studying abroad (Bulletin No. 1, 1980, pp. 11-12).

The university enrollment at Al-Ain in 1979-80 was 1,752 students of which 999 were males and 753 were females. U.A.E. (citizens) students represented 79.5% of the student body (see Table 1, p. 13) (Bulletin No. 1, 1980, p. 11). The other 20.5% of the student body represented sons and daughters of diplomats in the country, sons and daughters of the professors at the university, and scholarship students from other Arab countries.
Table 1
National (U.A.E. Citizens) Students Attending
U.A.E. University

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<th>Year</th>
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<td>M</td>
<td>F</td>
<td>M</td>
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<tr>
<td>Students</td>
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<td>236</td>
<td>156</td>
<td>263</td>
</tr>
<tr>
<td>Total</td>
<td>383</td>
<td>419</td>
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Summary of Chapter I

This chapter introduced the problem of the lack of middle level technicians and managers in the U.A.E. caused by its expanding economy which is mainly derived from its oil exports. The purpose of this study was to determine if community college functions will be feasible for meeting the needs for middle level manpower based on Collins's (1968) preconditions.

Overview of the Remainder of the Study

Chapter II, the review of the related literature: This chapter introduces the comprehensive community college concept as it was developed in the United States with the German influence, and its transfer and expansion in the industrialized world and the developing countries.
Chapter III, the methodology: This chapter describes the methodology for the study including the hypotheses, the sample, the instruments, and the procedure for the analysis of data and information.

Chapter IV, the findings: This chapter presents the findings of the study, the tabulations, and the discussions of the results.

Chapter V, the summary: This chapter consists of the conclusions of the study and the implications.
CHAPTER II

REVIEW OF RELATED LITERATURE

Introduction

The concept of community college as a nonformal higher education and its flexibility of function, with its philosophy of comprehensive curricula, community orientation, and its open door policy, was implemented as a means for providing opportunities to a wide spectrum of people who in the past never had the chance of obtaining a college education in the United States.

The origin of the community college stems from the movement of the junior college, and the origin of the junior college stems from the German influence upon the American universities during the 18th century.

The German Influence

German educators thought that the university should be restricted to highly intelligent students who would benefit the most from education and research. Students who wanted to study general education or be prepared for a profession should go to a different kind of institution.

During the late 18th century and early 19th century, the German universities changed their philosophies from teaching to becoming a workshop of free scientific research (Brubacher, 1968). As the word
of this opportunity spread, many American scholars traveled and
attended German universities. When they returned to America, they
preached the educational concepts of the German universities. Among
these American scholars was Henry P. Tappan, president of the Univer-
sity of Michigan from 1855 to 1863 (Monroe, 1972).

In 1855 Henry P. Tappan, in his inaugural address as president
of the University of Michigan, made specific suggestions for transfer-
ing the secondary work of the university to the high schools
(Fields, 1962). Tappan was credited as the first American educator
to recommend such a transfer (Brick, 1964). Similarly, William Watts
Folwell, president of the University of Minnesota, at his inaugura-
tion in 1869 stated:

How immense the gain . . . if a youth could remain at the
high school or academy, residing in his home, until he
had reached a point, say, somewhere near the end of the
sophomore year, there to go over all of those studies
which as a boy he ought to study under tutors and gover-
nors! Then let the boy, grown up to be a man, emigrate
to the university, there to enter upon the work of a man.
(Thornton, 1972, p. 48)

Other American university presidents who joined Tappan and
Folwell in recommending the transfer of the first two years in Ameri-
can colleges to secondary school were Richard H. Hesse of Missouri,
Andrew S. Draper of Illinois in the 1890's, and Edmund J. James who
tried to interest the University of Pennsylvania in dropping the
freshman and sophomore years prior to his inauguration at Illinois
in 1905 (Brick, 1964). Also, there were a number of other scholars
and educational leaders who held ideas similar to those expressed by
these men.
While Tappan, Folwell, and others did not participate directly in establishing junior colleges, their keen understanding and the prestige of their positions enabled them to contribute materially to the popularization of the junior college idea. These American university presidents were striving for the establishment of upper divisions and graduate education as the ideal of higher education, and they believed in the two-year college as a proper addition to secondary education (Blocker, 1965).

Fathering the Junior College Idea

Two men were responsible in the development of the junior college. One was William Rainey Harper, president of the University of Chicago and called by many the "father of the junior college" (Brick, 1964). The other was Alexis Frederick Lange, dean of the School of Education at the University of California at Berkeley (Bogue, 1950). Each person will be discussed as to his contributions to the junior college idea in the following sections.

William Rainey Harper

In 1892 Harper created two major divisions at the University of Chicago: the "academic college" to embrace the freshman and sophomore years, and the "university college" to include the upper years. In 1896 Harper changed the names to "junior college" and "senior college" (Fields, 1962). When Harper addressed the National Education Association in Charleston, South Carolina, on July 10, 1900, he said:
The work of the freshman and sophomore years is only a continuation of the academy or high school work. It is a continuation, not only of the subject matter studied, but of the methods employed. It is not until the end of the sophomore year that university methods of instruction may be employed to advantage. (Harper, 1930, p. 34)

It was during this address that the first mention of the term "junior college" was used in the sense of an independent institution: "I use the name junior college, for lack of a better term, to cover the work of the freshman and sophomore years" (Harper, 1930, p. 34).

Harper advocated three ways of establishing junior colleges:
(a) to separate the first two years from the university, (b) to transfer the weak four-year colleges into academically honest two-year junior colleges, or (c) to extend the four-year high schools into six-year institutions, with these extensions eventually evolving into separate organizations.

The public high schools in and around the city of Chicago proved receptive to Harper's persuasions; by 1904 between 20 and 30 of them became six-year institutions, and an unspecified number had established separate junior colleges. The first of these public junior colleges was in Joliet, Illinois, in 1901 (Brick, 1964). Another junior college was established about the same time in Goshen, Indiana; it was discontinued, but the period of most rapid development began in 1915 (Koos, 1970).

In the 1921-22 period, there were only two junior colleges that were housed in separate units from the high school facilities, one in Grand Rapids, Michigan, and the other in Kansas City, Missouri (Koos, 1970).
Alexis F. Lange

Lange was one of the truly great educational philosophers whose teachings have influenced the growth and direction of the junior college development. His ideas and ideals provided the fertile soil for the rapid expansion of junior college education. He was a professor of English at the University of California at Berkeley from 1890 to 1906 and dean of the School of Education from 1906 to 1924 (Bogue, 1950).

The origins of Lange's interest in eliminating the first two years of college from the university and establishing the junior college concept in California stem from the German influence.

In 1883, the University of Michigan, influenced by the German thought, was the first American institution of higher education to make official recognition of the distinctiveness between the upper and lower two years of undergraduate studies by giving upper classmen the chance to specialize along the lines of minor and major studies. Lange was a student at Michigan during the very years it was being tried there. Soon this system was abandoned and apparently forgotten. Under the new "university system" which had been introduced at the University of Michigan in 1883, Lange proceeded directly to the Master of Arts degree, which he received with honors in 1885 (Bogue, 1950). The student who received his master's degree in Michigan in 1885 went to California in 1890 as an assistant professor of English. As Eells (1970) related in his tasteful style:

The Michigan conception of functions at the junior level was carried literally and bodily as a beneficently potent
bacillus, so to speak, to the University of California. In Michigan the idea had failed and been forgotten by all in authority, but the chance influence on one student, thus transferred to the California soil, gradually inoculated the youthful state university. (p. 18)

Since 1892 California has accepted the idea that the first two years of college belonged to secondary education. The establishment of the junior certificate degree program as an evidence of completion of the high school requirements for admission to a professional curriculum, and the acceptance of the idea of unified high school curricula covering grades 9 to 14, inclusive, led directly to the implanting of the idea of local high school in which all of the requirements for the junior certificate program could be completed. This idea was sponsored by Lange. In 1907 a law was passed in California authorizing high school boards to establish postgraduate courses of study to approximate courses prescribed in the first two years of university courses (Morgan, 1930).

Since the junior certificate program encouraged many students to take college level courses at their local high schools and then transfer their credits to the university, the University of California described the junior certificate as marking the distinctions between college and secondary education. Dean Lange proudly declared that "what was to be known as the junior college idea had been essentially put into practice at Berkeley" and the high schools were being encouraged to utilize locally the precept and example of the state university (Ross, 1963).

Lange was the first educational leader who stressed the need for establishing both the general and vocational programs at the public
junior college, and it was his efforts that made California a national leader in creating such programs.

In 1910 California established its first public junior college at Fresno (Brick, 1964). This institution was the first American junior college with a dual purpose: an institution that provided practical courses in agriculture, mechanical arts, home economics, technical courses, and general studies (Fields, 1962).

Lange (1970) briefly summed up the case for the comprehensive junior college by saying:

The junior college cannot make preparation for the University its excuse for being. . . . The junior college will function adequately only if its first concern is with those who will go no farther, if it meets local needs efficiently, if it enables thousands and tens of thousands to round out their general education, if it turns an increasing number into vocations for which training has not hitherto been afforded by our school system. (p. 20)

The Growth of the Junior Colleges

The public junior college movement has grown very rapidly in the United States since 1920. This growth has been somewhat paralleled by the growth of all institutions of higher education, and may be accounted for not only by the general urge for college work but also by the fact that these junior colleges have made a real effort to make available types of training not always to be found in the senior colleges (Colvert & Bright, 1950).

The economic changes that took place during the 1920's were the movements from the farms to the cities, the development of the automobile and good roads, the mechanization of industries, and so on.
These changes in the economy were paralleled by the social, political, and religious changes that were occurring at rapid speed. The contribution of junior colleges to the American economy at that period was great:

The junior college has come to the kingdom for such a day as this. Perchance it can help save the day. Certainly its very youth with its susceptibility to change, to make experiments is in its favor. It is better situated to make changes than older institutions more or less bound by traditions regarded as sacred. (Noffsinger, 1935, p. 395)

The growth was so rapid that during the last 4 years of the depression, the list of public junior colleges increased from 178 to 223, and the enrollment of students grew from 45,021 to 77,111. During the same period, the private junior colleges increased in number from 256 to 309 and in the enrollment of students from 29,067 to 33,138.

This growth continued over the years and, by the 1940's, many junior colleges changed their names to community colleges. During the 1960's and the 1970's, the United States noticed the fastest growth in the number of community colleges, and today there are at least 1,155 community colleges throughout the United States.

Why Junior Colleges Are Inadequate

When junior colleges were first developed they were strictly junior institutions of higher education. Their main purpose was to prepare students for the four-year college and offer parallel curricula to that of the first two years of the standard college. At the end of the two years, the students were eligible and expected to transfer to the standard college to complete the junior and senior
years. Large universities with overcrowded freshman classes have encouraged junior college establishment in relieving the congestion.

Since these junior colleges offered parallel courses to that of the first two years in the university, many students dropped out because they had no intention of transferring to a university. These students were the nonacademic type, and what they needed was preparatory courses for the world of business and industry. The great majority of these students were left out without any assistance, and they should become the economic workers of the country (Snyder, 1930, p. 74).

Many people were dissatisfied with the name junior college. The term junior college in the beginning was almost laughed at in certain areas, and when the term was mentioned some educators could not help smiling. Their opinion was that the junior college was a mushroom growth that had sprung up overnight and would soon disintegrate (Noffsinger, 1935).

Even the creator of the term "junior college" was not satisfied with it. During his address in 1900 to the National Education Association in Charleston, South Carolina, Harper said, "I use the name 'junior college' for lack of a better term" (Harper, 1930, p. 35).

It was during that address that the first mention of the term "junior college" was used in the sense of an independent institution. This name had two misconceptions: It was neither "junior" nor a "college" in the traditional meaning of the term (Noffsinger, 1935), and the term "junior" was objected to in the following:
There are signs on every hand that junior has cast off his swaddling cloths. He is certainly out of the cradle and stoutly refuses the confinement in which well-meaning but traditional-minded or uninformed persons would keep him. He is speaking for himself, writing his declaration of independence, constitution, and bill of rights. He is ready, willing, and able to co-operate with others in the task of education on terms of equality. He is no longer junior to anything or anybody. (Bogue, 1950, p. xviii)

Another objection of the term "junior college" was made by the Commission for the Study of Higher Education in California, headed by Dr. Henry Suzzallo, as stated in its published report in 1932:

The term "junior college" is unfortunate. It is not junior to anything—certainly not to the university in its primary or main function. It is really senior to all common schooling below it—the capstone of socializing or civilizing education. (Suzzallo, 1946, p. 121)

The term "junior" constituted a liability and tends to divert the attention of students, parents, and teachers from the function of providing vocational and terminal education to that of providing university preparatory education. Also, the term tends to glorify the certificate courses and cast somewhat of a stigma upon the terminal offerings (Sexon & Harbeson, 1946).

In view of the above, many colleges changed their name; for example, Los Angeles Junior College officially became "Los Angeles City College" in 1938 (Dement, 1939). Their reasons for changing the name were:

1. The term junior seemed psychologically to imply that senior was to follow, and thus appeared unsuitable to designate the institution concentrating attention on the two-year program of terminal courses.

2. It was inappropriate to offer a junior college diploma to a student approaching the age of 30.
3. Most hearers did not dissociate the word junior from juvenile.

4. Parents had been known to say, I want my children to go to college not just junior college.

5. Since the junior high schools were established first, and since they outnumber junior colleges, they seemed to monopolize the word junior in people's minds.

By the 1940's it was clear that a change of the name from "junior college" was necessary and insisted on because junior colleges had assumed a role much larger in scope than the diminutive services and functions suggested by its name. Junior colleges were increasingly being called upon to widen their scope and to serve the entire community of every age and walk of life, young and old alike. It was based on the philosophy that education is a lifelong process extending from birth to death (Sixon & Harbeson, 1946). In view of its extended services and wider functions, it was suggested to change the name "junior college" to "community college" to be more in line with its present objectives and functions. The community college idea was designated as a movement rather than an institution (Bogue, 1950). Also, it would be more fitting to designate the community college as the center of the educational and cultural life of the entire community, to which young and old alike, from all walks of life, may revert to inspiration and the opportunity of lifelong learning (Harbeson, 1949).
The New Name, "Community College"

The new name was further stimulated by the President's Commission on Higher Education (1947). The commission specifically recommended the application of the name "community college":

Hence, the President's Commission suggests the name "community college" to be applied to the institution designed to serve chiefly local community education needs. It may have various forms of organization and may have curricula of various lengths. Its dominant feature is its intimate relations to the life of the community it serves. (p. 5)

Also, the commission presented the following definition for the emerging community college institution:

Whatever form the community college takes, its purpose is educational service to the entire community, and this purpose requires of it a variety of functions and programs. It will provide college education for the youth of the community certainly, so as to remove geographic and economic barriers to educational opportunity and discover and develop individual talents at low cost and easy access. But in addition, the community college will serve as an active center of adult education. It will attempt to meet the total post-high school needs of its community. (pp. 67-68)

The functions of the community college are best described by Jesse P. Bogue (1950), who was the executive secretary of the American Association of Junior Colleges, in his book, The Community College:

By examination of life situations, of identifiable problems that need solution, on national, state, and local levels, we arrive at conclusions regarding the basic functions of community colleges. They are guidance and counseling for all students and for the people of the community; general education for all students regardless of vocational objectives; technical and other vocational training, and that on a continuing basis, for students who will not advance to upper division collegiate studies; the further democratization of higher education by surmounting barriers of geography and family financial
difficulties; the popularization of higher education by breaking down family traditions and creating greater personal interest and motivation; adult education and university-parallel studies for those students who should continue formal education. (p. 76)

Philosophy of the Community College

Monroe (1972), in his analysis of the community college philosophy, identified three objectives: (a) comprehensive curricula, (b) open door principle, and (c) community orientation. Each of these objectives is described below:

Comprehensive Curricula

If the community college is considered comprehensive when it serves a wide variety of potential students, old and young, of varying intellectual abilities, and with different educational goals, then the curriculum must offer more to students than the traditional first two years of a four-year college liberal arts or professional degree program.

Open Door Principle

The open door principle means that any person who is over 18 years old whether a graduate from high school or not is welcome to attend the community college. Admission does not depend on intelligence, grades, religion, race, background, or economic circumstances. However, open admission does not guarantee that a person will be admitted to any or all of the programs of the college simply because the student expresses a desire to enter that course or program.
Placement tests are given to all entering students prior to registration, and for those who fail to make satisfactory scores in English and mathematics, remedial (developmental) courses are available. The college normally retains the right to place students in areas of learning where evidence indicates they have a reasonable chance for success.

**Community Orientation**

The community college belongs to the local community and should be oriented to serve the interests and needs of its community by its curricular offerings and its community service programs. The curricular offerings should include both the vocational and general courses, and the community services should include a wide range of adult and continuing education courses, plus the college should make its facilities available to the nonstudent population in the community. These facilities could be the theatre, library, auditorium, or athletics facilities.

**Functions of the Community College**

Monroe (1972) indicated that after the college planners and decision makers have agreed upon the basic philosophy and the major objectives of the community college, then follows the task of identifying and spelling out the numerous specific functions of the community college.

These functions become the blueprint for the guidance of the faculty and administration in formulating the curricula, services,
activities, and the rules and regulations which the college attempts to put into practice.

Many functions of the public community college today were listed by Bogue (1950), Fields (1962), Monroe (1972), and Thornton (1972). These have been grouped by this researcher under eight general headings and in alphabetical order:

1. Adult and continuing education function.
2. Citizenship and general education function.
3. Community service function.
4. Counseling and guidance function.
5. Occupational education function.
6. Open door principle.
7. Student developmental education function.
8. Transfer education function.

Each of these functions is described below:

**Adult and Continuing Education Function**

The terms adult education and continuing education are synonymous and interchangeable (Monroe, 1972). Adult education signifies that adults of all ages and in all stations of life are in need of an endless variety of educational opportunities. Continuing education suggests that no one is too old to learn, that one's education is never finished. Since the major purpose of the community college is meeting the needs of all individuals in the community, its programs must embrace and fulfill the lifelong educational needs of adults.
Fields (1962) advocated that the reasons for adults attending adult education were: (a) job advancement, (b) self-improvement, (c) special interest, and (d) creative activity. These adults are usually employed in full-time jobs during the day; the availability of evening and extended day programs and courses comes in handy for these adults to continue their education after working hours.

These adults may enroll in regular college credit courses or in a variety of short-term courses, some with credit and some without. These courses range from regular transfer level liberal arts and occupational studies to the noncredit short-term courses, weekend seminars, and conferences.

Schedules of classes are unconventional, and many classes are scheduled at off-campus locations, in community centers, factories, and office buildings. Classes are held on weekends, in off-season, and for varying lengths of time. Many working people and housewives prefer to have longer class sessions, fewer times a week. Both admissions and withdrawals of these classes are flexible and easy because adult students come voluntarily to these classes on a part-time bases, unlike the younger students who may be more committed to a program.

Adult students are motivated to enroll in a community college because they enjoy learning more about the world, and some of them come to meet friends. Also early retirement and the increasing amount of free time provide many adults with idle hours; these adult courses become worthy substitutes for boredom.
An enlightened and dedicated public is essential if a democratic process is to operate effectively. Adult education programs will contribute to the improvement of the nation's social and political health by offering instruction in politics, group organization, human nature, and leadership (Monroe, 1972).

Another advantage of the community college, by expanding its services to adult citizens and the many agencies and organizations which operate within the community, is that the college becomes a true community college which the public cannot afford to neglect or reject.

Citizenship and General Education Function

The term general education refers to programs of education specifically designed for young students to prepare them for the responsibilities which they share in common as citizens in a free society, and for the beneficial and creative participation in a wide range of life activities.

This program specializes in general studies and offers students a wide choice of studies which are neither transfer nor occupational oriented. If students have no plans for completing a baccalaureate degree or if they have no definite career plans, they are free to study more or less what they please, even to the extent that at the end of two years they may receive a new community college degree, the associate in general studies.

Certain courses in general studies are core courses that all students are required to take regardless of their aim and the degree for which they are studying at the community college.
Community Service Function

Community colleges are oriented toward the educational, social, cultural, and economical needs of the communities in which they are located. Monroe (1972) identified four categories of community services provided by the community college: (a) providing an open campus, (b) using the community as a classroom, (c) sharing cultural experiences with the community, and (d) using the college's professional staff to assist in the solution of community problems.

These four categories are explained below:

An open campus. The objective of an open campus is to invite the public and say "This is your college and you are most welcome to enter." Areas which could be opened to the public include the dining and conference rooms, physical education facilities, theater and auditorium, art displays, health centers, child care centers, and college museums.

Community as a classroom. The most significant educational service which the local community can offer the college is the development of an extensive program of cooperative work-study education. When college students have the opportunity to learn, and also earn, while working in an office, factory, hospital, or social work agency, then these students enjoy the best possible classroom and laboratory for real life learning experiences.

Sharing cultural experiences with the community. The open campus college should invite the public to use the college's facilities and seek to promote social, cultural, and recreational
activities. These activities could be lecture series, musical festivals, film programs, and many other cultural events.

**Assistance in community problems.** Finally, the community college delivers a valuable service to its community by offering its professional teachers and counselors for the purpose of doing research and consultation. These personnel can be involved in the analysis of community problems through research field studies and surveys.

These professional services of the community college are being used by the community in the training of public employees, firemen, policemen, social workers, child care aides, building inspectors, and city planners.

If a community college is to serve its community best, it has an obligation to advertise its talents so that the public knows what talents are available.

**Counseling and Guidance Function**

Because community colleges attract a more diversified and heterogeneous population, a dynamic student counseling program is most important in meeting students' needs and the objectives of the institutions.

Because many students do not know what they want when they finish high school, the prime function of counseling and guidance at the community college is to assist students in making decisions which affect their educational, occupational, social, and personal lives.

This assistance is to help students to understand and evaluate their potentialities and limitations, and to discover and develop
ways and means of working out their problems and to take full advantages of their opportunities.

Besides assisting students in making choices of curriculum, courses, and career planning, counselors also assist students in discovering their inner strengths and weaknesses as they face the many problems which arise from interpersonal social relationships and parental tensions.

Both the quality and the quantity of the counseling and guidance service depend upon the number of qualified counselors. An ideal ratio is about one counselor to 100 students (Monroe, 1972).

Occupational Education Function

Everyone is affected by the accelerating pace of scientific and industrial change. A whole new order of occupations has been created, rapidly outmoding many of yesterday's skills and techniques. In the years ahead millions of people will be required to relearn their jobs as the skills required become more sophisticated (Thornton, 1972).

Thornton (1972) identified four major programs of occupational education: (a) vocational programs, (b) terminal programs, (c) para-professional programs, and (d) technical programs.

Each of these four programs is explained below:

**Vocational programs.** To the learner, vocational education is learning how to work; to the educator, it is teaching others how to work. Vocational education is always specific, and it prepares students to understand and to be able to do the specific activities found to be necessary in accomplishing a given task. Its major
emphasis is on practice rather than on theory. It has been suggested that this task is not collegiate and that the secondary schools ought to care for it. The marginal youths who need college assistance are not in high school now and will not return there, and it is the public community college's task to accept individuals who need and desire more education and to develop techniques to satisfy their needs (Thornton, 1972, p. 64).

In the Vocational Act of 1963, funds were made available to any appropriate level of education so that all people might have access to training or retraining in any occupation. This act emphasized the citizens who need training, rather than the industry that needs workers. The Vocational Amendment of 1968 made two emphases, that vocational education is a necessary step in education for disadvantaged and handicapped persons and the need to supplement skill training with broader educational opportunities (Thornton, 1972, p. 179).

Terminal programs. Students who wish to pursue careers in occupations which do not demand four or more years of academic or professional work could enroll in community college terminal courses which will lead directly into trade, industry, or business upon graduating with a diploma. The duration of terminal courses is usually two years or less of full-time study. The nature of these courses could be in technical, vocational, or general education depending on the student's major in college.

According to Sexon and Harbeson (1946), terminal students are those for whom the community college will be the last formal education on a full-time basis. This group of students represents
approximately two-thirds of the entire enrollment and may be classified into three major groups:

(1) Those pursuing a curriculum of general education with little or no vocational training; (2) those rather superior students who are pursuing vocational training on the semiprofessional level; and (3) a considerable number—many of them not having advanced beyond the elementary school—who are taking straight trade education with only so much general education as can be lugged in, in connection with trade instruction. (p. 231)

Some terminal students discover latent talent during the course of their education at the community college and pursue a university transfer program instead. Conversely, some students' initial goal is a university transfer program, but they eventually realize that they have little interest or qualification for the difficulty of this program and voluntarily change their objectives to a terminal or vocational training program. This valuable characteristic of the community college provides an environment whereby any student can alter his/her goals and still have the opportunity and time to find his/her place in life, while at a traditional college or university, there is little or no chance for indecision or reevaluation of goals.

Paraprofessional programs. The increasing application of technology in professional fields has introduced the concept of professional helping teams to free the fully educated professionals from much of the menial work formerly associated with each area of specialization. These new fields have been opened for individuals who can operate technical instruments under the direction of the professionals. These professionals are medical doctors, engineers, teachers, lawyers, scientists, and many others. Such individual helpers need more than
high school education and training, but in many cases less than the bachelor's degree. These helpers include engineering technicians, laboratory technicians, dental assistants, and other workers in business, manufacturing, and in service occupations who must combine a measurable understanding of the field with a considerable skill in technique.

**Technical programs.** This program will prepare students for jobs in which some manipulative skill is required but in which technical knowledge is emphasized. This program implies preparation for occupations within scientific and engineering fields where the worker will make use of instruments rather than tools and mental effort rather than muscular exertion. Technical programs require more depth of understanding and allow more independence in judgment than most paraprofessional tasks. The demand is increasing for technicians in all fields of business, national defense, manufacturing, medicine, service, design, and many other fields. The community college is the proper place to prepare these technicians because they require more maturity and depth of scientific knowledge than the high school graduate has achieved, and their scope of operation and education is likely to be narrower than that of the graduate scientist or engineer under whose direction they will work.

**Open Door Principle**

The open door principle means that any person who is over 18 years old, whether a graduate from high school or not, is welcome to attend the community college. Admission does not depend on
intelligence, grades, religion, race, background, or economic circumstances. However, open admission does not guarantee that a person will be admitted to any or all of the programs of the college simply because the student expresses a desire to enter that course or program. Placement tests are given to all entering students prior to registration, and for those who fail to make satisfactory scores in English and mathematics, remedial (developmental) courses are available. The college normally retains the right to place students in areas of learning where evidence indicates that they have a reasonable chance for success.

Student Development Education Function

This function is concerned with the salvage and remedial functions:

The salvage function. This concerns the nonachieving students in the community college who have been rejected by or have been dropped from the senior colleges and universities. These students are intellectually able but not motivated and come to the community college determined to do better on the second chance. With some friendly advice, guidance, and support from counselors and teachers, the majority are able to graduate from the community college and return to the senior college as successful students.

The remedial function. This program concerns young and adult students who have an insufficient background in education or poor high school records. These students are classified as the disadvantaged because either they come from poor families or minorities,
or are among the high school dropouts, the sick who often missed school, the lazy who matured later in life, or the late bloomers whose real abilities are not revealed until their late teens. All of these students come to college because they think that the road to success and a happy life is through education.

The comprehensive community college provides a place for these students to receive remedial courses because past experience has demonstrated that not all disadvantaged students who were denied a higher education were nonachievers. Thoughtful educators do not confuse slowness with stupidity (Monroe, 1972).

Remedial courses are usually taught in small classes of 15 to 20 students. These courses are offered in reading, English fundamentals, and mathematics. Placement tests are given to all entering students prior to registration, and for those who fail to make satisfactory scores in English and mathematics, remedial work is available. Noncredit courses are given in elementary algebra, plane geometry, intermediate algebra, English, natural science, consumer economics, or social science, vocational orientation, and a choice of two electives from the field of art, drama, typing, and an occupational survey course (Monroe, 1972).

Students who succeed in these remedial courses could be promoted from the developmental program into the regular transfer or occupational courses after one semester or after one year. Those who do not succeed will also benefit because they acquire a general knowledge of the world about them and an insight into their own personalities, goals, and talents (Monroe, 1972).
Transfer Education Function

The transfer program is also known as the university parallel or the college preparatory program. This program at the community college leads to the associate degree, which prepares students to enter colleges and universities granting a bachelor's degree, typically at the third year level or "junior year."

The offering of two different kinds of curricula, occupational and transfer, under the same roof enables each the use of facilities and resources of the other, thus giving the advantage of reducing costs and expenses at the community college. Also, offering these two curricula side by side makes the community college a comprehensive institution.

Advantages of the Comprehensive Community College System Over Single-Purpose Technical Institutes

Many developing countries establish single-purpose technical institutes to develop their middle level manpower, but the community college has many advantages over the single-purpose technical institute.

Harris (1970), in a paper concerning the middle level manpower development for Malaysia, listed the following:

1. The majority of youth do not reach a career decision by the age of 17. They are in need of career guidance and a chance to "sample" college subjects before deciding on (a) trying to prepare for the university, or (b) a semiprofessional career in business, teaching, technology, agriculture, the health occupations, or public

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service. Attendance at a comprehensive public community college allows the student to make his/her career decision after he/she has acquired some factual basis on which to make it. Enrolling at a single-purpose technical institute, on the other hand, forces him/her to make this decision in advance, before he/she really knows what his/her talents and interests are.

2. The public comprehensive community college provides for all students a core of general studies in science, mathematics, languages, and arts. Since these academic subjects are needed for almost all semiprofessional level occupations, the public community college is a more suitable institution for semiprofessional or technical education than is a vocational school, even if the latter is post-secondary.

3. For the students who have a university goal in mind, the comprehensive community college gives them ample opportunity to test their abilities and interests. If either ability or interest is lacking, the student can easily move laterally into one of the college-level occupational programs without loss of face or the expense of moving to another specialized school in some other city.

4. Many economies of scale can be realized, since mathematics, science, language, and social science classes can be taught by large group instruction methods. Specialized institutes, on the other hand, tend to have small enrollments (500 and under) accompanied with small class size and high unit costs.

5. Capital outlay costs per student tend to be less than they would be in building a number of specialized technical institutes for the same total number of students. Library utilization,
student-station utilization, and space utilization are all better in a comprehensive situation than in specialized technical institutes.

6. With respect to social development, the value of interdisciplinary contacts should be recognized. In the public comprehensive community college, the future professional meets and makes friends with future electronics technicians, the accounting/management student meets and knows young people training for health occupations, the mathematics major and the law enforcement trainee may become good friends, and the future teacher may share a hobby interest with a future engineer. The student body interests and the common core of general studies and courses are all shared in common.

7. Flexibility is an attribute of the public comprehensive community college. When manpower needs change, it is much easier to phase out a program and start a new one than it is to deactivate an entire single-purpose college and start a new one.

8. A public comprehensive community college may have as many as 30 to 40 different educational programs, each with from 20 to 100 students and a total student body of from 400 to 4,000 students. Adding a new program to a comprehensive community college is relatively easy and relatively inexpensive; whereas starting a new specialized institute to train 50 fisheries technicians, for example, would be exorbitant in cost.

9. Higher education in the comprehensive two-year community college is a long range solution to manpower development. Once it is established, the era of ad hoc reactions to crisis manpower shortages at semiprofessional/technical levels is past.
Based upon the advantages listed above, the comprehensive community college system with its open door policy could be used by the U.A.E. to meet its future demand for middle level manpower.

The Community College in International Perspective

Statistics have shown that educational development is positively correlated with economic development (Hall, 1970). Community colleges, with their flexibility of function, could provide the necessary increase in educational opportunities in order to increase the middle level manpower. They have attracted the attention of many educators in both industrialized and third world countries as a thoughtful approach to human resource development.

Community colleges are spreading throughout the world and can be found in the countries of Japan, Canada, Australia, England, Sweden, Chile, Columbia, and Ceylon (Hall, 1970). Community colleges are also in Jordan and the Dominican Republic (Yarrington, 1970a).

During the first international assembly on manpower development sponsored by the American Association of Junior Colleges, representatives from 18 countries found they have a good many things in common, that middle level manpower development was identified as a challenge in each of their countries, no matter to what level its technology had developed (Yarrington, 1970b).

The transfer of the community college concept to other countries has not been copied as it is from the United States. Although the community concept is relevant to all countries, it has been intelligently adapted to the unique needs of each country. Hall (1970) revealed
the differences in community college adaptation by comparing the stated purposes of each country in the following table.

Table 2
Adaptations of the Community College Concept by Several Countries

<table>
<thead>
<tr>
<th>Country</th>
<th>Expressed purpose for development of junior colleges</th>
</tr>
</thead>
</table>
| Australia        | 1. To provide part of the additional 60,000 places needed at the tertiary level by 1975.  
                   | 2. To make education available "to all citizens according to their inclination and capacity." |
| Canada: Alberta  | 1. To raise percentage of college-age students enrolled.  
                   | 2. To allow the universities to concentrate on graduate studies.  
                   | 3. To provide low-cost education to communities.  
                   | 4. To meet adult educational needs. |
| Canada:          | 1. To fill present gaps in the cities' educational programs.  
                 | British Columbia                                  |
| Japan            | 1. To train and educate women.  
                   | 2. To democratize higher education.  
                   | 3. To provide more educational opportunities.  
<pre><code>               | 4. To develop technically trained manpower. |
</code></pre>
<table>
<thead>
<tr>
<th>Country</th>
<th>Expressed purpose for development of junior colleges</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ceylon</td>
<td>1. To further democratize education.</td>
</tr>
<tr>
<td></td>
<td>2. To assist in meeting mid-level manpower needs.</td>
</tr>
<tr>
<td></td>
<td>3. To offer an alternative to the academic education offered by the universities.</td>
</tr>
<tr>
<td></td>
<td>4. To provide needed additional spaces for qualified secondary school graduates.</td>
</tr>
<tr>
<td>Chile</td>
<td>1. To offer diversity of new occupational patterns for higher education.</td>
</tr>
<tr>
<td></td>
<td>2. To increase the percentage of lower socio-economic-level students in higher education.</td>
</tr>
<tr>
<td></td>
<td>3. To train more students for semiprofessional work.</td>
</tr>
<tr>
<td></td>
<td>4. To decentralize higher education.</td>
</tr>
<tr>
<td>Colombia</td>
<td>1. To provide the trained manpower required by a developing society.</td>
</tr>
<tr>
<td></td>
<td>2. To provide places for qualified secondary students.</td>
</tr>
<tr>
<td>Kenya</td>
<td>1. To provide a pool of skilled and technically qualified manpower.</td>
</tr>
<tr>
<td></td>
<td>2. To provide additional educational opportunities at the post-secondary.</td>
</tr>
</tbody>
</table>
The expressed purposes for the development of junior colleges in the above mentioned countries indicate the development of middle level manpower by extending educational opportunities to adults (non-traditional students) at the post-secondary level, and by offering the diversity of new occupational patterns for higher education. These expressed purposes relate directly to the community college functions and the necessity of extending adult education to the college level in order to develop the U.A.E. middle level manpower.

Why Most Nations Do Not Have Community Colleges

Singer (1969) advocated that the philosophy and concept of the community college movement has not received widespread international publicity. Yet, all underdeveloped nations know that most of the economic success of the industrialized world has been due to its educational system and manpower development. Most of these third world countries have established four-year colleges and universities in the past, but only a few imported the idea of a comprehensive community college. The reasons were given by Singer (1969) in the following:

1. In its present form the community college has not been around as long as four-year colleges and university programs whose experiences are now being tapped for the benefit of developing countries.

2. Many inherited influences from the colonial history have developed an attitude toward higher education in the majority of third world countries. That national educational goals and favorable attitudes toward such practices as open door admissions, extensive
and continuing student personnel services, and a commitment to community outreach programs in general have been the exception, not the rule. It is only in recent years that such historical biases as these have begun to change.

3. The most serious roadblock still remains in the transfer of community colleges to other nations. Many member community colleges in the American Association of Junior Colleges have formally signified an interest and willingness to expand their world study programs, to welcome foreign students on their campuses, to work toward overseas faculty exchange programs, and to send education advisory teams to the less-developed countries. But with rare exceptions, the problems of image and academic standing have blocked most efforts to reach a "take-off" point with such programs. In government sponsored projects particularly, offensive and unfavorable comparisons with the supposedly superior faculty, campus resources, and reputations of the four-year colleges and universities to work effectively abroad have effectively prevented serious consideration of the community colleges for the Agency for International Development (AID) or other government sponsored education projects in the developing world.

Is the Community College Idea Useful for Other Countries?

B. Lamar Johnson (1961), who served as an American specialist in higher education for the United States in New Zealand, the Philippines, the Rhodesias, Nyasaland, and South Africa, based his findings about the community college after an 8-month trip to more
than 30 countries in Asia, Africa, Europe, the Middle East, Australia, and islands of the Pacific. He explored the possible implications of the American community college in other cultures and concluded that among the needs of many other cultures, particularly in underdeveloped nations, are those for an education which is relevant to their national needs. "Clearly, this institution can have profound implications for education in other cultures" (Johnson, 1961, p. 8).

Karim-el-din (1977), in his doctoral dissertation on The Community College Concept: Its Relevance and Applicability to the Sudan, found that all individual functions in his questionnaire were highly desirable and concluded that with slight modifications, the community college was considered to be an appropriate innovation in higher education which was highly applicable to the Sudan.

Collins's Required Preconditions

Collins (1968) stated three conditions which a country must meet if it is to successfully establish a community college system. His required preconditions as applied to the U.A.E. are as follows:

1. Does the U.A.E. have a secondary school system graduating more students than its universities can absorb?

This first research question generated the following first research hypothesis which is: The number of high school graduates is greater than entering students in all institutions of higher education in the U.A.E. The direction stated in the hypothesis is indicated by the secondary sources of literature which indicated that in 1976 high school graduates wishing to pursue post-secondary courses...
had to go abroad (Encyclopedia of the Third World, 1978, p. 1504) because the U.A.E. university was opened for the first time in the fall of 1977. Today, in 1980, high school graduates who score high on their national exam may choose to study abroad at government expense. The government also offers scholarships to its eligible students to study medicine, engineering, and other specialized fields, as well as graduate studies, abroad.

To test this hypothesis, a decision rule for potential students entering higher education institutions by Halstead (1974, p. 307) was used: If the present system of higher education in the U.A.E. is serving 75% of the high school graduates, then the community college system is not needed in the U.A.E.; if, on the other hand, the present system of higher education in the U.A.E. is serving less than 75% of the high school graduates, then the community college system is needed in the U.A.E.

2. Collins's second precondition states: Is the U.A.E. economy potentially ready to employ the trained students of the community college?

This second research question generated the following second research hypothesis which is: The U.A.E. economy has the potential to employ all the trained students from community colleges and all other post-secondary institutions. The direction stated in the hypothesis is indicated by the secondary sources of literature which indicate that the U.A.E. has imported 98% of its labor force from abroad (Encyclopedia of the Third World, 1978, p. 1502).
To test this hypothesis, a decision rule of the supply and demand of middle level technical workers was used: If the demand for middle level technicians and managers is less than the supply of middle level trained students from institutions of higher education in the U.A.E., then the community college is not needed in the U.A.E.; if, however, the demand for middle level technicians and managers is greater than the supply of middle level trained students from institutions of higher education in the U.A.E., as measured by the number of imported workers from abroad, then the community college is needed in the U.A.E.

3. Collins's third precondition states: Would the government of the U.A.E. support the idea for community college development?

This third research question generated the following third research hypothesis which is: In the U.A.E. the majority of selected educational officials including the Minister of Education and Youth will support the individual functions of the community college.

There were two decision rules used to test this hypothesis:
(a) If 50% or more of the selected educational officials in the U.A.E. indicate a desirability of 50% or more for each individual function of the community college, then there is government support for the idea of community college development in the U.A.E. (b) If the majority of the selected educational officials in the U.A.E. rank order many or a number of the community college functions higher than the occupational (technical) education function, that would indicate government support for the idea of community college development in the U.A.E.
CHAPTER III

THE METHODOLOGY

Introduction

The petroleum production of the U.A.E. in 1979 was over 1.8 million barrels per day (International Petroleum Encyclopedia, 1980, p. 224). This daily production of oil generated an income of more than 16 billion dollars in 1979. These amounts of revenues within the past decade created a great economic expansion in the U.A.E., and the great shortage of trained middle level technicians and managers is of major concern.

The present education system is geared toward the development of the traditional students at the vocational high school level which is still in its initial (infancy) stage. Therefore, the purpose of this study was to explore the feasibility of a comprehensive community college system in the U.A.E. that could assist the government in meeting the demand for trained middle level technicians and managers.

Statement of the Hypotheses

Based upon the statement of the problem in Chapter I and the related review of the literature, the following hypotheses are stated in research form:

1. In the U.A.E., the number of high school graduates is greater than the entering students in all institutions of higher education.
2. The U.A.E. economy has the potential to employ all the trained students from community colleges and all other post-secondary institutions.

3. In the U.A.E., the majority of selected educational officials including the Minister of Education and Youth will support the individual functions of the community college.

Data Sources for the First Hypothesis

Primary data were gathered for the first hypothesis from the statistical department at the Ministry of Education and Youth in the U.A.E. concerning the number of high school graduates in the U.A.E. and the number of students in the university at Al-Ain.

Data Sources for the Second Hypothesis

Primary data were gathered for the second hypothesis from the Ministry of Education and Youth in the U.A.E. about the number of middle level trained (graduated) students from higher education institutions in the U.A.E. Also, primary data were gathered from the Ministry of Labor and Social Affairs about the unemployment figures of middle level technicians and managers and the demand for additional employees of this level.

Survey of Opinions for the Third Hypothesis

In order to answer the third hypothesis, a survey instrument was constructed to collect data on opinions of selected educational officials in the U.A.E. concerning the usefulness of the community college
functions. This instrument will be described in the instrumentation section of this chapter.

Another function of this survey was to determine the educational officials' priorities for the functions of the community college. If the educational officials rank order the technology (occupational education function) higher than the other functions, that would indicate the lack of support for the community college in the U.A.E. Ranked conversely, that information would suggest support for Hypothesis number 3.

The Sample

The sample included the majority of available educational leaders in the country when the researcher visited the U.A.E. This sample was selected because of authority and influence on educational policies in the U.A.E. The Minister of Education and Youth, who has the highest and only authority on establishing and implementing new educational policies at all levels in the U.A.E., is also the president of the recently proposed higher education council and the President of the U.A.E. University. Selected officials from the Ministry of Education and Youth whose expertise, positions, or opinions the minister considers and might influence his decisions on educational matters and policies were: the advisor to the Minister of Education and Youth who reviews all proposals and presents them to the Minister, the Assistant Undersecretary for Vocational and Technical Education, the Director of Statistical Department, and an educational supervisor. Also, the majority of experts and advisors who were hired by UNESCO.

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at the request of the Ministry of Education and Youth to improve all aspects and specializations of all levels of the educational system in the U.A.E. were given the questionnaire.

These UNESCO experts mentioned above were specialists in education planning, administration of higher education, teachers' training, teaching methods and audio visuals, and education legal affairs.

Description Statement

Because some educational officials in the U.A.E. were not familiar with the community college concept, a description statement was used to assist them in judging the feasibility of the concept in the U.A.E. The description statement was adapted and modified statistically from that used by Karim-al-din in his doctoral research in 1977. He used the description statement as a necessary background for individuals in Sudan who were not acquainted with the community college concept.

The Instrument

The main purpose of the questionnaire was to find out the feasibility for a comprehensive community college system in the U.A.E. The questionnaire was designed to solicit responses to various concepts expressed in the description statement about the community college in the United States (see Appendix B, description of a community college). The instrument that was used in this study was adapted and modified from the questionnaire used by Karim-el-din (1977) in his doctoral research (see Appendix C, the questionnaire).
The following modifications were made to his questionnaire:

1. The functions of the community college were listed according to their alphabetical order so none of the respondents to this questionnaire would be influenced by their rank.

2. The term "terminal function" was changed to "occupational education function" so when the term was translated to Arabic its translation was understood by the respondents. Although occupational education at community colleges includes the vocational, terminal, paraprofessional, and technical programs (Thornton, 1972), it was necessary to make the change in language.

3. The term "adult education function" was modified to "adult and continuing education function" because the two terms mean different things in the U.A.E.

4. The term "general education function" was modified to "citizenship and general education function" so that the respondents perceived the term better when it was translated.

5. The term "developmental education function" was modified to "student developmental education function" so that the respondents perceived the development as for students and not for something else like community development.

6. The term "open door principle" was added to functions of the community college because it is the most important philosophy of the community college for its democratic policy to open its door to everybody who wants to be educated regardless of their educational background. It was for this purpose as well as others that junior colleges were changed to community colleges.
The questionnaire was accompanied by an introductory letter from the College of Education at Western Michigan University which was certified by the U.A.E. Embassy in Washington, D.C., and was hand-delivered personally to the respondents explaining the purpose of this study (see Appendix A).

This study was limited to determine the feasibility for a community college system in the U.A.E. Financing, site location, staffing, and other implementation factors, while very important, were not included in the scope of this study.

Pilot Test

The questionnaire was pilot tested on five graduates from the United Kingdom whose native language is Arabic. This questionnaire was accompanied by a statement describing the community college and its functions and instructions on how to answer the questionnaire.

Their results showed that the description statement of the community college and the explanation of its functions were too long to read even when translated into Arabic. So they suggested to the researcher that when he interviewed his respondents, he should verbalize in Arabic the description statement of the community college to each respondent, then he should explain the first individual function in Arabic and when they circle the appropriate desirability (Part I of the questionnaire) of that function, then he should explain the second function to them, and when they circle the appropriate desirability of the second function, then he should explain the third function, and so on. The researcher followed these
suggestions when he conducted his interviews with his sample respondents.

The Interview

The method suggested by the pilot test respondents was used with the population sample. When the interviews were conducted, most respondents, after answering (circling) the appropriate desirability of each individual function, revealed their reasons voluntarily which the researcher was recording, and when they did not volunteer their reasons, he held his questions until they had completed both parts of the questionnaire.

The above method created an atmosphere of give-and-take between the respondents and the researcher because most of them had never heard of a community college before. The majority of respondents felt very comfortable and revealed their personal feelings and opinions about the idea of a comprehensive community college system in the U.A.E.

The first thing that this investigator did after arriving in the capital, Abu Dhabi, was to hold a meeting with the statistical director at the Ministry of Education and Youth. The director was briefed about the purpose of the study and presented the introductory letter from the College of Education at this University which, as suggested earlier, had been certified by the Embassy of the U.A.E. in Washington, D.C., prior to the researcher's trip abroad. The director became very much interested in the study and provided the investigator with many official statistical documents, answered the questionnaire,
and gave freely of the necessary time to be interviewed. The director then made a telephone call to the Minister's advisor and told him about the importance of this study and requested a meeting with him. Later that day he introduced the investigator to the Minister's advisor, and an appointment was scheduled with the Minister's advisor for the next day at 7:30 a.m. The Minister's advisor was most helpful in arranging appointments for the investigator with the Minister of Education and Youth, other educational officials, and the UNESCO experts and advisors in the U.A.E.

Data Gathering and Analysis

The data about the educational system in the U.A.E. and the survey of opinions about the feasibility study of a community college system in the U.A.E. were collected by the investigator during his visit to the U.A.E. The study trip took 12 days from June 27 to July 8, 1980.

The data collected from the survey of opinions (Part I) were analyzed using the following methods. First, the responses were tabulated. Then the total responses were added for each function. These totals were then converted into frequencies and then into percentages. The data from Part II of the questionnaire (the priority of functions) were treated as follows: First, the responses were tabulated for each function; second, the responses for each function were added and then were tabulated in their corresponding priorities; third, they were multiplied by their corresponding priorities, and then the scores of each function were added. For example, adult and
continuing education function was assigned as first priority by four respondents (1 x 4), second priority by two respondents (2 x 2), and third priority by four respondents (3 x 4). Total respondents were 10 (N = 10). Therefore, to achieve the accumulated total for this function, each ranked priority was multiplied by its corresponding number of respondents:

\[
\begin{align*}
1 \times 4 &= 4 \\
2 \times 2 &= 4 \\
3 \times 4 &= 12
\end{align*}
\]

then adding the above results:

\[
4 + 4 + 12 = 20,
\]

makes the accumulated total for the adult and continuing education function.

The first priority was determined by the function with the least accumulated total. The second priority was determined by the function with the next least accumulated total and so on to the last and eighth function with the largest total. Then these functions were arranged according to their rank in priority. The recorded data from the interviews were summarized and arranged according to their areas and functions.
CHAPTER IV
THE FINDINGS

Introduction

The purpose of this study was to establish the feasibility of a comprehensive community college system in the U.A.E. that could assist the government in meeting the demand for trained middle level technicians and managers. The findings of the investigation are presented in the analysis of data contained in this chapter for the three hypotheses.

First Hypothesis Data Sources and Analysis

Primary statistical data were gathered from the statistical department at the Ministry of Education and Youth in Abu Dhabi regarding the annual number of high school graduates and the total number of high school graduates entering the U.A.E. University as shown in Table 3. The data is available for 3 years only, because the university is only 3 years old.

The figures in Table 3 showed that there were more high school graduates in the U.A.E. than those students entering its only university. In the fall of 1979, the U.A.E. University admitted only 37.9% of the previous year's high school graduates against the 75% figure that was recommended by Halstead (1974) for serving potential students in higher education. Therefore, based on Halstead's decision rule,
there is a need for a community college system in the U.A.E.

### Table 3

Annual Number of High School Graduates Compared to Annual Number of Students Entering U.A.E. University

<table>
<thead>
<tr>
<th>Academic Year</th>
<th>High School Graduates</th>
<th>Admitted Students by the U.A.E. University</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Annual Number of Graduates</td>
<td>Annual Number of Entering Students</td>
</tr>
<tr>
<td>76-77</td>
<td>922</td>
<td>77-78</td>
</tr>
<tr>
<td>77-78</td>
<td>1,172</td>
<td>78-79</td>
</tr>
<tr>
<td>78-79</td>
<td>1,560</td>
<td>79-80</td>
</tr>
</tbody>
</table>

**Note.** From Bulletin No. 1, June 1980, p. 11.

Second Hypothesis Data Sources and Analysis

There were no data available at this time about the supply or the demand for additional employees of middle level technicians and managers. The economic growth and the development of industry, housing, and other sectors of the economy have created shortages of manpower which forced the U.A.E. government to import skilled manpower from abroad to fill the needs of its rapidly expanding economy.

According to the *Encyclopedia of the Third World* (1978, pp. 1497-1505), the labor population that is economically active is 2% U.A.E. subjects, 7% non-U.A.E. Arabs, and 91% Indians, Pakistanis, and Iranians. These immigrants with their families form 75% of the

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total estimated population of 655,937.

The economy of this oil-rich country has the potential of employing all trained students from community colleges and all other post-secondary institutions, especially since 98% of its labor force consists of employed immigrants from all over the world ( Encyclopedia of the Third World, 1978, p. 1502). Therefore, there is a need for a community college system in the U.A.E. according to the second hypothesis.

The Third Hypothesis

The survey of opinions for this hypothesis was tested by a questionnaire and structured interview techniques of selected educational officials in the U.A.E. that were available during this researcher's visit, and the majority of the UNESCO experts in the U.A.E.

Interview Responses and Data Analysis for Part I of the Questionnaire

The sample size that responded was 10; five of the respondents were from the Ministry of Education and Youth, including the Minister of Education and Youth, and the other five were the UNESCO advisors in the U.A.E. A questionnaire of two parts was hand delivered to each respondent. The data obtained from both parts of the questionnaire were supplemented by additional data from the interviews. The interviews dealt mainly with questions on what were their reasons and logic in answering as they did about each function on both parts of the questionnaire.
The total frequencies shown in Table 4 in the ninth column were used as a determinant for the functions' desirability rank order in the last column. When tied scores appeared in the ninth column, the first column (highly desirable) was used in order to determine their rank order.

As shown in Table 4, all the functions of the community college as developed throughout the United States were considered as highly desirable or somewhat desirable by the majority of respondents in the U.A.E. When the percentages of these two responses, 1 (highly desirable) and 2 (somewhat desirable), were added, the total desirability of the community college functions was identified by using the decision rule of 50% total desire or more for each function. The desirability ranged from 50% for the student developmental education function to 100% for adult and continuing education function.

The student developmental education function was considered undesirable by 50% of the respondents because the government of the U.A.E. already sends its students who are considered as late bloomers, or with special learning problems, to specialized schools outside the country at government expense. Also, respondents indicated that first priorities should be given to traditional achieving students because of the urgent need for middle level manpower. Influenced by these facts were 40% of the respondents who considered this function at this time as somewhat desirable; only 10% responded as highly desirable.

According to the responses, the most desirable function was the adult and continuing education function. One hundred percent of the respondents considered it desirable. Seventy percent of these
Table 4
Data Analysis of Part I of Questionnaire
(N = 10)

<table>
<thead>
<tr>
<th>Community College Functions</th>
<th>Desirability of: Frequency</th>
<th>Desirability of: Percentages</th>
<th>Total Desirability of 1 + 2</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>No.</td>
<td>1^a 2^a 3^a 4^a</td>
<td>1^a 2^a 3^a 4^a</td>
<td>Total Freq.</td>
<td>Total %</td>
</tr>
<tr>
<td>1 Adult and continuing education function</td>
<td>7 3 - -</td>
<td>70 30 - -</td>
<td>10 100</td>
<td>1</td>
</tr>
<tr>
<td>2 Citizenship and general education function</td>
<td>7 2 1 -</td>
<td>70 20 10 -</td>
<td>9 90</td>
<td>2</td>
</tr>
<tr>
<td>3 Community service function</td>
<td>3 3 4 -</td>
<td>30 30 40 -</td>
<td>6 60</td>
<td>7</td>
</tr>
<tr>
<td>4 Counseling and guidance function</td>
<td>6 1 1 2</td>
<td>60 10 10 20</td>
<td>7 70</td>
<td>3</td>
</tr>
<tr>
<td>5 Occupational education function</td>
<td>6 - 4 -</td>
<td>60 - 40 -</td>
<td>6 60</td>
<td>5</td>
</tr>
<tr>
<td>6 Open door policy principle</td>
<td>5 1 3 1</td>
<td>50 10 30 10</td>
<td>6 60</td>
<td>6</td>
</tr>
<tr>
<td>7 Student developmental education function</td>
<td>1 4 5 -</td>
<td>10 40 50 0</td>
<td>5 50</td>
<td>8</td>
</tr>
<tr>
<td>8 Transfer education function</td>
<td>4 3 3 -</td>
<td>40 30 30 -</td>
<td>7 70</td>
<td>4</td>
</tr>
</tbody>
</table>

^a1 = highly desirable, 2 = somewhat desirable, 3 = not desirable, and 4 = do not know.
respondents considered it highly desirable, and they have advocated
that the government encourage adult education in every possible way
for men and women. They also indicated that if adults have the
opportunity to further their education at a community college, they
would be more enthused and determined. Also, the respondents ex-
plained the progress in adult education by the growth of adult stu-
dent populations and adult centers throughout the country over the
past 8 years (see Appendix D, Table D). All respondents were very
encouraging to the continuing education idea at the community college
level.

The next most desirable function was that of citizenship and
general education function, and 90% of the responses rated it as
desirable. One respondent (10%) indicated that it was not desirable
because citizenship already exists among them in the U.A.E. because
of their extended family unit and tribal upbringing, and there was no
need for it. He also advocated that because Americans lack citizen-
ship, they always stress it in their educational system, but in the
U.A.E. "we have a lack of general education among our people, and
therefore, we will always encourage general education because it is
more essential to us."

The functions that came immediately after the citizenship and
general education were two, the counseling and guidance function and
the transfer education function. Seventy percent of the responses
for each function rated these functions as desirable. In regards to
the responses concerning the counseling and guidance function, 60%
rated it as highly desirable because it already exists in their high
school system, and the respondents thought that it would also be important to extend this function to the community college level. One responded that this function is not desirable because most parents keep insisting that their children should become doctors or engineers, and because the country is rich, those parents always try to influence the government to send their children abroad on government expense to study.

In regards to the transfer education, 70% of the respondents rated it desirable, of whom 40% indicated that this function is highly desirable, and 30% indicated that it was somewhat desirable. Also they indicated that students who are high achievers and in the upper level of their classes at the community college should be allowed to transfer. Thirty percent of the respondents rated it not desirable and indicated that there was no need for this function.

The functions that followed next with tied scores of 60% each were three. The first of these functions was the occupational education function of which 60% rated it as highly desirable, and these respondents said that it was vital and important to the development of the middle level manpower, and the other 40% who rated it as not desirable said that it was not desirable because the nationals always avoid this middle level of education and aim at higher levels because their country is so rich and could afford to import foreign workers as middle level technicians and managers. One respondent said, "The government encourages and people look the other way and neglect."

The second of these functions with tied scores of 60% each was the open door principle with 60% of the respondents rating it as desirable.
Thirty percent rated it as not desirable, and 10% did not know. Those who responded with 30% as not desirable gave the following reasons: "Maybe it will take 10 years for the next generation to appreciate its value and to take advantage of its opportunity," "it will not work because the police and military schools pay very high monthly salaries to their students while attending school, and that will absorb the potential community college students," "in philosophy it is very desirable but the public has to be educated first, then it should be experimented with, and besides, we want quality students now, not quantity." The third of these functions with tied scores of 60% each was the community service function. Thirty percent of the respondents rated it as highly desirable and 30% rated it as somewhat desirable. Forty percent of the respondents rated it as not desirable because of the separation of the sexes which would limit most activities to men only; these respondents advocated that: "The majority of the public and nonstudents would not understand its value and would not protect these facilities," and "most educated people think that the college should be the place for elites only and should have total independence from the general public only if it provides social services."

As stated earlier in this chapter, all of the functions of the community college were rated as highly desirable or somewhat desirable. However, the functions of adult and continuing education, citizenship and general education, counseling and guidance, and transfer education were rated as more important functions than the others.
Interview Responses and Data Analysis
of Part II of the Questionnaire

In Part II of the questionnaire, the priority of the functions, the respondents were requested to arrange the eight different functions of the community college according to their relative importance of priority. The function that became the first priority was assigned number 1, the function that became the second priority was assigned number 2, and so on to the least priority, number 8. The responses received were tabulated in Tables 5 and 6.

It was evident from the analysis of the responses that there were differences between the priority and the desirability of the community college functions. The majority of functions, five, maintained the same position in relation to both degree of priority and desirability: Adult and continuing education that received a desirability of 100% was rated as first priority; citizenship and general education that received a desirability of 90% was rated as second priority; counseling and guidance that received a desirability of 70% was rated as third priority; occupational education that received a desirability of 60% was rated as fifth priority; and open door policy principle that received a desirability of 60% was rated as sixth priority (see Table 7 for comparison).

Functions that did not maintain the same position in relation to both degree of priority and desirability were three: (a) The student developmental education that received a desirability of 50% was rated low in the priority too, and ranked as seventh, (b) the community service that received a desirability of 60% was rated third in
Table 5  
The Responses to the Priorities of the Community College Functions  
\((N = 10)\)

<table>
<thead>
<tr>
<th>Community College Functions</th>
<th>Priority 1</th>
<th>Priority 2</th>
<th>Priority 3</th>
<th>Priority 4</th>
<th>Priority 5</th>
<th>Priority 6</th>
<th>Priority 7</th>
<th>Priority 8</th>
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<tr>
<td>Adult and continuing education function</td>
<td>4</td>
<td>2</td>
<td>4</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
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<td>2</td>
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<td>3</td>
<td>4</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
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<tr>
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<td>1</td>
<td>-</td>
<td>2</td>
<td>5</td>
<td>-</td>
<td>1</td>
<td>-</td>
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<td>Occupational education function</td>
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<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Open door policy principle</td>
<td>1</td>
<td>2</td>
<td>-</td>
<td>-</td>
<td>-</td>
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<td>2</td>
</tr>
<tr>
<td>Student developmental education function</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>1</td>
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<tr>
<td>Transfer education function</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>5</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Community College Functions</td>
<td>Priority 1</td>
<td>Priority 2</td>
<td>Priority 3</td>
<td>Priority 4</td>
<td>Priority 5</td>
<td>Priority 6</td>
<td>Priority 7</td>
<td>Priority 8</td>
</tr>
<tr>
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<td>------------</td>
<td>------------</td>
<td>------------</td>
<td>------------</td>
<td>------------</td>
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<td>9</td>
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<td>-</td>
<td>8</td>
<td>5</td>
<td>6</td>
<td>21</td>
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<tr>
<td>Open door policy principle</td>
<td>1</td>
<td>4</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>6</td>
<td>14</td>
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<tr>
<td>Student developmental education function</td>
<td>-</td>
<td>-</td>
<td>3</td>
<td>4</td>
<td>10</td>
<td>18</td>
<td>7</td>
<td>16</td>
</tr>
<tr>
<td>Transfer education function</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>5</td>
<td>30</td>
<td>7</td>
<td>16</td>
<td>59</td>
</tr>
</tbody>
</table>

aThe total scores were determined by multiplying the priority frequencies of each function in Table 5 by its corresponding priority in the above Table 6, then those scores were added for each function to determine its total. Then those totals determined the rank order of functions' priorities.
Table 7
Comparison of the Desirability and Priority of the Community College Functions
(N = 10)

<table>
<thead>
<tr>
<th>Community College Functions</th>
<th>Percentage of Desirability</th>
<th>Desirability Order From Table 4</th>
<th>Priority</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Highly Desirable</td>
<td>Somewhat Desirable</td>
<td>Total Desirability</td>
</tr>
<tr>
<td>Adult and continuing education function</td>
<td>70</td>
<td>30</td>
<td>100%</td>
</tr>
<tr>
<td>Citizenship and general education function</td>
<td>70</td>
<td>20</td>
<td>90%</td>
</tr>
<tr>
<td>Community service function</td>
<td>30</td>
<td>30</td>
<td>60%</td>
</tr>
<tr>
<td>Counseling and guidance function</td>
<td>60</td>
<td>10</td>
<td>70%</td>
</tr>
<tr>
<td>Occupational education function</td>
<td>60</td>
<td>-</td>
<td>60%</td>
</tr>
<tr>
<td>Open door policy principle</td>
<td>50</td>
<td>10</td>
<td>60%</td>
</tr>
<tr>
<td>Student developmental education function</td>
<td>10</td>
<td>40</td>
<td>50%</td>
</tr>
<tr>
<td>Transfer education function</td>
<td>40</td>
<td>30</td>
<td>70%</td>
</tr>
</tbody>
</table>
priority, and (c) the transfer education function that received a desirability of 70% ranked as eighth in priority (see Table 7).

Those changes in the functions' positions in relation to their desirability and priority reflect the respondents' judgment for the educational needs (the desirability) and the importance and urgent needs (the priority) of these functions at the present time.

Statistical Conclusion of the Third Hypothesis

Since all the functions of the community college were rated as highly desirable by all respondents by using the decision rule of 50% of total desirability or more for each individual function (in Part I of the questionnaire), and since respondents ranked the occupational (technical) education function a fifth priority, meaning that other functions were ranked higher than this function (in Part II of the questionnaire), the results indicated the support of educational leaders of the U.A.E. government for the idea of community college development.
CHAPTER V

SUMMARY

Purpose of the Study

The purpose of this study was to explore the feasibility of a comprehensive community college system in the U.A.E. that could assist the government in meeting the demand for middle level technicians and managers.

To conduct this study, Collins's (1968) three preconditions for establishing a community college in a developing country were examined in the following three research hypotheses:

1. In the U.A.E., the number of high school graduates is greater than the entering students in all institutions of higher education.

2. The U.A.E. economy has the potential to employ all the trained students from community colleges and all other post-secondary institutions.

3. In the U.A.E., the majority of selected educational officials including the Minister of Education and Youth will support the individual functions of the community college.

The Procedure

Primary data were gathered from the Ministry of Education and Youth at Abu Dhabi in regards to the education system in the U.A.E.
A survey of opinions was employed to test government support for the idea of a community college development in the U.A.E. The survey population that were approached were the Minister of Education and Youth, selected educational officials from the Ministry of Education and Youth, and the majority of the UNESCO experts and advisors in the U.A.E.

The survey of opinions was conducted by a questionnaire that was adapted and modified from the questionnaire used by Karim-el-din (1977) in his doctoral research.

The Findings

The first hypothesis primary data indicated that there were more graduates of high schools in the U.A.E. than there were students entering its only university.

For the second hypothesis, there were no data available at this time about the supply or the demand for additional employees of middle level technicians and managers. The U.A.E. government was forced to import 98% of its labor force from abroad to meet the demand of its expanding economy. Based on these facts, this oil rich country has all the potential to employ all the trained students from community colleges and all other post-secondary institutions.

For the third hypothesis, a survey of opinions was conducted by a questionnaire and structured interview techniques of selected educational officials in the U.A.E. that were available during this researcher's visit. The sample size was 10. Five of the respondents were from the Ministry of Education and Youth, and the other five
were the UNESCO advisors in the U.A.E.

The questionnaire consisted of two parts. In Part I of the questionnaire, respondents evaluated the eight functions of the community college according to their judgment of the educational needs in the U.A.E. The responses were (1) highly desirable, (2) somewhat desirable, (3) not desirable, and (4) do not know. The scores of the first two favorable responses were added. The decision rule of 50% or more of desirability was used for each function. Results indicated that all of the eight functions were either highly or somewhat desirable: adult and continuing education (100%), citizenship and general education (90%), community service (60%), counseling and guidance (70%), occupational education (60%), open door policy (60%), student developmental education (50%), and transfer education (70%). (see Table 4).

In Part II of the questionnaire, the respondents were requested to rank the eight functions of the community college according to their relative importance. The function that became the first priority was assigned number 1, the function that became the second priority was assigned number 2, and so on to the least priority, number 8. The ranking of priority order obtained from first to last was:

(1) adult and continuing education function, (2) citizenship and general education function, (3) community service function, (3) counseling and guidance function, (5) occupational education function, (6) open door policy principle, (7) student developmental education

\(^1\)There was a tie in priority of function and both functions were ranked as number 3.
function, and (8) transfer education function (see Table 7).

It was also evident from the analysis of the responses that there were differences between the priority and the desirability of the community college functions. The majority of functions that maintained the same position in relation to both degree of priority and desirability were five: (a) adult and continuing education that received a desirability of 100% was rated as first priority, (b) citizenship and general education that received a desirability of 90% was rated as second, (c) counseling and guidance that received a desirability of 70% was rated as third priority, (d) occupational education that received a desirability of 60% was rated as fifth priority, and (e) open door policy principle that received a desirability of 60% was rated as sixth priority (see Table 7).

Functions that did not maintain the same position in relation to both degree of priority and desirability were three: (a) student developmental education function that received a desirability of 50% was rated low in the priority too and ranked as seventh, (b) the community service function that received a desirability of 60% was rated third in priority, and (c) the transfer education function that received a desirability of 70% ranked as eighth in priority (see Table 7).

The changes in the above three functions' positions in relation to their desirability and priority reflected the respondents' judgment on the U.A.E. educational needs (the desirability) and the importance and urgent needs (the priority) of these functions at the present time.
Conclusion

Like most third world countries, the U.A.E. is faced with the need for middle level manpower and skilled workers. Its expanding economy forced the government to import skilled workers from abroad and these immigrants with their families form 75% of the total population. One major problem facing the government of the U.A.E. in regards to middle level manpower is what new values and attitudes are to be injected in the minds of those students enrolled now in schools and how this is to be accomplished. The general attitude is that they have a rich country and could import middle level technicians and managers from abroad. This attitude would have to be changed and directed toward the idea of developing middle level manpower and self-dependence.

Based upon the findings and results of this study, the two-year comprehensive community college system, as an institution of higher education that pertains to a changing economic order and middle level manpower development with defined manpower needs, is found to be feasible to the educational needs of the U.A.E. All its functions were found desirable, and the three necessary preconditions set by Collins (1968) for its establishment were present. Because the three functions of community service, students' developmental education, and transfer education were ranked low in the priority order of the community college functions by the majority of respondents, the structure of the community college in the U.A.E. would be different from that in the United States. Therefore, it is concluded that a
community college system is feasible in the U.A.E. and that it should include the above modifications.

It is evident that few adults above 30 years of age in the U.A.E. have an education beyond that needed for reading the Koran. With the largest per capita income in the world and 98% of its labor force being imported, it is clear that some educational system for civic, social, and technical needs, beyond what exists at present, is forthcoming in the U.A.E. if the nation is going to meet its unique problems.
APPENDICES
Appendix A

Certified Letter of Introduction
Embassy of the United Arab Emirates  
Cultural Division  
600 New Hampshire Avenue, NW  
Suite 750  
Washington, D.C. 20037  

Dear Sirs:

This is to certify that Mr. Kadhim Abdul Rassool Ali, a doctoral student majoring in administration of higher education in the Department of Educational Leadership at Western Michigan University, has completed all his doctoral courses successfully and his dissertation committee has approved the following topic for his study: "Feasibility Study for a Community College System in the United Arab Emirates."

Kadhim has reached the point where he is required to collect his data. We are asking your assistance in contacting the educational officials of your country.

Kadhim will gather the data in regards to the following:

1. the annual number of high school graduates;
2. the total number of entering students to all higher education institutions, colleges, and universities annually;
3. the need for trained middle level technicians and managers in your country; and
4. the opinions from selected educational officials concerning the functions of a community college by a questionnaire.

Your assistance will be greatly appreciated.

Respectfully yours,

Dr. Richard E. Munsterman, Committee Chairman  
Dr. Carol F. Sheffer, Department Chairperson  
Dr. John E. Sandberg, Dean of the College of Education
Appendix B

Description of a Community College
DESCRIPTION OF A COMMUNITY COLLEGE

The community college is a post-secondary institution of higher education which offers a wide variety of programs up to two years in duration.

This type of institution has objectives which already have been practiced by existing universities and technical institutes, and it also has other unique objectives. Together these multiple objectives interact to produce a new institution which represents a new avenue to higher education. This institution of higher education does not replace, but strengthens and supplements, the existing universities and technical institutes in the country.

The community college was established in 1901. Today, in 1980, there are 1,155 such colleges with over 4 million students enrolled for credit courses throughout the United States.

The community college system has attracted the attention of educational leaders in many countries as a thoughtful approach to the middle level manpower development, and it has been experimented with successfully in the following countries: Japan, Canada, Australia, England, Sweden, Chile, Colombia, Ceylon, Jordan, Kenya, and the Dominican Republic.

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Functions of a Community College

Adult and Continuing Education Function

Adult education signifies that adults of all ages and in all stations of life are in need of an endless variety of education opportunities.

Continuing education suggests that no one is too old to learn, that one's education is never finished. Most adults are employed in full-time jobs during the day, the availability of evening and extended day programs and courses comes in handy for adults to continue their education after working hours.

Schedules of classes are unconventional, many classes scheduled are at off-campus locations, in community centers, factories, and office buildings. Classes are held on weekends, in off-seasons, and for varying lengths of time. Many working people and housewives prefer to have longer class sessions fewer times a week.

These adults may enroll in regular college credit courses or in a variety of short term courses, some with credit and some without. These courses range from the regular transfer level, general, or occupational studies to the noncredit short term courses, weekend seminars, and conferences.

If a democratic process is to operate effectively, then an enlightened and dedicated public is essential. Adult education programs contribute to the improvement of the nation's social and political health by offering instruction in politics, group organization, human nature, and leadership.
Citizenship and General Education

This program is designed specifically for young students to prepare them for the responsibilities which they share in common as citizens in a free society and for the beneficial and creative participation in a wide range of life activities. Certain courses in general studies are core courses and require all students to study regardless of their aim and the degree they are studying for at the community college.

Community Service

The community college is oriented toward the educational, social, cultural, and economical needs of the community in which it is located.

Community college services provided by the community college are:

An open campus. The objective of an open campus is to invite the public and say "This is your college and you are most welcome to enter." Areas which could be opened to the public include dining and conference rooms, the physical education facilities, the theater and auditorium, the music rooms, the art displays, health centers, child care centers, and college museums.

Community as a classroom. The most significant educational service which the local community can offer the college is the development of an extensive program of cooperative work-study education. When college students have the opportunity to learn, and also earn,
while working in an office, factory, hospital, and social work agency, then these students enjoy the best possible classroom and laboratory for real life learning experience.

**Sharing cultural experiences with the community.** The open campus college should invite the public to use the college's facilities and seek to promote social, cultural, and recreational activities. These activities could be lecture-series, musical festivals, film programs, and many other cultural events.

**Assistance in community problems.** Finally, the community college teachers and counselors could offer their expertise in the analysis of community problems through research field studies and surveys.

If a community college is to serve its community best, it has an obligation to advertise its talents so that the public knows what talents are available.

**Counseling and Guidance**

Because many students do not know what they want when they finish high school, the prime function of counseling and guidance at the community college is to assist students in making decisions which affect their educational, occupational, social, and personal lives.

Counseling will assist students understand and evaluate their potentialities and limitations, and to discover and develop ways and means of working out their problems and to take full advantages of their opportunities.

Besides assisting students in making choices of curriculum, courses, and career planning, counselors also assist students in
discovering their inner strengths and weaknesses as they face the many problems which arise from interpersonal social relationships and parental tensions.

The counseling staff should be composed of professionally trained counselors, a qualification which includes a minimum of a master's degree in counseling. Above all, the counselor must have desirable personality traits for establishing quick and easy rapport with students.

The Occupational Function

This function includes four programs:

Vocational programs. This kind of program is always specific and it prepares students to understand, and to be able to do the specific activities found necessary in accomplishing a given task. Its major emphasis is on practice rather than on theory. Also, students and workers could have an access to training or retraining in any occupation.

Terminal program. This program is for students who wish to pursue careers in occupations which do not demand four or more years of academic or professional work. Terminal courses lead directly into trade, industry, or business upon graduating from the community college with a diploma. These courses could be general, vocational, technical, or a combination of all of them, depending on the major of the student. The duration of this program is usually two years or less. Some terminal students discover latent talent during the course of their education at the community college and pursue a
university transfer program instead in the same college. Conversely, some students' initial goal is a university transfer program but they eventually realize that they have little interest or qualification for the difficulty of this program and voluntarily change their objectives to a terminal or vocational program. This valuable characteristic of the community college provides an environment whereby any student can alter his goals and still have the opportunity and time to find his place in life, while at a traditional college or university, there is little or no chance for indecision or reevaluation of his goals.

Paraprofessional programs. The increasing application of technology in professional fields have created new fields and jobs. These new fields have been open for individuals who can operate technical instruments under the direction of such professionals: doctors, engineers, scientists, and many others. This program prepares students to be laboratory technicians, engineering technicians, dental assistants, and so on. It is a field that requires a considerable skill in technique.

Technical programs. This program implies preparation for occupations within scientific and engineering fields where the worker will make use of instruments rather than muscular exertion. These technicians require more maturity and depth of scientific knowledge, and their scope of operation and education is narrower than that of the graduate scientist or engineer under whose direction they will work.
Open Door Principle

The open door principle means that any person who is over 18 years old, whether a graduate from high school or not, is welcome to attend the community college. Admission does not depend upon intelligence, grades, religion, race, background, or economic circumstances. However, open admission does not guarantee that a person will be admitted to any or all of the programs of the college simply because the student expresses a desire to enter that course or program. Placement tests are given to all entering students prior to registration, and for those who fail to make satisfactory scores in English and mathematics, remedial (developmental) courses are available. The college normally retains the right to place students in areas of learning where evidence indicates they have a reasonable chance for success.

Student Development Education

This program concerns youth and adults who have an insufficient background in education or poor high school records.

These students are classified as disadvantaged because either they come from poor families and minorities or are among the high school dropouts, the sick who often missed school, the lazy who matured later in life, or the late bloomers whose real abilities are not revealed until their late teens. All of these students come to college because they think that the road to success and a happy life is through education.
The comprehensive community college provides a place for these students to receive remedial courses, because past experience has demonstrated that not all disadvantaged students who were denied a higher education were nonachievers. Thoughtful educators do not confuse slowness with stupidity.

Remedial courses are usually taught in small classes of 15 to 20 students. These courses are offered in reading, English, and mathematics. Placement tests are given to all entering students prior to registration, and for those who fail to make satisfactory scores in English and mathematics, remedial work is available. Noncredit courses are given in elementary algebra, plane geometry, intermediate algebra, English fundamentals, natural science, consumer economics or social science, vocational orientation, and two elective courses.

Students who succeed in these remedial courses could be promoted from the developmental program into regular transfer courses or occupational courses after one semester or after one year.

Those students who do not succeed in the remedial program will also benefit from the year of developmental study. These students have acquired a general knowledge of the world about them and insight into their own personalities, goals, and talents.

The Transfer Function

This program is known as the university parallel or the college preparatory program. This program at the community college leads to the associate degree, that prepares students to enter colleges and universities granting a bachelor's degree, typically at the third
year level.

Many universities in the United States encourage students to attend the first two years at a community college. First, the university will have less pressure on it during the first two years. Second, these universities could expand and concentrate more on the graduate work and research.
Appendix C

Questionnaire
QUESTIONNAIRE

(PART I)

Desirability of the Functions
of the Community College

Instructions:

According to your judgment of the educational needs of the U.A.E., please evaluate the desirability of the community college functions using the following evaluation plan:

1 - highly desirable
2 - somewhat desirable, or with reservation
3 - not desirable
4 - do not know

Please circle the appropriate number for each function.

The functions are listed below according to their alphabetical order:

<table>
<thead>
<tr>
<th>Function</th>
<th>Desirability</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Adult and continuing education function</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>2. Citizenship and general education function</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>3. Community service function</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>4. Counseling and guidance function</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>5. Occupational education function</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>6. Open door policy principle</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>7. Student developmental education function</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>8. Transfer education function</td>
<td>1 2 3 4</td>
</tr>
</tbody>
</table>
QUESTIONNAIRE

(PART II)

Priority Order of the Functions
of the Community College

Instructions:

Please rank the functions of the community college in the order of their importance to the needs of the U.A.E.

Assign the function which you think is the most important a priority of number 1, assign the second most important function a priority of number 2, and so on through number 8 (the function which you think is the least important).

The functions are listed below according to their alphabetical order.

<table>
<thead>
<tr>
<th>Priority</th>
<th>Functions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Adult and continuing education function</td>
</tr>
<tr>
<td>2.</td>
<td>Citizenship and general education</td>
</tr>
<tr>
<td>3.</td>
<td>Community service function</td>
</tr>
<tr>
<td>4.</td>
<td>Counseling and guidance function</td>
</tr>
<tr>
<td>5.</td>
<td>Occupational education function</td>
</tr>
<tr>
<td>6.</td>
<td>Open door policy principle</td>
</tr>
<tr>
<td>7.</td>
<td>Student developmental education function</td>
</tr>
<tr>
<td>8.</td>
<td>Transfer education function</td>
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Appendix D

Education Progress in the United Arab Emirates
<table>
<thead>
<tr>
<th>Academic Year</th>
<th>Students</th>
<th>Classrooms</th>
<th>Teachers and Administrators</th>
<th>Schools</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M  F  Total</td>
<td>H  F  Coed Total</td>
<td>M  F  Total</td>
<td>M  F  Coed Total</td>
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<tr>
<td>53-54</td>
<td>230  -  230</td>
<td>6  -  6</td>
<td>6  -  6</td>
<td>1  -  1</td>
</tr>
<tr>
<td>54-55</td>
<td>270  -  270</td>
<td>8  -  8</td>
<td>7  -  7</td>
<td>1  -  1</td>
</tr>
<tr>
<td>55-56</td>
<td>440  30  470</td>
<td>11  1  12</td>
<td>11  1  12</td>
<td>2  1  3</td>
</tr>
<tr>
<td>56-57</td>
<td>580  66  646</td>
<td>18  4  22</td>
<td>17  1  18</td>
<td>2  1  3</td>
</tr>
<tr>
<td>57-58</td>
<td>639  119  758</td>
<td>15  5  20</td>
<td>23  2  25</td>
<td>5  1  6</td>
</tr>
<tr>
<td>58-59</td>
<td>1,954  381  2,335</td>
<td>25  8  33</td>
<td>47  15  62</td>
<td>5  3  8</td>
</tr>
<tr>
<td>59-60</td>
<td>2,491  620  3,111</td>
<td>52  15  67</td>
<td>84  18  102</td>
<td>8  6  14</td>
</tr>
<tr>
<td>60-61</td>
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<td>78  22  100</td>
<td>107  31  138</td>
<td>16  4  20</td>
</tr>
<tr>
<td>61-62</td>
<td>3,861  1,142  5,003</td>
<td>96  29  125</td>
<td>126  39  165</td>
<td>19  8  27</td>
</tr>
<tr>
<td>62-63</td>
<td>4,201  1,293  5,494</td>
<td>113  42  155</td>
<td>207  63  270</td>
<td>19  10  29</td>
</tr>
<tr>
<td>63-64</td>
<td>4,442  1,770  6,212</td>
<td>123  58  181</td>
<td>208  76  284</td>
<td>20  12  32</td>
</tr>
<tr>
<td>64-65</td>
<td>5,244  2,198  7,442</td>
<td>147  69  216</td>
<td>245  85  330</td>
<td>23  13  36</td>
</tr>
<tr>
<td>65-66</td>
<td>6,014  2,823  8,837</td>
<td>171  81  252</td>
<td>268  114  382</td>
<td>25  14  39</td>
</tr>
<tr>
<td>66-67</td>
<td>6,641  4,205  10,846</td>
<td>189  94  283</td>
<td>290  136  426</td>
<td>24  14  38</td>
</tr>
<tr>
<td>67-68</td>
<td>8,253  4,519  12,772</td>
<td>213  117  330</td>
<td>317  172  489</td>
<td>26  18  44</td>
</tr>
<tr>
<td>Academic Year</td>
<td>Students</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---------------</td>
<td>----------</td>
<td>-------</td>
<td>-------</td>
<td>-------</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>F</td>
<td>Total</td>
<td></td>
</tr>
<tr>
<td>68-69</td>
<td>11,321</td>
<td>6,544</td>
<td>17,865</td>
<td></td>
</tr>
<tr>
<td>69-70</td>
<td>13,761</td>
<td>8,564</td>
<td>22,325</td>
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</tr>
<tr>
<td>70-71</td>
<td>16,850</td>
<td>10,895</td>
<td>27,745</td>
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</tr>
<tr>
<td>71-72</td>
<td>21,770</td>
<td>11,092</td>
<td>32,862</td>
<td></td>
</tr>
<tr>
<td>72-73</td>
<td>24,508</td>
<td>15,685</td>
<td>40,193</td>
<td></td>
</tr>
<tr>
<td>73-74</td>
<td>26,154</td>
<td>18,118</td>
<td>44,272</td>
<td></td>
</tr>
<tr>
<td>74-75</td>
<td>30,264</td>
<td>22,057</td>
<td>52,321</td>
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</tr>
<tr>
<td>75-76</td>
<td>34,872</td>
<td>27,021</td>
<td>61,893</td>
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<tr>
<td>76-77</td>
<td>39,300</td>
<td>32,014</td>
<td>71,314</td>
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</tr>
<tr>
<td>77-78</td>
<td>43,085</td>
<td>35,896</td>
<td>78,981</td>
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</tr>
<tr>
<td>78-79</td>
<td>46,536</td>
<td>39,512</td>
<td>86,048</td>
<td></td>
</tr>
<tr>
<td>79-80</td>
<td>51,631</td>
<td>44,646</td>
<td>96,077</td>
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Table B

U.A.E. Public Education in 1979-80

<table>
<thead>
<tr>
<th>Classification</th>
<th>Sex</th>
<th>Students</th>
<th>% of 124,019 Students</th>
<th>Represented</th>
<th>Teachers</th>
<th>School Admin.</th>
<th>Total of Teachers and Admin.</th>
<th>Classrooms</th>
<th>Schools</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kindergarten</td>
<td>M</td>
<td>2,220</td>
<td>-</td>
<td>3.39%</td>
<td>231</td>
<td>52</td>
<td>283</td>
<td>164</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>F</td>
<td>1,979</td>
<td>231</td>
<td>52</td>
<td>283</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Coed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>164</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>4,199</td>
<td></td>
<td>3.39%</td>
<td>231</td>
<td>52</td>
<td>283</td>
<td>164</td>
<td>16</td>
</tr>
<tr>
<td>Elementary</td>
<td>M</td>
<td>34,896</td>
<td></td>
<td>53.89%</td>
<td>3,983</td>
<td>966</td>
<td>4,949</td>
<td>2,318</td>
<td>204</td>
</tr>
<tr>
<td></td>
<td>F</td>
<td>31,937</td>
<td>2,126</td>
<td>520</td>
<td>2,646</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Coed</td>
<td></td>
<td></td>
<td></td>
<td>116</td>
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<td></td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>66,833</td>
<td></td>
<td>53.89%</td>
<td>3,983</td>
<td>966</td>
<td>4,949</td>
<td>2,318</td>
<td>204</td>
</tr>
<tr>
<td>Preparatory and Secondary</td>
<td>M</td>
<td>12,512</td>
<td></td>
<td>18.58%</td>
<td>1,890</td>
<td></td>
<td>2,339</td>
<td>897</td>
<td>28</td>
</tr>
<tr>
<td></td>
<td>F</td>
<td>10,530</td>
<td></td>
<td>1,027</td>
<td>217</td>
<td></td>
<td>1,244</td>
<td>491</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>Coed</td>
<td></td>
<td></td>
<td></td>
<td>863</td>
<td>232</td>
<td>1,095</td>
<td>398</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>23,042</td>
<td></td>
<td>18.58%</td>
<td>1,890</td>
<td></td>
<td>2,339</td>
<td>897</td>
<td>28</td>
</tr>
<tr>
<td>Islamic Theology Schools</td>
<td>M</td>
<td>1,611(^a)</td>
<td>1.30%</td>
<td>128</td>
<td>32</td>
<td></td>
<td>160</td>
<td>60</td>
<td>4</td>
</tr>
</tbody>
</table>

\(^a\) Source: Table B.
Table B—Continued

<table>
<thead>
<tr>
<th>Classification</th>
<th>Sex</th>
<th>Students</th>
<th>% of 124,019 Students</th>
<th>Teachers</th>
<th>School Admin.</th>
<th>Total of Teachers and Admin.</th>
<th>Classrooms</th>
<th>Schools</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vocational Schools</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Industrial</td>
<td>M</td>
<td>360</td>
<td></td>
<td>54</td>
<td>12</td>
<td>66</td>
<td>16</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>F</td>
<td>-</td>
<td></td>
<td>1</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Business</td>
<td>M</td>
<td>19</td>
<td></td>
<td>7</td>
<td>1</td>
<td>8</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Agriculture</td>
<td>M</td>
<td>13</td>
<td></td>
<td>7</td>
<td>1</td>
<td>8</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
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<td>392</td>
<td>0.31%</td>
<td>69</td>
<td>14</td>
<td>83</td>
<td>21</td>
<td>4</td>
</tr>
<tr>
<td>Schools of Other</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ministries</td>
<td>M</td>
<td>2,068</td>
<td>1.67%</td>
<td>221(^b)</td>
<td>102(^b)</td>
<td>323(^b)</td>
<td>115</td>
<td>9</td>
</tr>
<tr>
<td>Grand Total</td>
<td></td>
<td>98,145</td>
<td>79.14%</td>
<td>6,301</td>
<td>1,513</td>
<td>7,814</td>
<td>3,575</td>
<td>265</td>
</tr>
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</table>

Note. From Statistical Report No. 47, 1979, pp. 8, 10, 18-20, 23, 25, 61, and from Statistical Report No. 50, 1979, pp. 6-9, 13, 15, 19, 21, 23, 45.

\(^a\)The four schools of Islamic theology consist of 894 boys and 24 classrooms at the elementary level, 508 boys and 21 classrooms at the preparatory level, and 209 boys and 15 classrooms at the secondary level; thus bringing the total to 1,611 students and 60 classrooms.

\(^b\)These figures are not included in the Grand Total.
### Table C
Comparison of Public and Private Education of the U.A.E. in 1979-80

<table>
<thead>
<tr>
<th>Classification</th>
<th>Sex</th>
<th>Students</th>
<th>Teachers</th>
<th>School Admin.</th>
<th>Total of Teachers and Admin.</th>
<th>Classrooms</th>
<th>Schools</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ministry of Education Schools</td>
<td>M</td>
<td>51,631</td>
<td>3,080</td>
<td>709</td>
<td>3,789</td>
<td>1,718</td>
<td>118</td>
</tr>
<tr>
<td></td>
<td>F</td>
<td>44,446</td>
<td>3,221</td>
<td>804</td>
<td>4,025</td>
<td>1,454</td>
<td>98</td>
</tr>
<tr>
<td></td>
<td>Coed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>388</td>
<td>40</td>
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<tr>
<td>Total</td>
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<td>6,301</td>
<td>1,513</td>
<td>7,814</td>
<td>3,560</td>
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<td>F</td>
<td>11,977</td>
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<td></td>
<td>1,186</td>
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<td></td>
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<td>Coed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>949</td>
<td>57</td>
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<tr>
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<td></td>
<td></td>
<td>1,474</td>
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<td>57</td>
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<tr>
<td>Schools of Other Ministries</td>
<td>M</td>
<td>2,068</td>
<td>221</td>
<td>102</td>
<td>323</td>
<td>115</td>
<td>9</td>
</tr>
<tr>
<td>Grand Total</td>
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<td></td>
<td></td>
<td>4,400</td>
<td>1,833</td>
<td>127</td>
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<td>F</td>
<td>56,423</td>
<td></td>
<td></td>
<td>5,211</td>
<td>1,454</td>
<td>98</td>
</tr>
<tr>
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<td>Coed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1,337</td>
<td>97</td>
</tr>
<tr>
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<td></td>
<td></td>
<td>9,611</td>
<td>4,624</td>
<td>322</td>
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</table>

<table>
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<th>Year</th>
<th>Students M</th>
<th>Students F</th>
<th>Students Total</th>
<th>Centers M</th>
<th>Centers F</th>
<th>Centers Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>72-73</td>
<td>3,446</td>
<td>1,466</td>
<td>4,912</td>
<td>36</td>
<td>18</td>
<td>54</td>
</tr>
<tr>
<td>73-74</td>
<td>6,208</td>
<td>2,455</td>
<td>8,663</td>
<td>68</td>
<td>23</td>
<td>91</td>
</tr>
<tr>
<td>74-75</td>
<td>7,751</td>
<td>3,266</td>
<td>11,017</td>
<td>71</td>
<td>27</td>
<td>98</td>
</tr>
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<td>8,421</td>
<td>2,746</td>
<td>11,167</td>
<td>74</td>
<td>29</td>
<td>103</td>
</tr>
<tr>
<td>76-77</td>
<td>6,124</td>
<td>1,804</td>
<td>7,928</td>
<td>69</td>
<td>27</td>
<td>96</td>
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<td>6,703</td>
<td>2,074</td>
<td>8,777</td>
<td>77</td>
<td>25</td>
<td>102</td>
</tr>
<tr>
<td>78-79</td>
<td>7,637</td>
<td>2,592</td>
<td>10,229</td>
<td>63</td>
<td>26</td>
<td>89</td>
</tr>
<tr>
<td>79-80</td>
<td>10,104</td>
<td>3,985</td>
<td>14,089</td>
<td>77</td>
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<td>112</td>
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</table>

Table E

Students in U.A.E. Private and Public Schools in 1979-80

<table>
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<tr>
<th>Classification</th>
<th>M</th>
<th>F</th>
<th>Total</th>
</tr>
</thead>
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<tr>
<td>Kindergartens</td>
<td>7,195</td>
<td>6,128</td>
<td>13,323</td>
</tr>
<tr>
<td>Elementary</td>
<td>43,517</td>
<td>38,264</td>
<td>81,781</td>
</tr>
<tr>
<td>Preparatory</td>
<td>10,933</td>
<td>8,523</td>
<td>19,456</td>
</tr>
<tr>
<td>Secondary</td>
<td>3,948</td>
<td>3,508</td>
<td>7,456</td>
</tr>
<tr>
<td>Islamic Theology</td>
<td>1,611</td>
<td>-</td>
<td>1,611</td>
</tr>
<tr>
<td>Industrial</td>
<td>360</td>
<td>-</td>
<td>360</td>
</tr>
<tr>
<td>Agricultural</td>
<td>13</td>
<td>-</td>
<td>13</td>
</tr>
<tr>
<td>Business</td>
<td>19</td>
<td>-</td>
<td>19</td>
</tr>
<tr>
<td>Grand Total</td>
<td>67,596</td>
<td>56,423</td>
<td>124,019</td>
</tr>
</tbody>
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Johnson, B. L. Is the junior college idea useful for other countries? Junior College Journal, 1961, 32(1), 3-8.


