

AN EVALUATION OF SELECTED CRITERIA FOR ASSESSING
THE EFFECTIVENESS OF ADULT VOCATIONAL
EDUCATION IN THE OKLAHOMA CITY
PUBLIC SCHOOLS AS PERCEIVED BY
THREE RESPONDENT GROUPS

By

SIZEMORE BOWLAN,

Bachelor of Science
Oklahoma State University
Stillwater, Oklahoma
1941

Master of Science
Oklahoma State University
Stillwater, Oklahoma
1951

Submitted to the Faculty of the Graduate College
of the Oklahoma State University
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Thesis Approved:

Robert C. Price

Thesis Adviser

Wm. W. Strickman

Robert Terry

Robert L. Noble

Richard P. Jones

D. Durham

Dean of the Graduate College

803818

PREFACE

There is evidence that man must continue to learn or he becomes bored with life. In every case the adult learner must have whatever he is learning integrated as much as possible with the whole life. Opportunities should not be limited by age or previous schooling if the student can be aided by further study.

In recent years, there has been an increasing acceptance of adult vocational education; however, little is being done in the manner of systematically evaluating those programs offered to adults in vocational education. The purpose of this study was to assess the importance of selected criteria in determining the effectiveness of an adult vocational program.

It is impossible to acknowledge all those who made this work possible. I would like to take this opportunity to express my appreciation to Dr. Richard Jungers, Dr. Robert Noble, and Dr. Bill Stevenson for serving on my doctoral committee. Also, I wish to extend my most sincere gratitude to Dr. Robert Price, my major adviser, and Dr. Robert Terry, a member of my committee, for their patience and assistance in the preparation of this dissertation and other graduate work.

The writer is indebted to the eight vocational administrators who served as the panel of experts in developing the criteria for this study. I am especially grateful to Wesley Driggs, Director of Adult Education in the Oklahoma City Public Schools, for his assistance in securing information concerning the adult education programs in Oklahoma City.

Finally, I would like to express my deepest appreciation to my wife, Vallie, and to my children, Walter M.D., Mark, Susan, and Rusty, for their patience and understanding during the entire time spent achieving the doctoral degree. Certainly the constant inspiration of my family can never be forgotten.

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CHAPTER I

INTRODUCTION

The Vocational Education Amendment Act of 1968 reaffirms the need established by the Vocational Education Act of 1963 to make vocational education opportunities available to all persons in all communities consistent with their needs.

Vocational educators recognize that there are variable patterns and somewhat diverse structures among educational organizations which seek to provide opportunities for youth and adults to gain preparation opportunities for entrance into an occupation as well as continuing advancement once the individual has been employed. Regardless of the administrative structure, an effective and fully responsible vocational education must operate not only during the day, but during the evening as well, and if needed, on days or evenings when school is not normally in operation. It should be organized to serve those in school, those who have completed or discontinued their formal education and are preparing to enter the labor market, those who have already entered the labor market, but need to up-grade their skills or learn new ones, and those of varying ages with special educational handicaps.

The importance of ancillary skills required of an individual to live personally as a consumer, as a member of a family, or as a citizen must be considered by adult vocational educators although their primary purpose is that of job preparation for the individual. More recently,

Congress has charged vocational educators with the responsibility of implementing a major change in the educational system. This system must be so constructed as to enable youth and adults to achieve occupational competencies and personal satisfaction from integrated educational and work experience programs best fitted to the individual's need, abilities, and interests.

Adult vocational education can be recognized in some respects as being similar to a cafeteria, in that the customer must receive what he wants and in the manner desired or he will not return. He expects to receive training in a skill or knowledge, he feels, which will repay him for monies spent and sacrifices made. Such an adult possesses a freedom of choice and the right of judgment to the extent that no authority can keep him in school if he does not wish to remain. The student invariably comes expecting to receive some type of assistance and in the vocational field it is usually centered in concerns for an opportunity to better himself in terms of employment.

Purpose of the Study

What measurable criteria are appropriate for determining quality and effectiveness of programs of vocational-technical education presently participated in by adults?

In terms of interest, concern, and effort, an area often given low priority by professional educators is that of adult education. In the past, the success of adult vocational programs has largely been measured by the extent of satisfaction experienced and expressed by participants. However, the public, as well as Congress, is increasingly demanding a more realistic evaluation of the entire educational and occupational

spectrum and especially adult vocational-technical education. The author was unable to find any appreciable amount of applicable research that had been conducted concerning the components of a quality adult vocational program. Factors affecting the quality of adult vocational education programs must be identified and evaluated if these programs are to be successful.

Public school adult education programs belong to the community and its citizens should have the privilege and the responsibility of being involved in their formation and evaluation. The purpose of this study was to develop an instrument that could be used in evaluating, updating, and improving the quality of the adult vocational offerings of the Oklahoma City Public Schools.

Nature of the Problem

What criteria are most useful and valid for accurately assessing the effectiveness of presently operating adult vocational education programs? By what standards do the public evaluate the usefulness of adult education efforts? Can professional adult educators, directors, and supervisors assist in making the public more conscious of what constitutes quality education for adults?

The ever expanding needs of our society mandate more extensive and effective education at all levels - from nursery school through adulthood. Recent action, through legislation and other support, would lend evidence to an assumption that the public believes in vocational education as a most acceptable way of educating and training people for work. While for the past fifty years federal, state, and local governments have created and implemented legal means for supporting vocational education,

the past decade has seen this trend increase at an unprecedented rate. Since Sputnik and with the advent of the many federally funded programs, many pressures have been exerted upon those responsible for vocational education.

The 1968 amendments to the Vocational Education Act of 1963 mandated that programs be developed to meet the needs of persons, both in and out of school, who needed occupational preparation, but who were not being served adequately by present ongoing vocational programs. Concurrent with this mandate there continued the obligation of maintaining, expanding, and improving ongoing programs. Through these efforts, many programs offer promise for greatly improving the quality and availability of adult vocational education. Growth experienced by some states in adult enrollments has been offset nationally by decreases in other states, preventing any substantial overall growth. The Annual Vocational and Technical Education Report for 1968 by the U. S. Department of Health, Education, and Welfare (1) showed the enrollment in adult vocational education totaled 2,987,070, an increase of only 46,000 above the 1967 level.

Knowledge of the history and backgrounds of struggles and developments of education in any community is most important in determining the nature and extent of programs and structures needed. The history of adult education, especially adult vocational education, indicates much time and energy has been spent by adult educators to increase enrollment in classes when, perhaps, little consideration was given to implementing and maintaining programs possessing valid, but definite, goals and objectives. Enrollment is often stressed with seemingly little consideration given as to why programs succeed or fail in meeting the needs of the

participants or community.

The historical summary of adult education in the Oklahoma City Public Schools emphasizes the need for determining the programs best suited to the needs of the people in the community as well as a need for determining criteria whereby the effectiveness of these programs can be evaluated. The apparent success of some adult programs further emphasizes the need for a more systematic approach to evaluation of all adult vocational programs.

Adult Vocational Education in the Oklahoma City Public Schools

Introduction

Historically, adult educators in the Oklahoma City Public Schools have been concerned with the quantitative aspects of adult education. The acquisition of knowledge and skills as related to the earning of a living has constituted a major concern for these educators. This almost complete preoccupation with the business of living has long been a trade mark of adult educators in the Oklahoma City Public Schools.

The qualitative "Art of Living" aspect of adult education and a concern for the orientation of man has been, to a considerable extent, avoided by many public school educators. Qualitative education programs in writing, composing, painting, and other areas of so called fine arts have been conducted primarily by Y.W.C.A., Y.M.C.A., churches, and libraries of the community on a limited scale.

Many adult educators regard one dimension or the other as the most important development in adult education. There are adult educators who label education for qualitative living as poetic, impractical, and not

profitable for the average adult. This opinion was shared by many of the educators in the Oklahoma City Public Schools. These areas of adult education are mentioned and explained for insight into the kinds of adult education programs developed and offered through the Oklahoma City Public Schools.

Adult education in the Oklahoma City Public Schools has had a rather quiet life generally offering what possibly would be categorized as classes rather than programs. Adult offerings, prior to 1954, somewhat paralleled that of the struggles of Central High School. Central High School was, until the last few years, a large metropolitan high school in the center of the city with a large number of classes in vocational education.

Records of adult education classes were not kept prior to 1954, however, with the aid of several former teachers of Central High School, a chain of events had been patched together. The adult education movement in the Oklahoma City Public Schools has been divided into three segments: (a) history prior to 1954, (b) adult education 1954 to 1961, and (c) adult education from 1961 to 1971. This traces the growth of adult education in Oklahoma City from a few students enrolled in federal programs to that of an enrollment of over 8,000 adult students enrolled for the 1970-1971 school year.

Adult Education Prior to 1954

It is regrettable that the author was unable to find written records for this period of time, however, information was gathered through the verbalization of teachers in the Oklahoma City School System as well as from former teachers of adult education classes.

In the early forties numerous conditions existed that aided the rise of the first adult classes. From information gathered, it is obvious that classes were developed from people with "people needs", not from a school system attempting to alleviate "community needs." At these times of World War II, there was a great need for skilled workers of all types, consequently, a few adult individuals turned to the school system and the vocational instructors of Central High School for assistance. Information as to the formulation and financing of these programs is somewhat vague, however, most agree that some tuition was charged and instructors' salaries were paid from tuitions collected.

Counselors and vocational teachers at Central High School constantly moved through the supervisory capacity in regard to the organization and operation processes. They often played the role of teacher, counselor or administrator of the evening sessions. Many classes were organized through the friendship of a former student in need of a skill or the upgrading of a skill and his vocational teacher at Central High School.

Adult Education from 1954 to 1961

During the period prior to 1954, a rather unique little school in the Adult Education Department of the Oklahoma City School was implemented. This school was called Adult Day School. The objective of the first classes was to aid the large number of returning veterans who did not possess the requirements to enter college nor the skill to enter the labor market but did possess the motivation to move in this direction. The only courses offered were those academic subjects necessary for high school completion. This school could best be described as a teacher-aided correspondence school. Course outlines were developed and students

worked on these individual outlines in disregard to what other students in the class were doing. Upon completion of 65 hours in attendance, completion of course outline and passing of required tests, the student was given a credit toward graduation.

This type of unique school allowed for flexible instruction for a number of students. This school initiated the precedent of a student's enrolling any time during the year and terminating at any time, enrolling in one subject for six hours per day or for six subjects during the day or any other combination adapted to the student's need. The school was staffed with only two teachers and indications are that it could have grown much larger had the facility in which it was housed been suitable.

During the years prior to 1964, the school was housed in many sites in conjunction with other regular school programs. In 1965, the school was moved to a single center where it developed into an eight teacher program and to the capacity of this site. In the ensuing years, the make-up of the student body changed from veterans to that of pregnant or married girls along with that of older students.

It is reported that in the 1950's the offerings of the Adult Education Division began to follow somewhat that of a comprehensive high school. A supervisor of Adult Education, under the Department of Vocational-Technical Education, was employed. Some typical regulations of the school were: (a) the schedule was to be divided into two semesters, (b) provide for open enrollment with a tuition of \$5 to \$11 per class, (c) classes were to meet two hours per evening and two evenings per week for sixteen weeks, (d) minimum age for enrollment was sixteen years of age, and (e) no grades were to be given, except for credit courses. However, grades of accomplishment were issued to those successfully com-

pleting any course.

The first written annual report was filed during the 1957-58 school year. To facilitate the understanding of structure and change that permeated the years of the late 1950's, the following information was induced from that first annual report. Special attention should be given as to the number of students, type of classes, and the income in regard to amounts and sources. All of these were detailed in the report as follows:

Course offerings included the usual academic classes in English, Math, Science, and History. Other areas covered in the curriculum were vocational, self-improvement, and hobby type classes. Persons taking academic courses were generally working toward completing their high school education. Those taking vocational courses did so to increase their occupational competence. Several special classes were conducted for groups from local industry engaged in specific occupations.

Enrollment by Educational Areas

Academic

Mathematics	331 students
Science	168 students
Social Studies	402 students
Language Arts	577 students

Vocational

Clerical Training	715 students
Sales Training	51 students
Industrial and Service Training	569 students

Self-Improvement

Driver Education, Interior Decoration, Gift Wrapping, and Others	894 students
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Income to operate the Adult Institute came from several sources according to the Annual Report. They included:

Tuition	\$ 44,323.00
Reimbursed Vocational Classes	11,233.91
Veterans Administration	590.29
Board of Education	12,462.01

TOTAL INCOME	\$ 68,609.21
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Operational expenses of the Adult Institute for the same year included:

Teaching Salaries	\$ 52,571.91
Administrative Cost	14,463.44
Supplies	1,573.86-

TOTAL EXPENSE	\$ 68,609.21
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A similar excerpt, as to enrollment, from a recent annual report will be presented later in this chapter.

During this period, most of the adult education offerings in the Oklahoma City Public Schools could only be labeled as classes. However, it was during this period a program emerged that has enjoyed consistent growth and acceptance. The author feels that a study of the growth of the Vocational Practical Nursing program, in contrast to short term classes, emphasizes a need for determining why some programs are apparently more successful than others.

Oklahoma City Vocational School of Practical Nursing

Following World War II it was assumed that nurses that had served in the Armed Forces would return to the hospitals to work as nurses. However, the majority of these women returned home to start families and be out of the employment field for a period of time. About this time, hospitalization insurance came into existence, causing many more people to use the hospitals which in turn increased the need for more nurses.

The experience of the hospitals during the war, that of using lay

women to assist with the nursing, had brought the usefulness of this mature, motivated helper to the attention of the nursing profession. Directors of the nursing service in Oklahoma City, along with the Director of Vocational Education of the Oklahoma City Public Schools and the Oklahoma County Health Council of the local Chamber of Commerce, began looking at the possibilities of training this person in a formal school setting and using their hospitals for clinical practices. Before this dream could become a reality, two things had to be done. The first was to expand the law to include licensure for this trained person; the second, to sell the local public school system on the idea.

A bill was passed and became law on July 1, 1953, effecting a change in the Oklahoma State Nursing Practice Act to include licensure of practical nurses. However, it took the Director of Vocational Education two years, after the law was passed, to convince the Oklahoma City Board of Education that the public school system should assume the responsibility of the educational program which the law required for the training of the vocational nurse.

The Oklahoma City Vocational School of Practical Nursing began in October, 1955, in Culbertson School using the facilities of University Hospital for clinical practice. The hospital also gave financial aid toward paying the teachers' salaries. The established curriculum was consistent with the guideline of the National Association of Practical Nurse Education and those of the U.S. Department of Health, Education, and Welfare. Since earlier training programs in the United States emphasized care of the sick in homes and the immediate need in the Oklahoma City area was in the hospitals, the curriculum was made flexible in order to meet the community need.

Classes were scheduled so students could attend school three days per week with one group of students coming all day Monday, Tuesday, and Wednesday, and the other group attending Wednesday, Thursday, and Friday. This was planned in order to recruit three types of persons: (a) the person who had to partially support herself and/or her family while in school (a number of persons recruited were already nurse aides and employers were happy to retain them on a part time basis), (b) the mother with children and home responsibilities who possibly could only attend three days per week, and (c) the person who has been out of school a number of years and would possibly find it easier to ease back into the student role if classes met only three days per week. The course was designed to be completed in eighteen months with classes beginning each fall.

The program continued to grow with St. Anthony and the Bone and Joint Hospitals participating from time to time. In 1966, a full time five-day week program of one year in length was added to enable the young woman just out of high school to become licensed at an earlier date. The program was moved to Emerson School, near the center of the city, to allow for expansion.

As of this date, 1971, five hospitals (University Medical Center, Presbyterian Hospital, Baptist Memorial Hospital, Mercy Hospital, and South Community Hospital) are cooperating with and furnishing financial aid to this program. These hospitals provide approximately two-fifths of the finances of the program; the Health Occupation Division to the Oklahoma Vocational and Technical Education Department, about two-fifths with the remainder coming from students and other sources. The Health Occupation Division also provides supervision, assistance, and continuing

evaluation of the program. To date, this program has graduated 746 practical nurse practitioners with 125 students enrolled at the present time. The attrition rate has varied between fifteen and twenty percent, somewhat below the national average. A great majority of the graduates are employed immediately upon graduation, some do not wish to accept immediate employment.

Adult Education from 1961 to 1971

Adult Education in Oklahoma City schools from 1961 to 1971 could well be characterized by the emergence of new programs sponsored by federal support. Two major developments, high level of unemployment during the latter part of the 1950's and into the 1960's and the Civil Rights movement, combined to generate federal support for the training and rehabilitation of the unemployed and disadvantaged. Prior to this time, adult vocational educators had been content to pursue excellence in preparing competent apprentice or capable prospective students to become capable skilled workers and up-grading ambitious workers for better positions.

Serving the undereducated, the undermature, and the victims of discrimination demanded a reorientation of adult vocational offerings. New functions thrust upon adult vocational education in the Oklahoma City schools included: (a) an outreach to seek the discouraged and undermotivated, (b) adult basic education to remedy the academic deficiencies of those left behind by raising educational attainment, (c) pre-vocational orientation to expose those unprepared to profit from advanced training, (e) training allowance to provide support and incentive for those undergoing training, and (f) work experience for those unaccus-

tomed to the disciplines of work.

A new program, Manpower Development Training, was implemented in the Adult Vocational Education program in 1963. This program was conducted for the benefit of trainees under 21 years of age, all of whom were school dropouts and disadvantaged. No attempt will be made to point out all the statistical facts of this program; however, some figures from the 1968-69 Annual Report emphasizes the recovery of human resources. During this school year, it took 141 trainees to complete 83, out of which 82 received a high school diploma. All 83 of these students developed a vocational skill which placed him in a competitive position on the labor market.

Also, readily recognized on the asset side of the ledger, this project helped restore self-motivation and dignity in persons that had been on welfare and in prison. Among these benefitting from this program, ten percent of the men and 22 percent of the women had been on welfare and 32 percent of the men had prison records. Programs were conducted in elementary school buildings, high school buildings, and many rented industrial buildings. During the years from 1963 to 1969, approximately 2,000 trainees received a marketable skill through the Manpower Training Program.

This acceleration in human life of the 1960's brought new implications for the total sweep of our educational spectrum, but for adult education it brought a change that was singular and severe. It became obvious in the sixties that a program for adult education should be sufficiently broad and comprehensive to serve the needs of the total adult population.

Adult education in the Oklahoma City schools, supplemented by fed-

eral funds, attempted to meet this imposed crisis through the implementation of two distinct programs. These programs were the organization of an Area Vocational-Technical School and an increased emphasis on the evening school program aided by a new program providing for the issuance of a high school diploma through the adult evening school. These programs were great determinants in the increased enrollment of the adult programs in Oklahoma City.

The evening school, during the sixties, grew from 2,970 students in 1957-58 to an enrollment of 7,955 students in 1969-70. The number of evening centers enlarged from two high school level centers to five centers and from zero to twenty elementary centers. The following enrollment figures were extracted from the 1969-70 Annual Adult Education Report.

Enrollment by Educational Areas

Academic

Language Arts	1675 students
Mathematics	696 students
Science	437 students
Social Studies	893 students

Vocational

Clerical Training	2228 students
Trade Classes	1921 students

Self-Improvement

Driver Education, Interior Decoration, Floral Arrangement, and Others	205 students
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TOTAL ENROLLMENT	7955 students
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Oklahoma City schools' growth in adult education and the dedication of its adult educators were the paramount forces in the development of a high school diploma for adults. The guidelines for the issuance of an

adult high school diploma are significant because of their implication for change. Some of the guidelines were: (a) Eligibility - any adult or out-of-school youth 21 years of age or over who is not a high school graduate; (b) credits may be granted for educational training and experience with the military services; (c) credits may be granted for work experience provided it can be related to industrial-vocational-technical courses approved by the Oklahoma State Department of Education; (c) vocational training obtained from sources other than a high school course of study may be evaluated for elective credits upon the judgment of the Adult Education Center Counselor and the local school administrator.

The Area Vocational-Technical School, implemented in the sixties, was the first educational facility constructed for the declared use of both secondary education and adult education. This dedication, for the first time, directly affected the type and construction of vocational and technical classes. Classes were organized in such a flow that one-semester classes built upon the construction of the semester preceeding, giving adult education, for the first time, a general enrollment into the more extensive area of program development rather than a mere enrollment of singular classes. The area school movement brought about the designation of a full time assistant director dedicated to the development and supervision of adult vocational and technical classes. The rapid increase in adult education enrollment emphasizes the need for an instrument to systematically determine the effectiveness of these programs.

Assumptions

It was assumed that the panel, as brought together via the Delphi

technique, were unbiased and the consensus of their opinions were similar to those that would have been made by any comparable group of adult vocational administrators.

It was assumed that the responses, recorded in this study, made by adult students enrolled in vocational programs at the area vocational-technical school and those responses made by vocational teachers employed by the Oklahoma City School System for the 1970-71 school year would closely correlate with responses made by corresponding groups of people made at a different time.

It was assumed that the responses of those students enrolled in the Practical Nursing Program during the 1970-71 school term are typical of those enrolled each year.

It was assumed that all responses were voluntarily made by the respondents and that each respondent was capable of making, and did make, an honest and unbiased response to the questionnaire.

Definition of Terms

Panel of Experts - the eight experienced adult vocational administrators chosen by the author and Dr. Robert Price that were used as panelists, via the Delphi technique, in developing the instrument used in the second part of this study.

Practical Nurse Students - those students enrolled in the Vocational School of Practical Nursing offered by the Oklahoma City School System during the 1970-71 school year.

Adult Area School Enrollees - those adult students enrolled in the adult evening school program at the Oklahoma City Area Vocational-Technical School during the second semester of the 1970-71 school year.

Experienced Vocational Teachers - those vocational teachers employed by the Oklahoma City Public School System for the 1970-71 school year that have taught more than 72 hours of adult vocational classes.

Inexperienced Vocational Teachers - those vocational teachers employed by the Oklahoma City Public School System for the 1970-71 school year that have never taught any adult vocational classes.

Adult Education Courses - an educational activity that takes place in an organized context for individuals who have passed the age of compulsory school attendance laws.

Scope and Limitation

This study involved two somewhat separate studies coordinated into one. These studies included (a) the development of criteria, by a panel of experts, for determining effectiveness of adult vocational-technical programs, and (b) the rating of these criteria by five different adult groups.

The panel of experts, used in developing the criteria for determining the effectiveness of adult vocational education programs, were brought together via the Delphi technique.

Questionnaires and interviews were restricted, except the panelists, to those adults enrolled in adult vocational classes sponsored by the Oklahoma City School System the second semester of the 1970-71 school year, plus those vocational teachers employed by the Oklahoma City Public School System during the same period of time.

The data, as presented in Chapter IV, and the results and conclusions of this study, as presented in Chapter V, were limited by and subjected to these limitations.

CHAPTER II

REVIEW OF LITERATURE

Introduction

In the study and review of literature of adult education, and especially of adult vocational education, the literature appeared to be conveniently divided into three distinct areas. These areas include, (a) the need for adult education, (b) what is being done in adult education, and (c) the need for evaluation and change of these offerings and programs. The author attempted to arrange the readings into these categories and lettered them thusly.

The bibliography was arranged in alphabetical order according to author's name. Each separate bibliographic reference was then numbered consecutively and this number was used in the text whenever this reference is encountered. When the author's name is a part of the sentence in the text, i. e. "This system is explained by Albaugh (2) on page 23." the number of the reference is placed in parentheses after the author's name. If the author's name is not in the sentence, the reference number is given in parentheses at the end of the sentence or quote, e. g. (2).

The Need for Adult Education

There is little or no dissent among the nation's educational leaders concerning the need for adult education. Virtually, all are agreed that the need for viable programs is a necessity. But an examination of con-

temporary literature on the subject reveals significant differences regarding the type of adult education needed and how it can best be achieved. The various approaches vary from plans for full utilization of existing programs to proposals for creating an adult education program with status equivalent to the existing major levels of the public school system. Other educators, primarily those specializing in the field of adult occupational education, have abandoned supplemental education concepts in a period of accelerating technological change and are now focusing their efforts on adult education for the unemployed and unemployable in terms of national economic necessity. The demands of society, they insist, should determine the purposes of education rather than a myriad of individual interests.

Some spokesmen are defining the need for adult education as a function of program participation. They point to the results of a national survey conducted by the National Opinions Research Center in 1961-62 which revealed that only one adult out of five participated in some form of educative activity during the course of a single year. Why, they ask, are 80 percent of our adult population failing to participate in some type of supplementary education? In his study on adult education, Schroeder (27) confronts this problem in the following manner:

Assuming the desirability of and even necessity for continuous learning on the part of most all United States citizens in this twentieth century, the question becomes - why do as many as four out of five fail to engage themselves in a learning activity? (1) Somewhat of an answer might be accessibility, (2) Negative attitude of adults toward the traditional school they may have left or dropped out of, or (3) Lack of the development of a concept of appreciation for life-long learning. I would suggest that every major college or school of education in each of our states be encouraged to introduce an adult education orientation course which all education majors would be required to complete, (4) Adults

tend to define adult education in a manner consistent with their exposure to it, limited though it may be. Thus, some may define adult vocational education as synonymous with literacy education offered for adults by some of our public schools.

In his book on adult education, Homer Kempfer (16) indicates that part of the problem of attracting adults to continuing education programs relates to the approaches and methods of teaching adults in relation to what they expect and demand. He asserts that "Adults demand education with intrinsic merit, education that serves their recognized needs. When an activity helps them solve their problems and make the behavior changes they want and need to make, they will participate in great numbers. Only when adults are forced by social or economic pressure to acquire a diploma will they pursue classroom activities that are unrelated to their real concerns." Kempfer believes that many of our methods and approaches are weak because they have been copied from the traditional institutional walls and provide services in many different locations.

Since public school adult education is a voluntary involvement by adults procuring additional education for themselves, an understanding of the various factors which either discourage or encourage their enrollment as well as the factors which underlie their continued attendance is absolutely essential for any administrator, teacher, or supportive person who wishes to be consistently effective. Since enrollees have elected to invest a portion of their spare time in education rather than in dozens of other activities, their reasons for doing so must be immediately discovered and at least partially gratified if they are to gain the initial satisfaction necessary to ensure continued participation in the program.

Briggs and Justman (7) have also written in support of this concept. They cite various studies which indicate that if adult programs are to be successful, they cannot be "more of the same." They are con-

vinced that "the first duty of adult education is to help adults learn to do better the desirable things they will do anyway."

But Knowles (17) takes a somewhat contradictory position. He observes that in most countries in which adult education has developed in recognizable form the programs have tended to take on a rather easily definable character, but in the United States the national adult educational program has proliferated almost haphazardly in response to a multitude of individual needs and interests. Indeed, the notion that the curriculum of adult education should be determined by the needs and interests of the students has gained currency in the literature of adult education from as early as 1925.

Liveright (21) is even more critical and takes the view that haphazard, uncoordinated response to myriad individual interests has resulted in the "fragmented nature of adult education today." And he finds still more disconcerting the fact that "no agency or institution appears to be assuming leadership in trying to develop a sense of direction in the field or in working toward planning and moving toward a well-rounded and comprehensive program of continuing education."

There is an increasing acceptance among educational leaders of the need for continuous vocational education from childhood throughout life. This is reflected in a report prepared by the National Commission on Technology, Automation and Economic Progress (29), which states:

Nothing short of education throughout the entire life-span is sufficient to provide individual fulfillment and mastery of the environment. Because culture changes which once encompassed centuries occur now in a decade, man's ability to manage change requires continuing education throughout life. The general educational level of the public governs the pace with which new knowledge can be absorbed, adjustments made to new developments in science and technology, and solutions reached to concomitant social, politi-

cal, and economic problems. There is no such thing as terminal education. Lifelong learning is a universal necessity since we are living in a learning society.

Support for the Commission's position can be found in the work of Bush and Goenner (11), who believe that education required for occupation competence involves much more than training in specific vocational skills. They maintain that it begins in early childhood and continues throughout active occupational life. Opportunities should not be limited by age or previous schooling if the student can be substantially aided in his educational development by further school experience. They also observed that the trend in today's society is to keep youth in school as long as possible, at a time when occupations require more complex skills and much more sophisticated technical and scientific knowledge than ever before. Thus, it has become impractical, if not impossible, for today's youth to properly prepare themselves for a productive life and for satisfactory wage-earning employment unless secondary schools offer some assistance and unless there is opportunity for post high school and adult vocational-technical education to assist in up-grading worker skills or helping displaced workers to learn new skills.

Bush (10) perhaps is the strongest contemporary advocate of education as a continuous process. His position is stated unequivocally in the following paragraph:

Man must learn in order to live. It is difficult to imagine a human having any experience or performing any kind of work without learning. There is evidence that man must continue to learn on a regular basis or he becomes frustrated and bored with life. It seems inevitable that every job will in time become routine and boring for the average worker if some opportunity to learn is not provided. In fact, learning cannot be avoided - it cannot be turned off - it is a life-time process.

That the purposes of education should be determined by the demands of society is the criterion attracting increasing support from contemporary educational leaders. Both Bush and Goenner (11), who have dealt knowledgeably with the problem of the unemployable and the unemployed, advance this thesis as the litmus test of a successful adult education program. Bush (10) has gone so far as to determine the value of occupational adult education in terms of human dignity:

A job has worth in terms of society's need for its product. When we examine what provides dignity and worth in a job, we find the quality of performance is considered valuable to the employer and has elements of intrinsic value to the employee. It is the quality of performance that determines the basis of dignity.

Delineating the need for adult education from basic occupational problems, Bush (10) concludes that:

1. Unemployment generally results from a lack of proper attitudes or saleable job entry skills.
2. Underemployment is found when an employee is unable to continue to be promoted and is forced to remain at a job level below his aspirations.
3. Overemployment results from an education deficit; that is, the demands of the job are greater than the education or experience of the employee.

Kempfer (16) also stresses the concept of adult education as a process of lifetime learning. His work strongly reflects a recognition of the educational needs of adults, which he says cannot be identified once for all time, since some needs may remain stable while others change according to economic conditions, world tensions and other domestic situations. Kempfer also concludes that adult education ought to have status equivalent to other major levels of the school system, and should be closely articulated with them.

Another group of educators are concerned that adult education pro-

grams have been too narrowly designed, and focus their attention on the whole individual in a constantly changing atmosphere of creative learning. Bergevin (5) believes that

If we see our society as an evolving, developmental order attempting to offer the individuals who compose it the freedom necessary to grow and express themselves as creative beings, then it follows that we have to have the knowledge needed to function in such a society. We must learn to play our important roles as free and responsible citizens. Since we are involved in this continuing, evolving process, our learning needs as adults are continuous and changing.

Bergevin broadens the focus of adult education by conceiving of it as a function of the total community. He believes that one institution after another either willingly or unknowingly contributes to immaturity by conducting narrowly designed programs of learning, by making decisions instead of teaching how to make them, by using fear as a learning factor; all approaches that foster the process of fragmentation. On the other hand, a concept of adult education concerned with the individual's life in the community will promote the development of the whole person, the mature citizen (5):

If we are to grow up, the education of adults must be broad and diverse; every public or private institution in which an adult is involved must carry its share of this task. In every case the adult learner must have whatever he is learning integrated as much as possible with the whole of life. Adult education cannot be said to have fulfilled its mission unless it deals with the whole person.

Bergevin's suggestions for developing and maintaining an effective adult education program that will help learners relate better to one another and to the world around them show a perceptive awareness of the idiosyncrasies of the older student (5): "Adult learners are often sensitive about their role as learners. They don't want to be treated like

children or use resources that smack of childhood learning. Unless we recognize this situation, we can easily alienate the adult learner and negate our opportunity to help him learn more about himself."

Together with Morris and Smith, Bergevin (6) provides an outline of factors to consider when selecting procedures to follow in adult education programs. These factors include: (1) the learner or participant, his needs and interests; "What kind of a person am I working with?", (2) physical environment, (3) leadership available, (4) the topic, goals, and resources, (5) the characteristics of the procedure to be used, (6) the institution - its expectations and concerns.

Thatcher (30) is also concerned with the problem of alienation of the adult learner. He notes that adult students, unlike many children, come to the program with a definite purpose. The educator must use every means to arouse their interest, to move them to action, and to understand why - or why not - continuing education has meaning to them. He also believes that adult education services today cannot remain too fixed, and that adult educators are not becoming aware that routines or policies and practices borrowed from other fields of education are frequently not effective nor desirable for use with adult groups.

The work of Prosser (25) complements that of Thatcher and Bergevin. His guidelines for designing an adult education program are carefully geared to the needs and motivation of the adult learner, as illustrated in the following examples:

1. You must start with the demands of the occupation or line of employment and not with the field of knowledge, or subject to be taught.
2. Get your information from experienced men in the occupation or line of employment, not from theorists.
3. Work with these experienced men, and help them

to give you what you need.

4. Organize teaching content in skill and knowledge into unit courses in sequential order.

5. Be sure lessons are organized to cover all these teaching points.

6. Modify as needed.

7. The best time to teach anything is when the learner needs it for a purpose.

8. Adults desire teachers to teach in simple language they can understand. It is what he says that is important to them, not the perfection of the way he says it.

Shaw (28) is also concerned with adult education programs that are designed for the whole person. He believes experience through the years has made it increasingly clear that effective adult education programs must deal with real community problems and concerns because it is in the community that one can see firsthand the characteristics and needs of people and of the society. Also, it is in relation to or in connection with individual and community problems that educational needs exist, and the adult educator must first know what these problems and needs are before he can plan intelligently educational programs to deal effectively with them.

Shaw's work probes the problems arising from such changes as the shorter work week and the extension of automation which promise many more hours available for pursuits other than work. And he does not overlook the impact of the trend toward even greater specialization of occupational skills. Thus, he foresees that learning-for-work and learning-for-pleasure will together come to dominate the adult education scene to an even greater extent than they do today.

In reviewing contemporary literature concerned with the need for

adult education a variety of ideas and programmatic concepts can be found. Despite the differences in approach, all reputable educational authorities find a basic area of agreement in the need for continuing supplementary adult education. All could perhaps agree with Lyman Bryson (9), who expresses that need most cogently in his book Adult Education:

But no society, no matter how perfect, will ever need adult education less. If efforts for social betterment succeed, adult education will be not only as much needed in the future as it is now, it will also be much sought after. The characteristics of a better society will be the more generous provision of opportunities for self-improvement by a more generally awakened people.

What is Being Done in Adult Education

A review of contemporary literature provides a picture of the status of today's adult education programs. It shows how far we have come on the road toward the goal of well-rounded adult programs of maximum participation and achievement. It contrasts what is being done today with the hopes for the accomplishments of tomorrow.

Bergevin's (5) work exudes a note of pessimism about the condition of adult education. He believes that the change in how adults are taught has been negligible. Adult education, he insists, must be based on a philosophy of change. It must take into consideration the nature of the adult as a learner who can be stimulated to inquire, to try to discover and to be creative. He also points out that adult learning programs are remiss in not taking into consideration the fact that most adults are not scholars and have little interest in becoming scholars. He proposes that adult education be treated as any kind of learning that alters the way a person thinks about something, changes the way he behaves or adds to his supply of information and knowledge. He finds the

inflexible systems in use today devoid of such concepts, and calls for learning programs which will promote a mature rationality in our lives and, through us, in our institutions. He reserves his strongest criticism for the adult educators who waste time and energy planning and conducting programs without considering the nature of the learner. He emphasizes that getting an adult who has been trained to view learning as a fragmented series of experiences that start and end between the covers of a book to understand the need for life-long learning is the most challenging problem of adult education. Thus, the adult educator must be acquainted with the learner and the learning equipment - the subjects, procedures and physical needs. He must then bring the learner into a meaningful relationship with what is to be learned and allow learning and the changes of attitudes and behaviors that learning can bring about to take place. And we can obtain more productive results in this constant renewing process if some of the old and proven values are integrated with the new. These procedures will help teach the learner how to live a full productive life in which the ability to make a living and stay healthy will provide a counterpoint to the equally important knowledge of what to do culturally and spiritually with his life and talents.

In his study of administrative systems, Shaw (28) analyzes today's adult education programs and is less than satisfied with what he finds:

Adult education today is a natural outgrowth from what adult education was yesterday. It is a confusing mixture of both raw and well-worn programs, of separate and overlapping programs, of programs that work together and programs that work at cross-purposes. It is a mixture of adults who are scarcely students and of students who are scarcely adults. It is a mixture of education for jobs that are disappearing and for jobs yet to appear. This creates a swirling maelstrom through which the adult educator

picks his way with difficulty.

In his 1963 guide for school administrators, Mann (22) surveyed adult education as a function of the public school system. Avoiding criticism, he calls it "a comparatively recent phenomenon," an important part of the public school system; "it is a different type of education with characteristics that call for a different curriculum, different course content, different methods and materials, different counseling service, different facilities, and for the most part, a different teaching staff."

On the other hand, Liveright (21) in his recent study finds adult education a viable and vastly improved system:

There has been a marked increase in the number of non-credit courses offered by colleges, public schools and through private industry during the past decade. The number and kinds of non-credit courses have increased greatly, and quality is much improved. Enrollments are rising rapidly. There are many more liberal education courses, and the proportion of these courses has grown when measured against vocational, technical, and professional courses. This is true at both the higher education and public school levels.

Knowles (17) seems guardedly optimistic about what is being done in today's adult education. He observes that "the institutional sponsorship of adult education in this country has expanded continuously and rapidly, although unevenly, and the end of this process is not yet in sight." Plotting the advances made since the beginning of the twentieth century, Knowles extrapolates the growth patterns through the 1970's, and predicts these future developments for adult education:

1. The size of the student body of adult education will continue to expand.
2. The educational level of the student body of adult education will continue to rise.

3. The resources and facilities for the education of adults will gradually expand.

4. The curriculum and methodology of adult education will become increasingly differentiated from those designed for children and youth.

5. The role of the adult educator will become increasingly differentiated from other roles and training for this role will be increasingly specialized.

The permanency of adult vocational education is assured according to Charles A. Prosser (25) in his book on evening schools. He concludes that the adult evening school is permanent and not, as some believe, a passing phase of vocational and technical education. "I believe that in any country-wide program of systematic adult education for workers in productive employment the bulk of the enrollment in evening schools will consist of those who want training which will assist them in breadwinning."

Prosser also feels these four conditions have contributed to success in these programs: (1) customers are offered what they want, (2) success promotes an increased demand for what it offers, (3) a satisfactory service is rendered to customers, (4) services performed at the least cost in time, effort, and money consistent with the successful operation of the business.

Some suggested success factors according to Prosser are: (1) efficient organization, (2) helpful working relations with other agencies, (3) suitable and adequate buildings, (4) functioning subject matter, (5) effective organization of functioning subject matter into courses, (6) adequate instructional materials and devices, (7) competent instructors, (8) effective supervision, (9) successful method of getting and holding students, (10) sound method of instruction.

The contemporary literature on adult education reveals a wide range

of conflicting opinions on the status of adult educational programs. Still, even the harshest critics have formed favorable opinions of some aspects of today's programs. And perhaps most would find areas of agreement in Ballentine's (2) glowing appraisal:

In the adult education classes of America are found the ingredients that have made this country great - people of all races, all creeds are made brothers by their common search for truth and self-government. In the ranks of this vast democratic peacetime army can be found the housewife studying interior decoration, a retired businessman finding expression in a new hobby or a young man learning a new trade. The little red school house at night has become a thrilling, sparkling palace of light, opening the way for fuller living to those who wish to grow.

The Need for Evaluation Of and Changes In Adult Vocational-Technical Programs

The evaluation of an adult education program has been defined by Bergevin (5) as a process directed to discovering the extent to which a learning team accomplished what it set out to do. According to Bergevin, evaluating the adult program, determining where it has failed or succeeded and why, is essential to its ultimate success. For, in addition to providing a means of measuring the degree of achievement, the process of evaluation can be a sensitive learning experience for participants in the learning program.

Bergevin states that each program of adult learning should have realistic, specific goals or objectives clearly stated in written form - a determinate statement of intent reviewed and discussed by all participants in the program. This document should be used to evaluate the accomplishments of the learning program as it progresses. Some questions that should be included in an effective instrument of evaluation are:

(1) Will graduates really use the training they received? (2) How effective is this training in terms of on-the-job application? (3) How can this program be improved? (4) Does this program consider the needs and related interests of the adult learner? (5) Does this program meet the learner's real needs or just those of the social order?

Evaluation which does not result in constructive program changes generally represents a loss in time and energy. Bergevin concludes that it is necessary to have an awareness of what it is that needs to be evaluated. For example, nothing is quite as boring to most adult learners as having to sit hour after hour and listen to somebody tell them what they need to know or what he thinks they need to know. This passive learning situation does not bring out the best in most adult learners. Programs of adult education have been ruined because persons who conducted them were unaware that they were using the same methods in dealing with adults that they used with children.

Bruhns (7) has defined the evaluation process more broadly, calling it the "making of judgments about the value for some purposes of ideas, works, solutions, methods, materials, etc. It involves the use of criteria as well as standards for appraising the extent to which particulars are accurate, effective, economical or satisfying. The judgments may be either quantitative or qualitative, and the criteria may be either those determined by the student or those which are given to him."

Byram's study (11), on the other hand, is strongly dominated by a national concern with evaluation of vocational and technical education. The question of availability; of service to all age groups and levels of education and to all people of varying ability, background and interests; and breadth of offering to meet demand for trained workers in a rapidly

changing occupational complex and underemployment or unemployment; all have called for study. These have also become the concern of people in local communities and in the state, in view of increasing investments in education. He has offered these assumptions about an effective evaluation of adult programs:

1. The improvement and expansion of adult vocational programs should be based on an evaluation of the program.
2. School officials and citizens want to evaluate their programs, want help in this endeavor and desire education in evaluating principles and procedures.
3. Evaluation of local programs should be the concern of those effected by and those involved in the program.
4. Educators and citizens are not primarily concerned with outcomes of programs, when making evaluations, but with concern for the ways and means largely in relation to these outcomes.

Some educational leaders stress the favorable results achieved in individual or self-evaluation. The work of Grobman, McGee and Reynolds (14) reflects this concept:

Evaluation exists as one means of ascertaining the present status and development of the educational program. The evaluation results permits the educational program to be analyzed so that continuous improvement can be made. It must be flexible and subject to change to be of greatest value. It must stress the essential elements that have the greatest possibility for improved performance and function. The evaluation procedure should stress the forward look - the forward march toward constant improvement and growth of quality education. The best evaluation is carried on by the local district as self-evaluation.

This same theme dominates the study of the evaluation of adult education programs by Knox (18). He states that the most important reason why the individual adult should be involved in the process of appraising his needs, some of which might be met in part through participation in

an educational program, is that the gap that exists is essential if he is to participate, and to learn, and to use what he learns from the educational program. Knowledge about how the individual views his needs that are related to a given aspect of life can enable the program planner to help clarify for the individual both the nature of his needs and how the educational program can help to close this gap. The results of educational evaluation can be used directly to improve the process being evaluated, and to this end, is much more effective if those who will be affected, the learner and the teacher, are involved in the evaluation process. He also points out that many teachers mistakenly assume that the needs of the prospective participants are similar to those previously enrolled in such a course.

Educational specialists point out that the legislatures, state educational boards and Congress, all presently involved in adult vocational-technical programs, are no longer content to wait ten years or more before educators decide to find out if the programs are in fact doing what was claimed for them at the outset. There are warning signs along the way that education must meet these needs or it will find outside sources being brought in to do what education has failed to do for itself (8).

A recent California State Department of Education (26) underlines the need for effective and continuous evaluation programs:

Evaluation is an important aspect of the industrial world. Evaluation is equally important in the field of education, and due to rapid industrial and technological developments, evaluation of vocational education programs must be a continuous process. The product to be evaluated is the individual not only capable of entry into the labor market but one who is capable of persisting and progressing in the occupation. Placement of the vocational graduate and success on the job is an indication

of the effectiveness of the vocational education program. Maximum program support may be expected when the employer receives a satisfactory product.

In his study, Schroeder (27) has also concentrated on evaluation of adult education from the standpoint of national programs. He says: "Studies are urgently needed to explore the effectiveness of various relationships that have been established and the various instrumentalities that have been developed to implement federally funded programs of all sorts."

Evaluation to effect improvements in adult education programs of all types is reflected in the works of Kempfer (16), who finds that the basic purpose of evaluation is to stimulate growth and improvement. He states: "Comprehensive evaluation of a program requires that it be examined, both quantitatively and qualitatively from at least two points of view: (1) the amount and kind of activity, and (2) the results."

Thatcher (30), who sees evaluation as "an essential and inescapable part of the process of administering an adult program," is concerned that programs have become so large and comprehensive that evaluation can no longer be accomplished effectively. Consequently, he believes that programs must be designed to include the capability of evaluating single aspects of a program. Thatcher's efforts have been primarily directed toward public school programs; however, there is much in his work which has broad applicability. Most educators would probably agree with the following Thatcher quotation on the overall purpose of adult education:

It is the responsibility of the adult program to train persons for the work life, home life and socio-civic life in which they are to participate. No public school adult education program can remain in an ivory tower feeling secure in its knowledge of good training methods and organization of instructional material. These programs belong to the community and the citizens should have the privilege, as well as the responsibility of assisting in its formation and evaluation.

CHAPTER III

METHODOLOGY AND DESIGN

Introduction

This study attempted to establish criteria for determining effectiveness of adult vocational education programs and then by submitting these criteria to administrators, teachers, and students for rating as to their importance, develop an instrument whereby the adult vocational programs offered by the Oklahoma City Public Schools can be systematically evaluated.

Background of Delphi Technique

In order to develop an evaluation instrument, one must rely on value judgments. Maximizing the use of intuitive judgment in an effective manner is a most difficult problem. If this is to be done, expert judgment should be sought and proper conditions created under which they can communicate and perform most ably. If more than one expert or consultant is to be used, it is important that their combined expertise be utilized in a systematic manner.

The traditional manner of arriving at a consensus of opinion among a group or panel of experts through a round table discussion has received much criticism. The outcome, many times, has been influenced by the persuasive mannerisms of certain members of the group or by the ever present personal desire of certain members getting on the bandwagon with

the majority.

The Delphi technique, developed by Olaf Helmer and his colleagues at the Rand Corporation in the early 1950's, is a method of eliciting and refining group judgment without bringing the group together in a face-to-face confrontation. These convergent opinions of the group are usually gained through the use of successive questionnaires and feedback with each round of questions being designed to produce more carefully considered group opinion (15).

In its simplest form, the Delphi technique eliminates committee activity among the experts altogether and replaces it with a carefully designed program of sequential individual interrogations (usually best conducted by questionnaire) interspersed with information input and opinion feedback.

There are many variations of the Delphi Technique. One procedure which involves some rather sophisticated ways of arranging and presenting information may take a form such as the following (24):

1. The first questionnaire may call for a list of opinions involving experienced judgment, say a list of predictions or recommended activities.
2. On the second round, each expert receives a copy of the list, and is asked to rate or evaluate each item by some such criterion as importance, probability of success, and so on.
3. The third questionnaire includes the list and the ratings, indicates the consensus, if any, and in effect, asks the experts either to revise their opinions or else to specify their reasons for remaining outside the consensus.
4. The fourth questionnaire includes list, ratings, the consensus, and minority opinions. It provides a final chance for the revision of opinions.

Several alternative methodologies were considered for this study other than the one selected - the Delphi technique. The Delphi technique was chosen because of its ability to gain seemingly unbiased expertise

opinion and secure individual and group judgment without face-to-face confrontation. In addition, the Delphi technique's (24)

. . . power seems to lie in the fact that it creates some of the most important elements of an ideal debate. It provides an impersonal anonymous setting in which opinions can be expressed in clear terms and heeded before the voicing of criticisms and counteropinions, a setting in which ideas can be modified on the basis of reason rather than prestige or a desire to climb on the bandwagon.

It is recognized that adult vocational programs vary in their emphasis from one institution to another. However, in spite of these differences, it is believed there are commonalities of objectives that would warrant a study designed to secure expert convergent opinions concerning the effectiveness of adult vocational program offerings.

Development of the Instrument

With the assistance of Dr. Robert Price, doctoral committee chairman, eight experienced adult vocational administrators were identified as potential panelists for this study. Those identified were:

1. Mr. Arch Alexander, Assistant Director, State Department of Vocational-Technical Education, Stillwater, Oklahoma.
2. Mr. Lloyd Brownsworth, Assistant Director, O. T. Autry Area Vocational-Technical School, Enid, Oklahoma.
3. Mr. Wesley Driggs, Director, Adult Education, Oklahoma City Public Schools, Oklahoma City, Oklahoma.
4. Dr. Harry E. Frank, Professor, Vocational and Adult Education, Auburn University, Auburn, Alabama.
5. Mr. George Marsh, Director, Adult Education, Tulsa Public Schools, Tulsa, Oklahoma.
6. Dr. Robert Meisner, Head, Adult and Occupational Education,

Kansas State University, Manhattan, Kansas.

7. Dr. Lee Ralston, Director, Trade and Industrial Education, Los Angeles County Schools, Los Angeles, California.

8. Mr. Ed Schirmer, Retired, Former Director, Oklahoma City Area Vocational-Technical School, Mannford, Oklahoma.

Each of these administrators were contacted personally by the author. The purpose of the study was explained in detail and they were invited to participate in this study as a panelist, via Delphi technique, in identifying criteria they considered important in determining the effectiveness of an adult vocational program. All of the above mentioned administrators expressed verbal interest in the study and agreed to participate as a member of the panel.

The panel was subjected to three questionnaires. In the first questionnaire, Appendix A, the panelists were asked as one of eight persons experienced in adult education to list ten or more criteria they considered appropriate in determining quality and effectiveness of vocational-technical programs participated in by adults.

An immediate reply was received from each of the panelists. A listing of the suggested criteria was compiled in the order they were received. After deletion of duplications, a total of fifty-three criteria, Appendix B, had been recommended by the respondents on the first questionnaire.

On the second questionnaire, the panelists were asked to evaluate the fifty-three criteria individually as to their opinion of the importance of each item. They were to use a rating of one to five with the larger the number the greater their importance. The panelists were asked to mark a zero in front of any item they considered had been stated more

clearly in another item of the questionnaire. Also, each respondent was given another opportunity to add other criteria that might have occurred to them since the first round.

An item analysis was made of the second questionnaire. Under analysis of the five-point system or rating, the importance of each item in the questionnaire was determined by a mean score. The author's interpretation of these scores as established by the questionnaire was: (5.00) of great importance, (4.00) of above average in importance, (3.00) of medium importance, (2.00) of little importance, (1.00) of no importance, and (0.00) those items stated more clearly in another item of the questionnaire.

In analyzing the responses, thirty items were deleted from the original listing because of their having received a mean rating below 2.5 (between "medium importance" and "little importance"). It was arbitrarily decided by the author, because of a wide variation in mean score at this point, that items with a mean rating below 2.5 were possibly of too little importance to be included in this study.

The twenty-three remaining items, as seen in Appendix C, with a mean score of 2.5 or more were used to continue this study. No formal structure was maintained. Items relating to the same general area were scattered throughout the form. These items, with their mean rating included, were returned to the panelists for their approval, revisions, and additions. Consensus of the panel suggested minor word revision in four items and the deletion of one item because of duplication.

Collection of Data

The second phase of this study involved the evaluation of these criteria, Appendix D, by five different groups of adults. The groups were:

1. The panel of eight experienced adult administrators.
2. Twenty vocational teachers in the Oklahoma City Public School System that have taught 72 or more hours in an adult vocational class.
3. Twenty vocational teachers in the Oklahoma City public School System that have never taught an adult vocational class.
4. Adult students enrolled in the Oklahoma City Practical Nurse Program during the 1970-71 school year.
5. Adults enrolled at the Oklahoma City Area Vocational-Technical School during the second semester of the 1970-71 school year.

In order to secure respondents' reactions toward the evaluative criteria developed in the above described manner and to facilitate comparison of these reactions, an eleven-point rating scale was utilized. An eleven point scale was selected over a scale using fewer points because of, "The well-established finding that scale reliability increases with the number of response categories used." (23)

Personal interviews conducted by the investigator, except for the panel, were used in order to make explanation as needed for clarification of items so that uniform interpretations would be made by each respondent. Respondents were asked to rate each item individually using the rating scale of one to eleven, with the larger the number the greater the importance. They were asked to rate each item as to their perception of that particular item's importance in determining the effectiveness of an adult vocational program. Participants were asked to refrain

from signing the questionnaire or placing any type of identification on them that would in any manner identify them with their questionnaire.

Analysis of the Data

The data collected through the questionnaire and interviews were tabulated as to the response to each of the criteria and the degree of importance of this criterion in determining the effectiveness of an adult vocational class or program as perceived by the individual respondent. The mean response of each group to each criterion was determined by multiplying the number of responses within each category by the point value of each category and then taking an arithmetic average. In order to arrive at a mean response of each criterion, a mean response for the total respondent group was calculated. As was pointed out by Downie and Heath in their text, Basic Statistical Methods, "this mean cannot be obtained by averaging sample means." Therefore, a procedure recommended by these authors was utilized. This involved multiplying the mean response of each group to each criterion by the number of individuals within the group and then summing the products thus obtained for each group. This sum of products was divided by the total number of respondents to obtain the overall weighted mean response. The following formula was utilized for this purpose:

$$\bar{X}_T = \frac{\sum X}{\sum N}$$

Where: \bar{X}_T = Weighted or total mean
 $\sum X$ = Sum of mean response of groups X number of respondents
 $\sum N$ = Total number of respondents

The means of each respondent group could not be averaged because the groups were of unequal size. These data are presented and analyzed in Chapter IV and then summarized with recommendations for implementation and further studies made in Chapter V of this study.

CHAPTER IV

ANALYSIS OF DATA

A detailed discussion of the statistical results of this study constitutes the main body of this chapter. Eight experienced adult vocational administrators, via the Delphi technique, identified twenty-two criteria they considered important in assessing the effectiveness of an adult vocational education program. These criteria constituted the questionnaire used in gathering the data for this study.

Questionnaires were administered personally by the investigator to 396 adult persons involved in vocational education programs offered by the Oklahoma City Public Schools during the 1970-71 school year. This group was exclusive of the panel of experts. The groups involved in this study were: (1) the eight members of the panel of experts, (2) one hundred and five persons enrolled in the practical nursing program, (3) two hundred and fifty-one persons enrolled in adult vocational classes at the area school, (4) twenty vocational teachers that have taught adult classes, and (5) twenty vocational teachers that have never taught an adult class.

What appeared to be the more appropriate statistical test was chosen and applied in analyzing the data, the mean test of central tendency. An analysis of the data was accomplished by presenting the rating of the twenty-two criteria in individual tabular form. Data were totaled, collated and placed in tabular form, for purpose of analysis, as to the

respondent's rating of each criterion. Results of this tabulation will be found in Tables I through Table XXII, with a summary of all responses presented in Table XXIII.

Correlation of Curriculum with Placement

According to data presented in Table I, the experienced vocational teachers showed a great concern for the structure and content of the curriculum as correlated with placement. This was evidenced by the high mean score of 9.300, with 60 percent of these teachers rating this criterion ten or more on the rating scale. Past experience of vocational teachers, being required to place students on a job, may have influenced this rating.

The wide variance in the ratings by enrollees at the area school, as noted in the table, resulted in a mean response of only 8.275. The practical nurses had an equal wide variance in their ratings, however, their mean response was somewhat higher.

Knowledge and Skill Improvement

Findings presented in Table II, which were concerned with the increase in knowledge and the improvement of skills, reflect a high overall mean rating of 9.151 for this criterion. The data revealed over 50 percent of the respondents rated this criterion in the upper quartile of the rating scale. The high mean rating of 9.600, by the inexperienced vocational teachers, was obtained by 12 of the 20 teachers rating this criterion in the upper two response categories. However, the lower mean rating of 8.905, by the practical nurses, had 50 percent of their group in the same categories. Although most are presently employed, the high

TABLE I

RESPONSE PATTERN TO THE STATEMENT, "CURRICULUM STRUCTURE AND CONTENT ARE CORRELATED
WITH PLACEMENT OPPORTUNITIES IN THE GEOGRAPHICAL AREA"

TYPE OF GROUP	RATING OF CRITERION											TOTAL RESPONSES	CUMULATIVE RESPONSE	MEAN BY GROUP RESPONSE
	Total Number of Respondents by Response Category													
	1	2	3	4	5	6	7	8	9	10	11			
Panel of Experts						1	1		2	2	2	8	73	9.125
Practical Nurse Enrollees		2	2	3	3	11	5	10	11	26	32	105	929	8.848
Area School Adult Enrollees		2	6	9	16	24	24	45	36	36	53	251	2077	8.275
Experienced Vocational Teachers					1	1	1	3	2	6	6	20	186	9.300
Inexperienced Vocational Teachers					1	2	3	4	2	3	5	20	173	8.650
TOTALS:		4	8	12	21	39	34	62	53	73	98	404	3438	

NOTE: Overall Mean Response = 8.510

rating response of a large number of area school enrollees leads one to assume they are enrolled in classes to improve their skill in order to maintain their present position or enhance their opportunity for advancement.

Use of Community Resources

The low ratings indicated by respondents, in Table III, may possibly concern many vocational educators. Much emphasis has been placed on the use of community resources by vocational educators and received a high mean response of 9.000 by the experienced vocational teachers. Fifty percent of the panel placed this criterion in the upper quartile, while the other groups deemed it of somewhat less importance.

The low mean response of 7.838, by the practical nurse enrollees, may be questioned by some and would certainly be a subject suitable for further study. A comment by one of the enrollees at the area school, "I know what I am doing on my job where I work, I only came out here to learn how to do it better," possibly may indicate to some educators that many of the students do not realize the many resources used by the instructor in planning his curriculum.

Provision for Varying Abilities

The prevalence of high ratings given by the experienced vocational teachers and the panel of experts as to the importance of providing for students with varying abilities and interest, as found in Table IV, reflect a national trend of providing for the masses, especially for the less fortunate. A high mean rating of 8.800 by the inexperienced vocational teachers was possibly a carry over of a similar emphasis in their

TABLE II

RESPONSE PATTERN TO THE STATEMENT, "AN INCREASE IN KNOWLEDGE OR IMPROVEMENT OF SKILLS BY THOSE ENROLLED IN PROGRAM IS EVIDENCED IN JOB PLACEMENT, ADVANCEMENT, INCREASED RESPONSIBILITY, SALARY INCREASE, AND/OR IMPROVED EMPLOYER-EMPLOYEE RELATIONS"

TYPE OF GROUP	RATING OF CRITERION											TOTAL RESPONSES	CUMULATIVE RESPONSE	MEAN BY GROUP RESPONSE
	Total Number of Respondents by Response Category													
	1	2	3	4	5	6	7	8	9	10	11			
Panel of Experts							1	2	1	4		8	79	9.875
Practical Nurse Enrollees			3	3	6	3	6	16	15	22	31	105	935	8.905
Area School Adult Enrollees		2	5	7	10	11	8	29	40	68	71	251	2272	9.052
Experienced Vocational Teachers							1	4	3	7	5	20	191	9.550
Inexperienced Vocational Teachers						1		2	5	7	5	20	192	9.600
TOTALS:		2	8	10	16	15	16	51	65	105	116	404	3669	

NOTE: Overall Mean Response = 9.151

TABLE III

RESPONSE PATTERN TO THE STATEMENT, "COMMUNITY RESOURCE (PEOPLE, PLACES, PRODUCTS)
ARE USED TO ENRICH CURRICULUM"

TYPE OF GROUP	RATING OF CRITERION											TOTAL RESPONSES	CUMULATIVE RESPONSE	MEAN BY GROUP RESPONSE
	Total Number of Respondents by Response Category													
	1	2	3	4	5	6	7	8	9	10	11			
Panel of Experts					1		1	1	1	4		8	69	8.625
Practical Nurse Enrollees		2	1	5	10	13	13	16	16	14	15	105	823	7.838
Area School Adult Enrollees			7	8	21	32	29	57	36	34	27	251	1970	7.847
Experienced Vocational Teachers					2	1	1	2	4	5	5	20	180	9.000
Inexperienced Vocational Teachers				2		1	2	5	4	5	1	20	165	8.250
TOTALS:		2	8	15	34	47	46	81	61	62	48	404	3207	

NOTE: Overall Mean Response = 7.938

secondary program.

At the same time, a low mean response of 8.505, by the practical nurse enrollees, may have been biased because of their rigid entrance exam making them feel as if all were expected to have an exacting experience. A comment by an area school enrollee, "I appreciate being able to do what I want to do in this class and having a teacher that will help me learn to do those things that other members of the class already know how to do," indicated the importance of this criterion as perceived by this group of participants.

Standards Adhered to By Instructor

Although the mean responses of the groups as to the performance of the instructor, as found in Table V, are somewhat similar; there are substantial differences in the ratings of this criterion within the group. The area school enrollees' mean response rating of 9.598 places this criterion as sixth most important criteria in the study, whereas, the mean response of 8.600, by the experienced vocational teachers, places this criterion as fifteenth in importance among the twenty-two listed. The high mean response of 9.250, by the panel of experts, indicated they considered this criterion as one of great importance.

Use of Follow-Up Studies

Follow-up studies, as a means of evaluating effectiveness of adult vocational programs, received its lowest rating among the responding groups by the adult enrollees at the area school. Total responses in Table VI reveal that 60 percent of the experienced vocational teachers rated the importance of follow-up in the upper quartile of the scale,

TABLE IV

RESPONSE PATTERN TO THE STATEMENT, "PROGRAM PROVIDES OPPORTUNITY FOR THE LEARNING NEEDS OF VARYING TYPES OF ABILITIES, INTEREST OF PUPILS, AND STUDENTS' WORK EXPERIENCE"

TYPE OF GROUP	RATING OF CRITERION											TOTAL RESPONSES	CUMULATIVE RESPONSE	MEAN BY GROUP RESPONSE
	Total Number of Respondents by Response Category													
	1	2	3	4	5	6	7	8	9	10	11			
Panel of Experts								3	2	1	2	8	74	9.250
Practical Nurse Enrollees		1	1	3	8	7	13	14	17	13	28	105	893	8.505
Area School Adult Enrollees		3	4	9	12	16	18	40	42	53	54	251	2158	8.595
Experienced Vocational Teachers					2	1		2	3	5	7	20	186	9.300
Inexperienced Vocational Teachers					2	2	1	1	5	5	4	20	176	8.800
TOTALS:		4	5	12	24	26	32	60	69	77	95	404	3487	

NOTE: Overall Mean Response = 8.631

TABLE V

RESPONSE PATTERN TO THE STATEMENT, "STANDARDS OF PERFORMANCE ARE IN EVIDENCE AND ADHERED TO BY THE INSTRUCTOR"

TYPE OF GROUP	RATING OF CRITERION											TOTAL RESPONSES	CUMULATIVE RESPONSE	MEAN BY GROUP RESPONSE
	Total Number of Respondents by Response Category													
	1	2	3	4	5	6	7	8	9	10	11			
Panel of Experts							2		2	2	2	8	74	9.250
Practical Nurse Enrollees			3	2	8	9	8	10	9	27	29	105	917	8.733
Area School Adult Enrollees		3	5	8	13	13	19	48	36	45	61	251	2158	8.598
Experienced Vocational Teachers					2	1	2	6	1	3	5	20	172	8.600
Inexperienced Vocational Teachers					1	2	2	6	3	1	5	20	171	8.550
TOTALS:		3	8	10	24	25	33	70	51	78	102	404	3492	

NOTE: Overall Mean Response = 8.644

while only 40 percent of the enrollees at the area school gave this criterion a similar rating. Even though the panel of experts gave this criterion its highest rating, one of the panel rated this criterion a low of five out of a possible rating of eleven.

One of the inexperienced vocational teachers observed, "One of the best methods of evaluating any program is to look at its products."

Curriculum Guide and Instructional Materials

According to response ratings in Table VII, adults enrolled in the practical nurse program placed greater emphasis on the availability of curriculum guides and instructional materials than did the other groups in this survey. More than 50 percent of the practical nurse enrollees scored this criterion ten or above on the eleven-point rating scale. The same table reveals that only 35 percent of the inexperienced vocational teachers made a similar rating. This high rating, by the practical nurse enrollees, was obtained although 20 of the enrollees rated this criterion six or lower on the rating scale.

One hundred and eleven, of the total 404 included in this study, considered this criterion of significant importance as disclosed by their giving it the top rating of the response category.

Sequential Development of Skills and Techniques

An analysis of findings, presented in Table VIII, infers the enrollees in the practical nurse program placed a great deal of emphasis on the sequential development of skills and techniques. More than 50 percent of these enrollees rated this criterion in the upper quartile of the rating scale, as did the experienced vocational teachers and the panel

TABLE VI

RESPONSE PATTERN TO THE STATEMENT, "FOLLOW-UP STUDIES ARE USED AS A MEANS
OF EVALUATING EFFECTIVENESS OF INSTRUCTION"

TYPE OF GROUP	RATING OF CRITERION											TOTAL RESPONSES	CUMULATIVE RESPONSE	MEAN BY GROUP RESPONSE
	Total Number of Respondents by Response Category													
	1	2	3	4	5	6	7	8	9	10	11			
Panel of Experts					1			8	1	2	2	8	72	9.000
Practical Nurse Enrollees		2	1	3	4	12	6	17	21	16	23	105	891	8.486
Area School Adult Enrollees		4	6	8	24	28	28	46	31	40	36	251	1985	7.912
Experienced Vocational Teachers					1	4		3	5	3	4	20	172	8.600
Inexperienced Vocational Teachers					1	3	4	2	3	4	3	20	167	8.350
TOTALS:		6	7	11	31	47	28	70	61	65	68	404	3287	

NOTE: Overall Mean Response = 8.136

TABLE VII

RESPONSE PATTERN TO THE STATEMENT, "COMPREHENSIVE CURRICULUM GUIDE AND INSTRUCTIONAL MATERIALS ARE READILY AVAILABLE AND UTILIZED BY BOTH INSTRUCTOR AND PUPILS"

TYPE OF GROUP	RATING OF CRITERION											TOTAL RESPONSES	CUMULATIVE RESPONSE	MEAN BY GROUP RESPONSE
	Total Number of Respondents by Response Category													
	1	2	3	4	5	6	7	8	9	10	11			
Panel of Experts						1		2	2	1	1	8	72	9.000
Practical Nurse Enrollees			2	3	3	12	6	12	12	20	35	105	936	8.914
Area School Adult Enrollees		2	5	9	15	18	19	36	45	37	65	251	2149	8.562
Experienced Vocational Teachers						3	2	5	2	4	4	20	174	8.700
Inexperienced Vocational Teachers					2	2	3	3	3	2	5	20	169	8.450
TOTALS:		2	7	12	20	36	30	58	64	64	111	404	3500	

NOTE: Overall Mean Response = 8.666

of experts. Although the mean response of the experienced vocational teachers was 8.950, it will be noted that 15 percent of these teachers rated this criterion as low as five on the rating scale.

According to one of the nurse enrollees, "The only way to train a nurse is by teaching the program in the sequential manner in which they are supposed to be taught."

Adaptation to New Advances

According to the responses in Table IX, forty-four of the 105 adult persons enrolled in the practical nurse training program rated the standard of adapting instruction to new advances in methods of teaching and changing technology the highest rating possible in order of importance. Although there was a small variance of the means among the groups, there was a wide variance of the ratings within the individual groups.

Whereas, the enrollees in the practical nursing program rated this criterion as third in importance among the twenty-two criteria surveyed, the experienced vocational teachers rated this standard fifteenth on the overall rating of the twenty-two criteria with a wide variance in their rating and an 8.600 mean response.

Provision for Administrator

Responses, as to the importance of a designated administrator with full responsibility of developing adult vocational programs, were fairly evenly distributed throughout the response categories by all of the groups surveyed, as indicated by ratings in Table X. One of the panel of experts gave this criterion a low rating of three, with other groups having equally low responses. As can be noted, over 50 percent of the

TABLE VIII

RESPONSE PATTERN TO THE STATEMENT, "THE COURSE OF STUDY PROVIDES FOR A SEQUENTIAL DEVELOPMENT OF SKILLS AND TECHNIQUES"

TYPE OF GROUP	RATING OF CRITERION											TOTAL RESPONSES	CUMULATIVE RESPONSE	MEAN BY GROUP RESPONSE
	Total Number of Respondents by Response Category													
	1	2	3	4	5	6	7	8	9	10	11			
Panel of Experts							2	1	1	2	2	8	73	9.125
Practical Nurse Enrollees	1	1	3	4	10	1	16	9	23	37		105	950	9.048
Area School Adult Enrollees			4	7	12	18	15	36	43	60	56	251	2204	8.781
Experienced Vocational Teachers				1	2		1	2	4	4	6	20	179	8.950
Inexperienced Vocational Teachers					1	1	2	4	4	4	4	20	177	8.850
TOTALS:	1	5	11	19	29	21	59	61	93	105		404	3583	

NOTE: Overall Mean Response = 8.869

TABLE IX

RESPONSE PATTERN TO THE STATEMENT, "INSTRUCTION IS ADAPTED TO NEW ADVANCES IN METHODS OF TEACHING AND CHANGING TECHNOLOGY"

TYPE OF GROUP	RATING OF CRITERION											TOTAL RESPONSES	CUMULATIVE RESPONSE	MEAN BY GROUP RESPONSE
	Total Number of Respondents by Response Category													
	1	2	3	4	5	6	7	8	9	10	11			
Panel of Experts						1	1	2	2	2		8	66	8.250
Practical Nurse Enrollees			1	2	5	8	4	13	15	12	44	105	963	9.171
Area School Adult Enrollees		2	7	9	15	24	18	33	33	46	64	251	2131	8.490
Experienced Vocational Teachers				2	2	1	1	2	2	3	7	20	172	8.600
Inexperienced Vocational Teachers					2	2	3	3	1	3	6	20	171	8.550
TOTALS:		2	8	13	24	36	27	54	53	66	121	404	3503	

NOTE: Overall Mean Response = 8.671

practical nurse participants rated this criterion ten or above on the scale used in this study, as did the experienced vocational teachers.

Availability of Funds

The overall mean response of 9.198, as noted by respondents' ratings, reveals the importance the responding groups placed on having sufficient funds available for the operation of proposed program. Over 50 percent of all respondents rated this criterion ten or above on the response rating scale. Several respondents rated this criterion in the middle quartiles, yet, the overall rating of this criterion was second among the twenty-two used in this study.

The panel of experts, practical nurses, and the experienced vocational teachers rated this criterion as the most important of all the criteria used in this study for determining the effectiveness of adult vocational programs. One of the panel members summed up this rating by saying, "If you don't have sufficient funds, you cannot have any type of a program, much less a good one."

Availability of Placement Services

Analysis of the responses in Table XII indicate a wide divergent opinion of the respondents as to the importance of available placement services in adult education programs. Although the 8.048 mean response of the area school adult enrollees was lower than that of three of the other responding groups, ratings within this group indicate they placed more emphasis on the importance of this criterion than did the other groups. The responses reveal a wide spread of the ratings by area school enrollees, with 30 of their respondents rating this criterion five or

TABLE X

RESPONSE PATTERN TO THE STATEMENT, "ADMINISTRATOR IS PROVIDED BY SPONSORING INSTITUTION
WITH FULL TIME RESPONSIBILITY FOR ADMINISTERING AND DEVELOPING
ADULT VOCATIONAL PROGRAMS"

TYPE OF GROUP	RATING OF CRITERION											TOTAL RESPONSES	CUMULATIVE RESPONSE	MEAN BY GROUP RESPONSE
	Total Number of Respondents by Response Category													
	1	2	3	4	5	6	7	8	9	10	11			
Panel of Experts			1			1		2	1	1	2	8	66	8.250
Practical Nurse Enrollees			1	1	7	9	9	13	11	22	32	105	934	8.895
Area School Adult Enrollees		1	5	11	14	32	23	34	45	44	42	251	2063	8.219
Experienced Vocational Teachers					2	2	1	4	1	4	6	20	176	8.800
Inexperienced Vocational Teachers		1			1	2	3	3	2	4	4	20	167	8.350
TOTALS:		2	7	12	24	46	36	56	60	75	86	404	3406	

NOTE: Overall Mean Response = 8.431

TABLE XI

RESPONSE PATTERN TO THE STATEMENT, "SUFFICIENT FUNDS ARE AVAILABLE FOR
OPERATION OF PROGRAM"

TYPE OF GROUP	RATING OF CRITERION											TOTAL RESPONSES	CUMULATIVE RESPONSE	MEAN BY GROUP RESPONSE
	Total Number of Respondents by Response Category													
	1	2	3	4	5	6	7	8	9	10	11			
Panel of Experts								2		2	4	8	80	10.000
Practical Nurse Enrollees			2	1	4	5	6	9	10	17	51	105	995	9.476
Area School Adult Enrollees			5	6	12	17	13	30	33	62	73	251	2255	8.984
Experienced Vocational Teachers							1	2	3	3	11	20	201	10.050
Inexperienced Vocational Teachers					1	2		2	4	5	6	20	185	9.250
TOTALS:			7	7	17	24	20	45	50	89	145	404	3716	

NOTE: Overall Mean Response = 9.198

lower.

Many of the experienced vocational teachers indicated they considered the placement of students as part of their duty and responsibility. One stated, "In working closely with my students, I become well acquainted with their capabilities and am able to place them in jobs well suited to their abilities." Over 25 percent of the total respondents rated this item six or below as to importance on the eleven-point rating scale.

Slot-In Enrollment

Responses in Table XIII disclose a large percentage of respondents rated this criterion lower than any other criterion of this study. Only eight percent of the respondents rated the importance of providing for slot-in enrollment at the top of the rating scale, while over 12 percent rated this criterion as low as four on the same scale. None of the panel of experts or the inexperienced vocational teachers rated this criterion at the top of the response category on the scale.

The responding groups were unanimous in rating this standard as the least important of those used in this study indicating that adults were influenced by the strict structure of their formal secondary and higher education programs.

Manpower Needs

A large number of practical nurse enrollees gave a high rating to the criterion concerned with realistic and projected manpower needs, as reported in Table XIV. As noted, over 50 percent of the practical nurses rated this criterion in the upper quartile of the response categories. One nurse commented, "I would not have enrolled in this program and

TABLE XII

RESPONSE PATTERN TO THE STATEMENT, "PLACEMENT SERVICES ARE AVAILABLE TO BOTH
EMPLOYER AND ADULT STUDENTS"

TYPE OF GROUP	RATING OF CRITERION											TOTAL RESPONSES	CUMULATIVE RESPONSE	MEAN BY GROUP RESPONSE
	Total Number of Respondents by Response Category													
	1	2	3	4	5	6	7	8	9	10	11			
Panel of Experts					1	1	1		2	2	1	8	67	8.375
Practical Nurse Enrollees			2	7	13	2	13	15	12	13	28	105	868	8.266
Area School Adult Enrollees		4	7	9	19	31	23	43	32	32	51	251	2020	8.048
Experienced Vocational Teachers					3	2	2	3	4	4	2	20	163	8.150
Inexperienced Vocational Teachers				1	2	3	1	6	2	3	2	20	157	7.850
TOTALS:		4	9	17	38	39	40	67	52	54	84	404	3275	

NOTE: Overall Mean Response = 8.106

TABLE XIII

RESPONSE PATTERN TO THE STATEMENT, "PROVISIONS ARE MADE FOR SLOT-IN ENROLLMENT DURING THE PROGRAM"

TYPE OF GROUP	RATING OF CRITERION											TOTAL RESPONSES	CUMULATIVE RESPONSE	MEAN BY GROUP RESPONSE
	Total Number of Respondents by Response Category													
	1	2	3	4	5	6	7	8	9	10	11			
Panel of Experts					1	1	1	2	2	1		8	62	7.750
Practical Nurse Enrollees			6	6	11	11	23	12	8	18	10	105	782	7.488
Area School Adult Enrollees		3	7	26	27	39	42	36	26	23	22	251	1788	7.123
Experienced Vocational Teachers				2	3	3	3	3	3	2	1	20	144	7.200
Inexperienced Vocational Teachers			1	1	2	4	4	3	4	1		20	139	6.950
TOTALS:		3	14	35	44	58	73	56	43	45	33	404	2915	

NOTE: Overall Mean Response = 7.213

spent my time if I had not been pretty sure of getting a job here in Oklahoma City when I get out."

The other four responding groups tended to disagree somewhat in their ratings with a large number of responses being made at each of the response categories. The overall mean response of 8.547 places this criterion eleventh in importance among the twenty-two listed on the questionnaire, with only the rating of the practical nurse enrollees placing it in a more important role.

Qualifications of Staff

The qualifications of the staff received the highest rating of any criterion used in this study. In fact, more than 61 percent of all the persons surveyed scored this criterion in the upper two response categories of the questionnaire, as observed in Table XV. All of the respondents, except 32 of the 404 persons interviewed by the investigator, rated qualifications of the staff in the upper half of the rating scale.

With an overall mean of 9.233, this criterion was deemed the most important criterion used in this study for evaluating the effectiveness of adult vocational programs. Total responses revealed 248 of the 404 interviewed rated this criterion ten or above on the rating scale.

Evaluation of Student's Progress

In observing the compilation of the responses for evaluating the progress of the enrollee by performance, rather than length spent in a particular program, in Table XVI, one can readily observe the importance of this item as perceived by the panel of experts. All of the members of the panel of experts rated this criterion as high as seven or higher

TABLE XIV

RESPONSE PATTERN TO THE STATEMENT, "PROGRAM OFFERING IS BASED ON REALISTIC
CURRENT AND PROJECTED MANPOWER NEEDS"

TYPE OF GROUP	RATING OF CRITERION											TOTAL RESPONSES	CUMULATIVE RESPONSE	MEAN BY GROUP RESPONSE
	Total Number of Respondents by Response Category													
	1	2	3	4	5	6	7	8	9	10	11			
Panel of Experts						1		2	2	1	2	8	72	9.000
Practical Nurse Enrollees			1	4	5	7	6	11	12	30	29	105	943	8.981
Area School Adult Enrollees		4	4	5	14	24	21	47	45	43	44	251	2096	8.351
Experienced Vocational Teachers					2	2	3		3	5	5	20	175	8.750
Inexperienced Vocational Teachers					2	1	2	6	4	2	3	20	167	8.350
TOTALS:		4	5	9	23	35	32	66	66	81	83	404	3453	

NOTE: Overall Mean Response = 8.547

TABLE XV

RESPONSE PATTERN TO THE STATEMENT, "QUALIFICATIONS OF STAFF, I.E. TEACHER HAS HAD APPROPRIATE PREPARATION FOR THE OCCUPATION OR RELATED AREA TAUGHT"

TYPE OF GROUP	RATING OF CRITERION											TOTAL RESPONSES	CUMULATIVE RESPONSE	MEAN BY GROUP RESPONSE
	Total Number of Respondents by Response Category													
	1	2	3	4	5	6	7	8	9	10	11			
Panel of Experts							1	2		2	3	8	76	9.500
Practical Nurse Enrollees		1	1	2	4	9	4	13	9	14	48	105	968	9.219
Area School Adult Enrollees		2	4	6	12	14	9	21	27	68	88	251	2306	9.187
Experienced Vocational Teachers						1	1	1	3	7	7	20	195	9.750
Inexperienced Vocational Teachers						2	2	2	3	5	6	20	185	9.250
TOTALS:		3	5	8	16	26	17	39	42	96	152	404	3730	

NOTE: Overall Mean Response = 9.233

on the rating scale. The mean response of their group was 9.250.

The panel of experts rated this criterion fifth in their overall rating, whereas the inexperienced vocational teachers rated it eighteenth among the twenty-two criteria used in the study. The responses of adult enrollees at the area school were fairly evenly distributed among the response categories of the questionnaire with a mean response of 8.462 by their group.

Convenience of Classes and Adequacy of Facilities

The location of classes in convenient places and the provision for adequate equipment were rated as very important criteria by a high percentage of the respondents in all of the groups except the practical nurse enrollees. Data in Table XVII reveals the panel of experts, with a mean response of 9.250, and the experienced vocational teachers, with a mean response of 9.200, rated this criterion higher than did the other groups of respondents.

The practical nurse enrollees' low mean response of 8.666 was influenced by a wide range in the response rating by this group.

Ancillary Services

The wide range of the responses by vocational teachers as to the importance of providing ancillary services indicate they may perceive this service as part of their responsibility. Data in Table XVIII indicates somewhat of a disagreement between the experienced vocational teachers and the panel of experts. Fifty percent of the panel of experts rated this criterion in the upper two responses of the scale, while only 25 percent of the experienced vocational teachers made a similar rating.

TABLE XVI

RESPONSE PATTERN TO THE STATEMENT, "PROGRESS IS EVALUATED ON STUDENT'S PERFORMANCE WITH COMPLETION RELATED TO PERFORMANCE AS OPPOSED TO NUMBER OF HOURS COMPLETED OR LENGTH OF COURSE"

TYPE OF GROUP	RATING OF CRITERION											TOTAL RESPONSES	CUMULATIVE RESPONSE	MEAN BY GROUP RESPONSE
	Total Number of Respondents by Response Category													
	1	2	3	4	5	6	7	8	9	10	11			
Panel of Experts							2	1	1	1	3	8	74	9.250
Practical Nurse Enrollees			2	5	4	11	8	13	12	23	27	105	907	8.633
Area School Adult Enrollees			7	9	18	16	21	33	47	53	47	251	2124	8.462
Experienced Vocational Teachers				1		2	1	2	5	5	4	20	178	8.900
Inexperienced Vocational Teachers					3	2	2	4	4	3	2	20	161	8.050
TOTALS:			9	15	25	31	34	53	69	85	83	404	3444	

NOTE: Overall Mean Response = 8.525

TABLE XVII

RESPONSE PATTERN TO THE STATEMENT, "CLASS IS OFFERED IN CONVENIENTLY LOCATED CENTER WITH ADEQUATE FACILITIES AND EQUIPMENT SUITED TO NEEDS OF ADULTS WANTING TO BE SERVED"

TYPE OF GROUP	RATING OF CRITERION											TOTAL RESPONSES	CUMULATIVE RESPONSE	MEAN BY GROUP RESPONSE
	Total Number of Respondents by Response Category													
	1	2	3	4	5	6	7	8	9	10	11			
Panel of Experts						1	2	1	1	3		8	74	9.250
Practical Nurse Enrollees		2	2		6	9	10	13	14	23	26	105	910	8.666
Area School Adult Enrollees		2	5	11	20	20	15	26	31	51	70	251	2155	8.586
Experienced Vocational Teachers					1	2		3	3	5	6	20	184	9.200
Inexperienced Vocational Teachers					1	2	2	4	2	5	4	20	175	8.750
TOTALS:		4	7	11	28	34	27	48	51	85	109	404	3498	

NOTE: Overall Mean Response = 8.658

An overall mean response of 8.054, by the five participating groups, indicates they felt many of the other criteria in the questionnaire were of greater importance. An analysis of responses in the table indicate a wide range of differences of opinion within each group of respondents.

Total Needs of Individual Students

A large percentage of the practical nurse enrollees tended to rate the need for a total educational program to meet the needs of the individual as an important part of the adult education program. Almost 50 percent of these participants rated this criterion in the upper quartile of the rating scale in Table XIX.

The data in this table revealed the practical nurse enrollees, with a mean response of 8.66, rated this criterion higher than did the other groups in the study. The inexperienced vocational teachers, with a mean response of 7.500, made the lowest rating of this criterion. Only six percent of the forty vocational teachers in this study gave this criterion the top rating on the rating scale.

Number of Course Offerings

Among all of the respondents, the panel of experts tended to rate this criterion, which provides for a large number of offerings in order to provide a choice for the enrollees, higher than did the other participants, according to the responses in Table XX. All of the panel of experts rated this criterion at least seven among the eleven response categories.

The other four groups of respondents had a mean response ranging from 8.819 by the practical nurse enrollees to a low of 7.800 by the

TABLE XVIII

RESPONSE PATTERN TO THE STATEMENT, "ADEQUATE ANCILLARY SERVICES (GUIDANCE, FOLLOW-UP, PLACEMENT, ETC.) ARE PROVIDED"

TYPE OF GROUP	RATING OF CRITERION											TOTAL RESPONSES	CUMULATIVE RESPONSE	MEAN BY GROUP RESPONSE
	Total Number of Respondents by Response Category													
	1	2	3	4	5	6	7	8	9	10	11			
Panel of Experts						1	1	1	1	2	2	8	72	9.000
Practical Nurse Enrollees			4	5	5	10	13	11	17	23	17	105	866	8.246
Area School Adult Enrollees		2	6	9	23	27	34	40	39	31	40	251	1994	7.944
Experienced Vocational Teachers				1	2	2	4	3	4	3	1	20	155	7.750
Inexperienced Vocational Teachers				1	1	1	3	4	4	3	3	20	167	8.350
TOTALS:		2	10	16	31	41	55	59	65	62	63	404	3254	

NOTE: Overall Mean Response = 8.054

TABLE XIX

RESPONSE PATTERN TO THE STATEMENT, "THE DEGREE TO WHICH PROGRAM ACCOMMODATES THE TOTAL EDUCATIONAL NEEDS OF INDIVIDUAL STUDENTS, E.G. BASIC EDUCATION IS PROVIDED IF NEEDED"

TYPE OF GROUP	RATING OF CRITERION											TOTAL RESPONSES	CUMULATIVE RESPONSE	MEAN BY GROUP RESPONSE
	Total Number of Respondents by Response Category													
	1	2	3	4	5	6	7	8	9	10	11			
Panel of Experts						2	1	2	1		2	8	66	8.250
Practical Nurse Enrollees		1	1	2	6	10	13	11	13	18	30	105	909	8.665
Area School Adult Enrollees		1	4	11	22	35	31	39	36	35	37	251	1988	7.920
Experienced Vocational Teachers				1	2	3	1	6	2	3	2	20	157	7.850
Inexperienced Vocational Teachers				2	2	2	3	5	2	3	1	20	150	7.500
TOTALS:		2	5	16	32	52	49	63	54	59	72	404	3270	

NOTE: Overall Mean Response = 8.094

inexperienced vocational teachers. The range within the groups varied from a rating of eleventh in importance of the overall study to a rating as low as twentieth. The overall mean response for this criterion placed it fourteenth among all of the criteria used in the study.

Progress Revealed by Follow-Up Records

The data in Table XXI reveal a preponderance of the respondents in this study felt follow-up records of the students was not one of the most important criteria in determining the effectiveness of adult vocational programs.

The inexperienced vocational teachers tended to rate this criterion as more important than did the other groups. The mean of 8.450 for the inexperienced vocational teachers was the eleventh highest rating of any criterion rated by this group, while the overall mean response of 7.936 was twenty first among the twenty-two listed in the questionnaire. As noted in the table, there was a wide difference of opinion within all of the groups as to the importance of this criterion.

Development of Goals and Objectives

The results, obtained from tabulating the data of the five groups as to their perception of the importance of the teachers and students being cooperatively involved in the development of goals and objectives for their particular program, are revealed in Table XXII. The totals of the respective response categories reveal 272 of the 404 participants rated this criterion nine or above on the eleven-point rating scale in this study.

The panel of experts and both groups of vocational teachers rated

TABLE XX

RESPONSE PATTERN TO THE STATEMENT, "OFFERINGS ARE SUFFICIENT TO PROVIDE STUDENTS
AN OPPORTUNITY TO ENROLL IN DESIRED COURSES"

TYPE OF GROUP	RATING OF CRITERION											TOTAL RESPONSES	CUMULATIVE RESPONSE	MEAN BY GROUP RESPONSE
	Total Number of Respondents by Response Category													
	1	2	3	4	5	6	7	8	9	10	11			
Panel of Experts							1	2	2	1	2	8	73	9.125
Practical Nurse Enrollees			1	1	6	9	9	12	16	29	22	105	926	8.819
Area School Adult Enrollees		1	6	9	12	27	28	35	38	36	59	251	2105	8.386
Experienced Vocational Teachers				1	2	1	2	3	4	3	4	20	168	8.400
Inexperienced Vocational Teachers				2	2	1	3	4	3	3	2	20	156	7.800
TOTALS:		1	7	13	22	38	43	56	63	72	89	404	3428	

NOTE: Overall Mean Response = 8.485

TABLE XXI

RESPONSE PATTERN TO THE STATEMENT, "SUFFICIENT FOLLOW-UP RECORDS ARE KEPT ON ALL STUDENTS TO SHOW JOB ADJUSTMENT OR ADVANCEMENT IN THE OCCUPATION"

TYPE OF GROUP	RATING OF CRITERION											TOTAL RESPONSES	CUMULATIVE RESPONSE	MEAN BY GROUP RESPONSE
	Total Number of Respondents by Response Category													
	1	2	3	4	5	6	7	8	9	10	11			
Panel of Experts					1		1	2	2		2	8	66	8.500
Practical Nurse Enrollees			3	2	6	14	14	18	17	12	19	105	855	8.143
Area School Adult Enrollees		2	6	11	25	36	33	37	38	27	36	251	1942	7.737
Experienced Vocational Teachers				1		2	2	4	2	5	4	20	174	8.700
Inexperienced Vocational Teachers					1	2	2	6	3	3	3	20	169	8.450
TOTALS:		2	9	14	33	54	52	67	62	47	64	404	3206	

NOTE: Overall Mean Response = 7.936

this particular criterion as the second most important criterion listed on the questionnaire, while the overall mean of 8.938 meant an overall rating of fourth by the entire group of participants.

One vocational teacher commented, "The more you work with these adults, the more you realize that they are serious about this training and have definite goals in mind when they enroll in your class."

Summary of Responses by Study Participants

The compilation of responses to the twenty-two criteria by the 404 respondents are compiled and summarized in Table XXIII of this study. A mean response of each criterion by groups, as found in this table, indicates the relative importance of each criterion as perceived by the five responding groups. Also found in this table is an overall mean response to each of the criteria used in the study.

The overall mean response, referred to as the means of all groups in Table XXIII, was used in ranking these criteria as to their importance. There was a tendency, by the panel, to make the highest ratings of any group in the study, whereas, the adult enrolled at the area school had the lowest overall mean response. The panel, with a high mean response of 10.000 and a low mean response of 7.750, had the highest, 8.983, mean response of any group in the study. Whereas, the overall mean response of 8.353 by the area school enrollees was the lowest of any participating group. The area school enrollees and the inexperienced vocational teachers both had an overall mean response lower than the overall mean of 8.483 by the 404 participants interviewed in this study.

The overall mean response by all groups used in determining the rating as to the importance of each criterion will be referred to in the conclusions and recommendations found in Chapter V.

TABLE XXII

RESPONSE PATTERN TO THE STATEMENT, "CLEARLY STATED GOALS AND SPECIFIC OBJECTIVES HAVE BEEN DEVELOPED WHICH GIVE DIRECTION TO THE PROGRAM (DEVELOPED COOPERATIVELY BY STUDENTS AND TEACHER)"

TYPE OF GROUP	RATING OF CRITERION											TOTAL RESPONSES	CUMULATIVE RESPONSE	MEAN BY GROUP RESPONSE
	1	2	3	4	5	6	7	8	9	10	11			
Panel of Experts							1		1	3	3	8	79	9.875
Practical Nurse Enrollees				1	4	10	7	17	11	17	38	105	956	9.105
Area School Adult Enrollees			5	8	12	16	12	31	66	52	49	251	2188	8.717
Experienced Vocational Teachers						1	1	1	2	6	9	20	198	9.900
Inexperienced Vocational Teachers							3	2	3	6	6	20	190	9.500
TOTALS:			5	9	16	27	24	51	83	84	105	404	3611	

NOTE: Overall Mean Response = 8.938

TABLE XXIII

MEAN RESPONSES AND RANK ORDER OF EVALUATIVE CRITERIA BY RESPONDENT GROUPS

MEAN RESPONSES AND RANK BY GROUP											
<u>PANEL OF EXPERTS</u>		<u>PRACTICAL NURSE ENROLLEES</u>		<u>AREA SCHOOL ADULT ENROLLEES</u>		<u>EXPERIENCED VOCATIONAL TEACHERS</u>		<u>INEXPERIENCED VOCATIONAL TEACHERS</u>		<u>ALL RESPONDENTS</u>	
Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
9.500	4	9.219	2	9.187	1	9.750	3	9.250	3	9.233	1
CRITERION: Qualifications of staff, i. e. teacher has had appropriate preparation for the occupation or related area taught.											
10.000	1	9.476	1	8.984	3	10.050	1	9.250	3	9.198	2
CRITERION: Sufficient funds are available for operation of program.											
9.875	2	8.905	8	9.052	2	9.550	4	9.600	1	9.151	3
CRITERION: An increase in knowledge or improvement of skills by those enrolled in program is evidenced in job placement, advancement, increased responsibility, salary increase, and/or improved employer-employee relations.											
9.875	2	9.105	4	8.717	5	9.900	2	9.500	2	8.938	4
CRITERION: Clearly stated goals and specific objectives have been developed which give direction to the program. (Developed cooperatively by students and teachers).											
9.125	9	9.048	5	8.781	4	8.950	9	8.850	5	8.869	5
CRITERION: The course of study provides for sequential development of skills and techniques.											
8.250	19	9.171	3	8.490	10	8.600	15	8.550	9	8.671	6
CRITERION: Instruction is adapted to new advances in methods of teaching and changing technology.											

TABLE XXIII Continued

MEAN RESPONSES AND RANK BY GROUP											
<u>PANEL OF EXPERTS</u>		<u>PRACTICAL NURSE ENROLLEES</u>		<u>AREA SCHOOL ADULT ENROLLEES</u>		<u>EXPERIENCED VOCATIONAL TEACHERS</u>		<u>INEXPERIENCED VOCATIONAL TEACHERS</u>		<u>ALL RESPONDENTS</u>	
Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
9.000	12	8.914	7	8.562	9	8.700	13	8.450	11	8.666	7
CRITERION: Comprehensive curriculum guide and instructional materials are readily available and utilized by both instructor and pupils.											
9.250	5	8.666	13	8.568	8	9.200	7	8.750	7	8.658	8
CRITERION: Class is offered in conveniently located center with adequate facilities and equipment suited to needs of adults wanting to be served.											
9.250	5	8.733	12	8.598	6	8.600	15	8.550	9	8.644	9
CRITERION: Standards of performance are in evidence and adhered to by the instructor.											
9.250	5	8.505	16	8.959	7	9.300	5	8.800	6	8.631	10
CRITERION: Program provides opportunity for the learning needs of varying types of abilities, interests of pupils, and students' work experience.											
9.000	12	8.981	6	8.351	13	8.750	12	8.350	13	8.547	11
CRITERION: Program offering is based on realistic current and projected manpower needs.											
9.250	5	8.633	15	8.462	11	8.900	10	8.050	18	8.525	12
CRITERION: Progress is evaluated on student's performance with completion related to performance as opposed to number of hours completed or length of course.											

TABLE XXIII Continued

MEAN RESPONSES AND RANK BY GROUP											
PANEL OF EXPERTS		PRACTICAL NURSE ENROLLEES		AREA SCHOOL ADULT ENROLLEES		EXPERIENCED VOCATIONAL TEACHERS		INEXPERIENCED VOCATIONAL TEACHERS		ALL RESPONDENTS	
Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
9.125	9	8.848	10	8.275	14	9.300	5	8.650	8	8.510	13
CRITERION: Curriculum structure and content are correlated with placement opportunities in the geographical area.											
9.125	9	8.819	11	8.386	12	8.400	18	7.800	20	8.485	14
CRITERION: Offerings are sufficient to provide students an opportunity to enroll in desired courses.											
8.250	19	8.895	9	8.219	15	8.800	11	8.350	13	8.431	15
CRITERION: Administrator is provided by sponsoring institution with full time responsibility for administering and developing adult vocational programs.											
9.000	12	8.486	17	7.912	19	8.600	15	8.350	13	8.136	16
CRITERION: Follow-up studies are used as a means of evaluating effectiveness of instruction.											
8.375	18	8.266	18	8.048	16	8.150	19	7.850	19	8.106	17
CRITERION: Placement services are available to both employer and adult students.											
8.250	19	8.665	14	7.920	18	7.850	20	7.500	21	8.094	18
CRITERION: The degree to which program accommodates the total educational needs of individual students, e. g. basic education is provided if needed.											

TABLE XXIII Continued

MEAN RESPONSES AND RANK BY GROUP											
PANEL OF EXPERTS		PRACTICAL NURSE ENROLLEES		AREA SCHOOL ADULT ENROLLEES		EXPERIENCED VOCATIONAL TEACHERS		INEXPERIENCED VOCATIONAL TEACHERS		ALL RESPONDENTS	
Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
9.000	12	8.246	19	7.944	17	7.750	21	8.350	13	8.054	19
CRITERION: Adequate ancillary services (guidance, follow-up, placement, etc.) are provided.											
8.625	16	7.838	21	7.847	20	9.000	8	8.250	17	7.938	20
CRITERION: Community resources (people, places, products) are used to enrich curriculum.											
8.500	17	8.143	20	7.737	21	8.700	13	8.450	11	7.936	21
CRITERION: Sufficient follow-up records are kept on all students to show job adjustment or advancement in the occupation.											
7.750	22	7.488	22	7.123	22	7.200	22	6.950	22	7.213	22
CRITERION: Provisions are made for slot-in enrollment during the program.											

CHAPTER V

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

Introduction

Adult education administrators are being consulted more and more by leaders of the community to help solve many of the problems that beset our society. Perhaps, at the time when it is gaining its greatest recognition, adult vocational education is being subjected to the sharpest scrutiny. Specifically, vocational experiences of the adult individual enable him to obtain specific knowledge, acquire or change attitudes and develop particular skills. Whether these experiences are formal classroom instruction, informal meetings, in-service training or workshops, they may be recognized as closely relating to the individual's perception of the effectiveness of any educational program and especially to that of an adult vocational program.

This study was primarily concerned with the development of an instrument that could be used in evaluating adult vocational classes and/or programs offered through the Oklahoma City Public Schools. It was further anticipated that, with proper adjustment, it could well be adapted to usage in the evaluation of adult vocational programs elsewhere. This study was divided into two somewhat different efforts, namely, (1) determining the criteria important in assessing the effectiveness of adult vocational programs, and (2) the determination of the

relative importance of each of these selected criteria as perceived by three divergent groups of participants.

Procedure of Investigation

Eight experienced adult administrators, designated in the study as a panel of experts, selected the twenty-two criteria, Appendix D, they considered as those most important in determining the effectiveness of an adult vocational class or program. This was accomplished via the Delphi technique, as described in Chapter III.

These criteria, so developed, were then rated as to their importance by the panel of experts and 396 adults involved in vocational education programs offered through the Oklahoma City Public School System during the second semester of the 1970-71 school year. Participant patterns in these groups were identified in Chapter V.

Data were collected from the panel of experts by mailing the questionnaire to each member of the panel for his ratings. In order to increase reliability of the data, all of the data from the other four groups of respondents were collected through personal interviews by the investigator. Individuals enrolled in the different classes offering adult vocational education the second semester of 1970-71 school year, as mentioned above, were contacted personally by the investigator in order to explain the purpose of the questionnaire and insure a more uniform interpretation of the criteria. All questionnaires distributed were returned with all of the twenty-two criteria having been rated. The respondents were asked to treat each criterion as a separate entity in the rating of its importance in determining the effectiveness of an adult vocational education program. A rating scale of one to eleven was

used, with the larger the number the greater the importance.

The twenty-two criteria were rated concurrently using the same rating scale, therefore, the data of each table were treated in the same manner. Responses by each individual were recorded within the response categories, then the number responding at each rating was multiplied by the response rating. This process was continued for each rating, then, all of these results were added giving a cumulative number of responses to this particular criterion by this particular group. This cumulative response was divided by the number in the group in order to determine the mean, or average, response of the group to this criterion.

The cumulative responses for each group within the criterion were totaled and divided by 404, total number of respondents in the study, which gave an overall mean response for this particular criterion. The mean response by groups within the criterion and the overall mean response for each criterion were recorded in Table XXIII of this study. These responses were the basis for the conclusions and recommendations found in this chapter.

Findings and Conclusions

Although adult vocational education programs vary in their emphasis and purpose, it was observed by the investigator there are commonalities of objectives that warranted a study to determine criteria that could be used in assessing the effectiveness of an adult vocational program.

This study was limited to a particular population, as described earlier in this chapter, and the biases of these individual participants resulting from their varied experiences. The overall mean response by the 404 participants to each criterion served as an indicator in deter-

mining the importance of a particular criterion in relation to the other criteria of this study.

Recommended criteria, listed in order of importance as determined by the overall mean response of participants in this study, to be used in assessing effectiveness of an adult vocational program, include:

1. Qualifications of staff, i. e., teacher has had appropriate preparation for the occupation or related area taught. (Overall mean response - 9.233)

Adult vocational teachers are recruited from the ranks of secondary programs, college teachers, former teachers and persons in industry. Teachers recruited from secondary schools and colleges have had training and experience in teaching methods for a particular age, so they must adapt these methods to the particular group enrolled, whereas, a person from industry would possibly need more assistance in this area.

Formal classes, workshops, in-service training and conferences are among the many methods being employed to assist adult instructors in improving their teaching. The importance of this criterion, as perceived by the participants, could possibly be summed up in the statement by an area school enrollee, "The teacher may know how to teach, but if the program is to be a success, he must have had experience in his special area in order to know what to teach."

2. Sufficient funds are available for operation of program. (Overall mean response - 9.198)

Most adult vocational programs are financed by federal funds, state funds, local funds and tuition of students and/or a combination of these sources. Due to the lack of commitment for the full funding of adult vocational education, this criterion is one of great concern of those

involved. "Sufficient funds for the complete program is one of the most important prerequisites to the implementation of any adult vocational program," commented one of the panel of experts.

3. An increase in knowledge or improvement of skills by those enrolled in program is evidenced in job placement, increased responsibility, salary increase and/or improved employer-employee relations. (Overall mean response - 9.151)

A majority of the adults enroll in an adult vocational program to improve their skills, develop a new skill and/or increase their knowledge about their work. Evidence of accomplishment can be noted in job placement, advancement of the student in his job, etc. "I received an increase in salary because I am now able to do some jobs that I could not do before I enrolled in this class," remarked an adult enrolled at the area school.

4. Clearly stated goals and specific objectives have been developed which give direction to the program. (Developed cooperatively by students and teacher) (Overall mean response - 8.938)

It is imperative in the development of an adult vocational program to begin with those most concerned - the teacher and the adult student. Students should be provided the opportunity of participating in the development of the curriculum and also in assessing its effectiveness. Students and instructors seemingly have greater faith in an activity or program, and support it more vigorously, when they have been actively involved in their planning. "Objectives of a program should be stated in such specific terms that evidence of the degree to which these objectives have been achieved can be measured," according to an experienced vocational teacher.

5. The course of study provides for sequential development of skills and techniques. (Overall mean response - 8.869)

Most programs, especially vocational programs, are organized to be taught in a sequential manner. The organization of a vocational program in which skills are developed in a sequential manner is most important to a student in that he may have to drop out of the program, yet be able to perform certain jobs at a lower level of competency. At the same time, this type of program organization enables a person to build on previous training. An enrollee in an air conditioning program said, "This is my third program and they have been organized in such a manner that a person can use the training in one program to help him in the next course offered."

6. Instruction is adapted to new advances in methods of teaching and changing technology. (Overall mean response - 8.671)

Recent years have seen a growth in adult vocational education activities that differ markedly from the traditional classroom procedures. Workshops, conferences and on-the-job training are all valuable devices for educating adults. Today, a limited stereotyped program cannot adequately meet the varied and changing interests and needs of adults. "Our teacher makes the class more interesting and meaningful by using different methods of teaching and new type of equipment," was a comment by an area school enrollee in welding.

7. Comprehensive curriculum guide and instructional materials are readily available and utilized by both instructor and pupil. (Overall mean response - 8.666)

The short period of time involved in an adult program makes it imperative that curriculum guides and instructional materials be readily

available. The adult enrolls in a class expecting immediate results, and if this does not occur, he will probably drop out of the program. The high rating of this criterion by the practical nurse enrollees may have been influenced by their highly structured program. As one nurse enrollee commented, "We know what we will be able to do when we finish this program because our instructors follow the curriculum guide as written."

8. Class is offered in conveniently located center with adequate facilities and equipment suited to needs of adults wanting to be served. (Overall mean response - 8.658)

Although adult vocational classes operating in the local secondary school constitute the most prevalent type of public school adult programs, recently there has been a tendency, in some programs, to move out of the high school buildings and take the classes to locations that are better suited to the convenience and habits of those adults wishing to enroll.

9. Standards of performance are in evidence and adhered to by the instructor. (Overall mean response - 8.644)

Maturity of the adults tend to make them more dependent on the leadership of their instructor than in the earlier years of schooling. Continuous effort by the instructor must be maintained in keeping up-to-date with accelerated changes. One adult remarked, "Our teacher sure knows how to teach and he expects us to learn how to do the job as well as a professional."

10. Program provides opportunity for the learning needs of varying types of abilities, interests of pupils, and student work experience. (Overall mean response - 8.631)

The goal of adult vocational education, as perceived by many adult educators, is to provide a useful educational experience for a continuation onward from whatever level at which the adult may have discontinued formal schooling. Adult vocational education must play a leading role in providing learning opportunities for adults at every level possible because this is an area of great interest to these individuals. An earlier comment, "I appreciate being able to do what I want to do in this class and having a teacher that will help me learn to do those things that other members of the class already know how to do," is most appropriate.

11. Program offering is based on realistic current and projected manpower needs. (Overall mean response - 8.547)

Adult vocational offerings should grow out of a bona fide need. When needs are not clearly defined, they should be tested for validity before initiating programs designed to meet these needs. As one vocational teacher commented, "Why spend the money for a program if there isn't any employment opportunities for the trainees."

12. Progress is evaluated on student's performance with completion related to performance as opposed to number of hours completed or length of course. (Overall mean response - 8.525)

This is a new concept being accepted by some adult educators, but possibly will not be accepted by adult enrollees so long as they are expected to pay a sizeable tuition for short time classes. An adult enrolled at the area school remarked, "I think my progress should be evaluated on performance, but I don't aim to quit this program before I finish the 72 hours I paid for."

13. Curriculum structure and content are correlated with placement

opportunities in the geographical area. (Overall mean response - 8.510)

Immediate placement is the natural conclusion of an adult vocational program. The high rating of this criterion by the experienced vocational teachers may have been influenced by their past experience in secondary education of being required to place students on the job. Many enrollees, especially the less fortunate ones, are enrolled in adult vocational programs in order to develop a skill that has immediate value on the local labor market. "I enrolled in this practical nurse program because I was informed the program would prepare me for employment that was available here in Oklahoma City," remarked an enrollee in the practical nurse program.

14. Offerings are sufficient to provide students an opportunity to enroll in desired courses. (Overall mean response - 8.485)

The broadening of the areas of adult education and the increasing diversity of course offerings in adult vocational education appear to be established trends. The importance of this criterion to administrators may be explained in their attempt to serve the masses. As one member of the panel commented, "Course offerings in an adult program should be sufficient to provide all adults the type of training desired."

15. An administrator is provided by the sponsoring institution with full time responsibility for administering and developing adult vocational programs. (Overall mean response - 8.431)

The task of a local administrator is to develop that pattern of support which will give the best possible program of adult vocational education for his community. His main concern is with the problem of developing an adult vocational program based on exceedingly divergent needs of the people to be served. The need for such an individual has

possibly been minimized by the lack of concern, by individuals, for the overall program.

16. Follow-up studies are used as a means of evaluating effectiveness of instruction. (Overall mean response - 8.136)

Assessment of the value of the training received in an adult vocational program largely depends on the subsequent failure or success of trainees on the job. The low rating of this criterion by adult students was possibly influenced by their lack of involvement. One vocational teacher remarked, "The follow-up of our students tells the story of whether or not our program has been effective."

17. Placement services are available to both employer and adult students. (Overall mean response - 8.106)

Placement officers will become increasingly more important as the enrollment in adult education courses increases and unemployment in skill areas becomes more prevalent. In the past, many vocational educators have considered the placement of students a responsibility of the instructor which resulted in a low rating of this criterion.

18. The degree to which program accommodates the total educational needs of individual students, e. g., basic education is provided if needed. (Overall mean response - 8.094)

Adult vocational education should be a continuous learning process conducted within the framework of the sponsoring institution, dedicated to the continuous improvement of both the human personality and technical skills of the individual. Many vocational educators disagree as to their responsibility for the training of an individual in areas other than their specialty area.

19. Adequate ancillary services (guidance, follow-up, placement, etc.) are provided. (Overall mean response - 8.054)

The average American, especially adults, relates his feelings of security to his own ability to be self-sufficient. The educational counselor may be blocked out of the decision-making process by adults because of this cultural drive. Vocational teachers have a tendency to do much of the counseling themselves, whereas, the administrators indicate a preference for a trained professional person. One panel member commented, "Adult vocational education will be a more complete program when we are able to hire qualified vocational counselors and placement officers."

20. Community resources (people, places, products) are used to enrich curriculum. (Overall mean response - 9.938)

It has become increasingly clear that the best source of up-to-date technical information comes from industry. No area of public education is more dependent upon the intercommunication between school personnel and citizens of the community than that of adult vocational education. Many adult vocational programs have been built on a solid foundation of public participation. The low rating of this criterion may be of concern to some vocational educators and should possibly be studied more thoroughly.

21. Sufficient follow-up records are kept on all students to show job adjustment or advancement in the occupation. (Overall mean response - 7.936)

This standard will possibly become of more importance as adult vocational programs grow and are in existence over a longer period of time. Many adult vocational offerings have been short-termed offerings on an

emergency basis, whereas, adult vocational programs planned for a longer period of time on a continuous basis depend upon the results of follow-up studies of their students for the continuation and improvement of their program.

22. Provisions are made for slot-in enrollment during the program.
(Overall mean response - 7.213)

The low rating of this criterion may have been influenced by the strict structure of our formal education. Also, many students were influenced by the short term of their present adult program. As one adult commented, "With only 72 hours in our program, a person just could not complete the program if he started late." In the future, adult vocational programs, planned on a continuous basis, will probably build into their structure provision whereby a student will be able to enroll in the program at any time he desires.

The twenty-two criteria, used in the questionnaire of this study, were perceived as those most important in assessing the effectiveness of an adult vocational program. The panel of experts and the other respondents generally concurred as to the importance of the criteria used in this study.

This study substantiated the interest adults involved in vocational education had in evaluating, updating and improving the adult vocational programs in the Oklahoma City Public Schools. The twenty-two criteria were rated by all of the participants. The high mean response of each criterion revealed its importance, as perceived by the 404 participants, and indicated all of the criteria used in this study should be considered in evaluating the effectiveness of an adult vocational program. However, when using these criteria, one should be cognizant of the differences in group ratings within each criterion.

Recommendations for Further Studies

No one adult vocational education program can be designed that will serve all of the segments of our society; however, many adult educators contend programs must be designed to meet specific objectives that will take cognizance of and have respect for differences in our population.

The results of this study indicate a tendency of the adult vocational population to be somewhat stereotyped in their opinion concerning evaluative criteria of adult vocational programs. The investigator recognizes the generalities of the statements made in these criteria and would recommend further studies be made in the area of evaluating adult vocational programs. Each of the criteria used in this study could be a study within itself. Some suggested studies include: (1) analysis of the factors, e. g., ethnic groups, social groups, unemployment, education, etc., affecting each of the criteria, and (2) a study to develop a set of standards by which criteria could be measured.

The researcher recommends that pilot programs in adult vocational education be evaluated, using the criteria suggested in this study, in order to adapt these criteria for usage in the evaluation of programs elsewhere. It is hoped that this study may be of benefit to others in their search of what can be evaluated in adult vocational programs and what cannot.

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APPENDIX A

January 28, 1971

Dr. Lee W. Ralston, Director
Trade and Industrial Education
Los Angeles County Schools
2112 Linnington Avenue
Los Angeles, California 90025

Dear Lee:

I certainly appreciate your consenting to participate in our study of Adult Education. I am using the Delphi Technique as a means of securing expert convergent opinions without bringing the experts in the field together in face-to-face confrontation. These opinions will be gained through the use of three successive questionnaires and feedback with each round of questions being designed to produce more carefully considered opinions of the participants.

The purpose of this study is to determine if there are common significant factors affecting the quality of Adult Vocational Programs that can be identified and evaluated.

I would like to ask you, as one of eight persons experienced in Adult Education, to make a list of ten or more measurable criteria that are appropriate for determining quality and effectiveness of programs of vocational-technical education participated in by adults, such as placement, etc. The combined list will be sent to each participant for ranking as to importance. After refining, I will make personal interviews with adult students to determine factors affecting the various phases of the program in which they are enrolled.

Again, may I express my appreciation to you for taking the time to participate in this study.

Sincerely,

Si Bowlan, Director
Vocational-Technical Education

SB:ms

APPENDIX B

CRITERIA FOR DETERMINING EFFECTIVENESS OF ADULT
VOCATIONAL-TECHNICAL PROGRAMS

Please rank each item as to your opinion of their importance using a ranking of (1) through (5) with the larger the number the greater the importance. Realizing that by returning criteria from eight different persons we have duplications or near duplications, would you please place a zero in front of any item you feel has been covered more thoroughly in another item?

RANK

1. _____ Clearly stated goals and objectives were developed by participants and instructor.
2. _____ Evidence of flexibility allowing for experimentation in teaching methods and curriculum.
3. _____ Curriculum structure and content correlated with placement opportunities in the geographical area.
4. _____ An increase in knowledge, understanding or skills by adults completing an adult vocational program as evidenced in job placement, advancement, increased responsibility, salary increase, and/or improved employer-employee relations.
5. _____ Community resources (people, places, products) are used to enrich curriculum.
6. _____ Program provides opportunity for the learning needs of varying types of abilities, interests of pupils, and students work experience.
7. _____ Standards of performance are in evidence and adhered to by the instructor.
8. _____ Follow-up studies are used as a means of evaluating effectiveness of instruction.
9. _____ Students are made aware of progress being made as based on a variety of related criteria and suitable techniques of appraisal with information used for guidance and placement purposes.
10. _____ Comprehensive curriculum guide and instructional materials are readily available and utilized by both instructor and pupils.
11. _____ The course of study provides for a sequential development of skills and techniques.
12. _____ Instruction is adapted to new advances in methods of teaching and changing technology.
13. _____ Evidence of interpersonal relationship development, students enjoying class, teacher and student friendly and at ease with

each other.

14. _____ Evidence of futureism of the student, students reading pamphlets and books about vocational or technical education outside of class assignment.
15. _____ Adequate physical facilities. Comfortable classrooms with adequate space, suitable equipment and sufficient supplies.
16. _____ Counseling facilities and services available to adults participating and those desiring to participate in adult occupational training programs.
17. _____ Related courses are offered to supplement occupational skill programs.
18. _____ Personnel provided by sponsoring institution with full time responsibility of administering and developing adult vocational programs.
19. _____ Sufficient funds are available for operation of program.
20. _____ Placement services available to both employer and adult students.
21. _____ Advisory committees are available and used in all phases of the adult vocational program.
22. _____ Provisions are made for slot-in enrollment during the program.
23. _____ Program planning was adequate enough to ensure appropriate programs, i. e., student and community resources were utilized in both the planning and implementation of the program.
24. _____ Occupational programs offered were based on realistic current and projected manpower needs.
25. _____ Qualifications of staff, i. e., special teachers were employed with appropriate preparation for the occupation or related area taught.
26. _____ Progress was evaluated on students' performance basis (formative evaluation) with completion related to performance as opposed to hours completed or length of course.
27. _____ Adults were encouraged to have relevant experiences outside of class, e. g., job, etc. during time they were completing training.
28. _____ Classes were offered in conveniently located centers with adequate facilities and equipment at times suited to needs of adults wanting to be served.
29. _____ Adequate ancillary services (guidance, follow-up, placement,

etc.) were provided.

30. _____ The degree to which program accommodates the total educational needs of individual students, e. g., basic education is provided if needed.
31. _____ Emphasis on traditional, "pet" or "fad" programs that prevent other adults in target population from benefitting from vocational and related training, i. e., program emphasis.
32. _____ Professional teacher preparation, in terms of adult learners, methods, etc. This relates to both pre-service and in-service preparation.
33. _____ Curriculum structure, duration, and content as related to the level of skill or education (entry level, up-grading technical) desired by employees of business, industry, or service organizations.
34. _____ Evaluation by employers, comparing the improvement of skills by adults completing adult education programs relating to their present occupation.
35. _____ Percentage of adults completing adult vocational courses in which they were enrolled.
36. _____ Placement record of adults completing specific occupational training programs.
37. _____ Demand by adults for particular "on going" adult education programs.
38. _____ Institution provides a placement officer or program to assist graduates of the comprehensive programs.
39. _____ Promotional methods and materials are used for advising adults of opportunities for participation in a comprehensive adult program.
40. _____ Adult teacher has had special training or orientation to equip them for teaching adult occupational programs.
41. _____ Sponsoring institution has made definite commitments (budgetary) for support of adult occupational training programs.
42. _____ Offerings are sufficient to provide students an opportunity to enroll in desired courses.
43. _____ Sponsoring institution provides testing program to assist persons in choosing program in which he has the greatest opportunity of succeeding.
44. _____ Knowledge and skills essential to job placement and performance were attained through adult program.

45. _____ Job placement was consistent with program objectives.
46. _____ Student's change in ability enables him to assume responsibility for own learning.
47. _____ Participant's perception of value of learning experiences were enhanced.
48. _____ The content of the course was determined by occupational needs.
49. _____ Sufficient follow-up records are kept on all students to show job adjustment or advancement in the occupation.
50. _____ Student recruitment methods supply sufficient students who possess proper background.
51. _____ Sufficient counseling and guidance is available to maintain maximum retention of students.
52. _____ Sufficient contact is made with (including advisory committees) organizations in the community to assess the vocational training needs and these needs are translated into programs.
53. _____ Clearly stated goals and specific objectives have been developed which give direction to the program.

APPENDIX C

CRITERIA FOR DETERMINING EFFECTIVENESS OF ADULT
VOCATIONAL-TECHNICAL PROGRAMS

Mean ranking of criteria selected by the panel of adult education administrators. Do you agree within 1.00 of this rating on a maximum of 5.00? If not, or if you have additional comments, please write in space provided at the end of questionnaire.

RANK

1. 3.250 Curriculum structure and content are correlated with placement opportunities in the geographical area.
2. 4.375 An increase in knowledge, understanding or skills by adults completing an adult vocational program is evidenced in job placement, advancement, increased responsibility, salary increase, and/or improved employer-employee relations.
3. 3.375 Community resources (people, places, products) are used to enrich curriculum.
4. 3.500 Program provides opportunity for the learning needs of varying types of abilities, interests of pupils, and students' work experience.
5. 3.625 Standards of performance are in evidence and adhered to by the instructor.
6. 3.500 Follow-up studies are used as a means of evaluating effectiveness of instruction.
7. 3.750 Comprehensive curriculum guide and instructional materials are readily available and utilized by both instructor and pupils.
8. 3.375 The course of study provides for a sequential development of skills and techniques.
9. 2.625 Instruction is adapted to new advanced in methods of teaching and changing technology.
10. 3.125 Administrator provided by sponsoring institution with full time responsibility for administering and developing adult vocational programs.
11. 4.125 Sufficient funds are available for operation of program.
12. 3.325 Placement services are available to both employer and adult students.
13. 2.750 Provisions are made for slot-in enrollment during the program.
14. 3.000 Occupational programs offered are based on realistic current and projected manpower needs.

APPENDIX D

CRITERIA FOR DETERMINING EFFECTIVENESS OF ADULT
VOCATIONAL-TECHNICAL PROGRAMS

The following criteria have been selected by a panel of adult education administrators as those important in "Determining Effectiveness of Adult Vocational-Technical Education Programs." Please rate each item individually as to your opinion of their importance using a rating of (1) through (11) with the larger the number the greater the importance.

ITEM RATING

1. _____ Curriculum structure and content are correlated with placement opportunities in the geographical area.
2. _____ An increase in knowledge or improvement of skills by those enrolled in program as evidenced in job placement, advancement, increased responsibility, salary increase, and/or employer-employee relations.
3. _____ Community resources (people, places, products) are used to enrich curriculum.
4. _____ Program provides opportunity for the learning needs of varying types of abilities, interest of pupils, and students' work experience.
5. _____ Standards of performance are in evidence and adhered to by the instructor.
6. _____ Follow-up studies are used as a means of evaluating effectiveness of instruction.
7. _____ Comprehensive curriculum guide and instructional materials are readily available and utilized by both instructor and pupils.
8. _____ The course of study provides for a sequential development of skills and techniques.
9. _____ Instruction is adapted to new advances in methods of teaching and changing technology.
10. _____ Administrator is provided by sponsoring institution with full time responsibility for administering and developing adult vocational programs.
11. _____ Sufficient funds are available for operation of program.
12. _____ Placement services are available to both employer and adult students.
13. _____ Provisions are made for slot-in enrollment during the program.
14. _____ Program offering is based on realistic current and projected manpower needs.

VITA ~

Sizemore Bowlan

Candidate for the Degree of

Doctor of Education

Thesis: AN EVALUATION OF SELECTED CRITERIA FOR ASSESSING THE EFFECTIVENESS OF ADULT VOCATIONAL EDUCATION IN THE OKLAHOMA CITY PUBLIC SCHOOLS AS PERCEIVED BY THREE RESPONDENT GROUPS

Major Field: Vocational-Technical and Career Education

Biographical:

Personal Data: Born at Noble, Oklahoma, November 4, 1920, the son of David W. and Martha L. Bowlan.

Education: Graduated from Norman High School in Norman, Oklahoma, in 1937; received the Bachelor of Science degree in Agricultural Education from Oklahoma State University in Stillwater, Oklahoma, in June 1941; received the Master of Science degree from Oklahoma State University in Stillwater, Oklahoma, in July, 1951; completed requirements for the Doctor of Education degree at Oklahoma State University in July, 1971.

Professional Experience: Served as Vocational Agriculture Instructor at Excelsior High School, 1941-43; Vocational Agriculture Instructor in Lindsay, Oklahoma, 1943-44; Vocational Agriculture Instructor at Moore, Oklahoma, 1944-46; Vocational Agriculture Instructor at Noble, Oklahoma, 1946-52; Vocational Agriculture Instructor at John Marshall High School in Oklahoma City, Oklahoma, 1952-63; Assistant Principal at Star Spencer High School in Oklahoma City, 1963-66; Director of the Oklahoma City Area Vocational-Technical School, 1966-68; Director of Vocational-Technical and Continuing Education in the Oklahoma City Public Schools, 1968-71.

Professional Organizations: American Vocational Association, Oklahoma Vocational Association, Oklahoma Education Association, National Association Secondary Principals, Oklahoma Association Secondary School Principals, National Council of Local Administrators, Oklahoma Council of Local Administrators, National Technical Society, Oklahoma Technical Society, Phi Delta Kappa, State Advisory Council for Vocational Education.