# THE EFFECT OF GRANTING COLLEGE CREDIT FOR OCCUPATIONAL EXPERIENCE UPON RECRUITMENT AND RETENTION OF TRADE AND INDUSTRIAL TEACHERS IN OKLAHOMA

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# CHAPTER I

## INTRODUCTION

Vocational-technical education is being recognized today as one of the most significant segments of American education. Enrollments in trade and industrial education increased from 1,087,000 in 1965 to 1,900,000 in 1970. Trade and industrial education at the post-secondary level more than doubled, with adult education increasing by 100,000 enrollees during the five-year period from 1965 to 1970, basically as a result of the fundings made available by the Vocational Education Act of 1963.

A recent document published by the U. S. Department of Health, Education, and Welfare (1971) combined the above data with the fact that the fundings from the Vocational Education Amendments of 1968 became available in the latter part of 1970 to make the following projections for 1975: 2,364,000 students will be enrolled in trade and industrial programs by 1975, increasing the number of teaching positions from approximately 57,000 to 74,000 (a 23 per cent increase).

Oklahoma's trade and industrial education growth has closely paralleled the national trend, with the development of area vocational-technical schools from 1963 until the present time adding to the problems of recruitment and retention of teachers. The state leadership of trade and industrial education began to recognize the magnitude of the problem when, as early as 1966, they were confronted with

shortages of certified day trade teachers to meet the demand of increasing offerings in vocational-technical areas within the existing comprehensive schools and for the new area schools. The results of the renewed interest in trade and industrial education in Oklahoma may be partly summed up with the following demographic facts: By 1971, 16 of 21 proposed area vocational-technical schools had been built, with the number of trade and industrial teachers increasing from 228 in 1965 to 433 in 1972.

The philosophy and goals of trade and industrial education in the secondary schools are traditionally such that the education received prepares the students for job entry upon completion of studies and training. Direct occupational entry tends to break all regular lines of teacher recruitment from colleges for high school teaching. Furthermore, certain vocational education subjects are not offered as college courses, because college training is not necessary for success in them. This creates a situation wherein occupational competency can only be acquired through the pre-vocational offerings in secondary schools or non-college credit vocational-technical schools and on-the-job experiences. Thus, sufficient mastery of subject content and skills for teaching is usually derived from several years of successful employment experience. Following the generally accepted belief that all teachers must have a level of competency higher than what they will be expected to teach their students means that recruitment of trade and industrial teachers must be directly from the industrial occupations they will be teaching.

All vocational teachers in Oklahoma must have occupational experience prior to certification. Furthermore, all vocational teachers

in Oklahoma are required to have a baccalaureate degree for certification. Exception is made for trade and industrial teachers who may begin teaching without a degree but must pursue a degree at the rate of eight college hours per year to maintain a temporary teaching certificate.

Confronted with shortages of trade and industrial teachers for certain areas as early as 1966, The State Supervisor of Trade and Industrial Education, requested Oklahoma State University College of Education to establish a means of granting college credit to trade and industrial teachers for occupational experience acquired prior to becoming secondary vocational teachers. The request for credit for experience was based on a belief that this inducement would encourage non-degree teachers to put forth more effort to reach the degree status, and that it would also serve as inducement for recruiting new teachers with a high level of industrial skills.

The department of Trade and Industrial Education promptly proposed a method of granting up to 24 college credit hours for occupational experience by a validation examination. The plan was approved by the Oklahoma State University Board of Regents in 1968. Since that time, 105 trade and industrial teachers have successfully completed an occupational experience validation examination in Oklahoma.

## Statement of the Problem

The need to staff trade and industrial programs has been exceeding the capacity of teacher education institutions to meet the demand with degree teachers who have the necessary occupational experience. Therefore, Oklahoma State University has been attempting to help

non-degree teachers reach degree status faster and remain in teaching as a result of receiving credit for their occupational experience.

The problem was the lack of information about how well the program of granting college credit for occupational experience was serving the professional needs of non-degree teachers in Oklahoma in relation to recruitment and retention and the lack of information concerning needs for improvement and expansion of this program or for adoption of other innovative programs. The lack of descriptive information about the non-degree skilled craftsmen who become teachers and how they relate to professional requirements imposed thereby is a key facet of consideration for this investigation.

## Purpose

The purpose of this study was to describe the employment patterns of the trade and industrial teacher for the school years 1967-68 through 1972-73 and their relationship to the use of granting college credit for occupational experience as an instrument of recruitment and retention of non-degree trade and industrial teachers.

Perhaps this purpose can be indicated more clearly by the following questions which it sought to answer:

1. To what extent have the non-degree trade and industrial teachers utilized the validation examination for personal and professional fulfillment?

    a. How many have received their baccalaureat degrees?

    b. How many have pursued graduate work?

2. What has been the growth in total numbers of trade and industrial programs in Oklahoma?

3. How many teachers entered trade and industrial teaching without a baccalaureate degree during this period?

4. How many entered trade and industrial teaching with a baccalaureate degree during this period?

5. What has been the dropout rate of degree teachers compared to the dropout rate of non-degree teachers?

6. Is there a difference in the retention of non-degree teachers who have utilized the validation college credit examination for occupational experience and those who did not use it?

7. In the opinion of those who took the examination for validated college credit:

a. Where and from whom did they learn of the opportunity to use credit for occupational experience?

b. Did they feel this credit possibility was an important influence in their deciding to become trade and industrial teachers?

c. Did they feel it was an important influence in their retention as trade and industrial teachers after they entered the profession?

d. What factors other than this credit influenced them to become trade and industrial teachers?

e. What factors have caused or would cause them to drop out of the teaching profession?

f. What other factors would influence recruitment and retention of trade and industrial teachers?

## Need for the Study

The tremendous growth in trade and industrial education in the

past decade has caused administrators and teacher educators to take a closer look at recruitment, selection, and developmental programs for trade and industrial teachers. As was pointed out in the final report from the Institute on the Recruitment, Selection, and Training of Teachers of Trade and Industrial Education (1969), schools must "vie with industry" for the type of person both need for positions of leadership, and although both recruit in the same population field, schools must do so with certain handicaps. One handicap is that schools are often forced to match financial rewards given in industry with intrinsic rewards in the teaching profession.

One such intrinsic reward has been to help the non-degree teacher reach degree status faster by allowing him to receive college credit for his vast amount of occupational experience. The question arises as to what extent the competency examination program is helping fulfill the individual teacher's aspirations.

One of the questions asked by Fagan (1969) in his conclusions to the National Trade and Industrial Education Seminar on Certification was "to what extent do teacher certification requirements and teacher education programs conform to the education and other growth aspirations of teachers?" In the literature surveyed, this question has usually been answered by supervisors and teacher educators <u>for</u> the non-degree teachers. It has been assumed the wisdom of experience had provided the correct course of action, and, in this respect, studies were designed to substantiate supervisor and teacher educator actions. The intent of this present study was to reveal any significant needs for improvements that have been overlooked due to the lack of non-degree teachers' point of view or to changing circumstances.

The need for this study, therefore, is a result of the requirement for more direct information about the employment patterns of trade and industrial teachers and information from the non-degree teachers regarding their needs relating to the relatively new program of granting college credit for occupational experience with the results providing numerable implications for expansion, extension, and upgrading of such practices for future developments in trade and industrial teacher education programs.

## Scope of the Problem

This study included data on all certified trade and industrial teachers in Oklahoma from September 1, 1967 through May 31, 1972-73 school years for the employment patterns of degree and non-degree teachers. The questionnaires regarding teachers' views on the examination and other factors confronted by non-degree teachers in meeting certification requirements were mailed to these 105 non-degree teachers in Oklahoma who had taken the competency examination for occupational experience.

The 105 people constituting the total population using this special college credit from 1968 to the present date of the study were located in area vocational-technical schools, comprehensive secondary schools, post-secondary programs, and some had returned to industry. Twenty different trade and industrial disciplines were represented in the population, with the teachers coming from schools located in all major sections of Oklahoma.

## Assumptions

The design of this study was based upon three major assumptions:

1. It was assumed that the 105 trade and industrial teachers have had sufficient experiences to enable them to have unique insights into the special needs of non-degree teachers.

2. It was assumed, also, that the 105 people studied will be representative of other non-degree teachers in respect to the questions asked about recruitment, and personal aspirations for usefulness in future trade and industrial teacher selection.

3. An additional assumption of this study was that those individuals selected for the survey responded deliberately and in sincerity to the questionnaire items.

## Definitions

Area Vocational-Technical School--A school or program involving a large geographical territory usually including more than one local basic administrative unit. It offers specialized training to high school students who are preparing to enter the labor market. It also provides vocational or technical education to persons who have completed or left high school and are available for full-time study.

Extension Class--Class instruction given for the purpose of increasing or extending skill and knowledge in the occupation in which one is engaged, usually on the adult level.

Gainful Employment--Employment in a recognized or new and emerging occupation for which persons normally receive in cash or in kind wage, salary, fee or profit. This term includes employment in sheltered workshops for handicapped persons.

General Education Program--A secondary school, junior college, or adult education program of studies designed primarily to assist pupils with the common activities of citizenship, work, and family life through a variety of electives. This is contrasted with specialized education which prepared for an occupation.

Guidance (Vocational)--The process of assisting individuals to understand their capability and interests; choose a suitable vocation; and prepare for, enter, and make successful progress in that vocation.

Industrial Education--A generic term applying to all types of education related to industry including industrial arts education, vocational industrial education (trade and industrial education) and much technical education.

In-service Training for Teachers--An educational process that includes those policies, plans and procedures in which professionally related needs and tasks serve as the basis for the educational program of employed teachers--the program(s) should serve both the educational development of the teacher and the advancement of education.

Occupation--A term referring to a person's regular work, business, or means of earning a living.

Occupational Competence--The skills, understandings, and appreciations needed for successful employment in a specific occupation or cluster of closely related occupations.

Occupational Experience--Vocational instruction which is aimed at furthering the development of vocational competencies through actual employment as a source of learning.

Pre-employment Training--Instruction and practice in the skills and principles of an occupation or payroll job, given to persons before their placement on a job.

State Board for Vocational and Technical Education--Designated or created by state law as the sole agency responsible for the administration of vocational education, or for supervision of the administration by local educational agencies (also referred to as State Department).

Supervisor--The professional person responsible for the promotion, development, maintenance, and improvement of instruction in a given field and over a given area. Supervisors may operate at the local, district, or state level, and much of their work is concerned with in-service training for vocational teachers.

Teacher Certification--Granted after the minimum academic, professional, and other standards established by state departments of education are met by those who wish to teach full or part-time in the public school system.

Teacher Educator (Teacher Trainer)--A professional person in the field of education responsible for the preparatory and in-service training of teachers.

Trade and Industrial Education--Instruction planned to develop basic manipulative skills, safety practices, judgment, technical knowledge, and related occupational information for the purpose of fitting persons for initial employment in industrial occupations or upgrading and retraining workers already employed in industry. T & I will often be used to refer to trade and industrial education throughout the remainder of this study.

Trade Competency Exam: A trade test given to skilled workers to see if they meet minimum qualifications as to knowledge and skill to teach their specialization (also called occupational competency testing program). Trade competency tests are used to validate college credit for various years of industrial experience by several institutions of higher education.

# CHAPTER II

## REVIEW OF THE LITERATURE

The overall purpose of this study was to describe the employment patterns of the trade and industrial teachers for the school years 1967-68 through 1972-73 and their relationship to the use of granting college credit for occupational experience as an instrument of recruitment and retention of non-degree trade and industrial teachers. The study was focused around some common elements which all non-degree teachers share in this state, such as standard certification and degree status being a state requirement for all teachers, with special provisions made for only trade and industrial teachers, which can be attributed to our changing ideals, values, and needs of late-twentieth century vocational-technical education in America.

This chapter gives an overview of the need to examine some of our programs in trade and industrial teacher education with respect to competencies necessary for successful teacher performance.

### Need for Vocational-Technical Education

The nation is becoming vitally aware of vocational-technical education, as can be observed by viewing enrollment statistics over the past five years. Trade and industrial education enrollment figures from a 1971 government publication of the U. S. Department of Health, Education, and Welfare shows an increase from 1,087,000 in 1965 to

1,900,000 in 1970 with a projected figure of 2,364,000 by 1975.

With the developing of "Career Education" as the "in" thing in the United States today, one can surmise that occupationally oriented classes such as trade and industrial education, offering the goal of immediate employment upon graduation, will continue to grow in popularity.

The recent government publication, Career Education, 1971, quotes Commissioner Marland as stating that "career education will eliminate the artificial separation between things academic and things vocational." The commissioner went on to observe that:

> Educators must be bent on preparing students either to become properly and usefully employed immediately upon graduation from high school or to go on to further formal education. The student should be equipped occupationally, academically, and emotionally to spin off from the system at whatever point he chooses--whether at age 12 as a craftsman apprentice, or age 30 as a surgeon, or age 60 as a newly trained practical nurse.

The idea of career education having two major implications for trade and industrial teachers in the future was pointed out by Feirer (1972) in his editorial. One implication is that if one teaches industrial education, he is already involved in career education and will remain in the mainstream of the new emphasis. Secondly, efforts will be made to enlarge or modify some programs, meaning that with a narrow field of specialization persons may not fill the bill as trade and industrial teachers in the future without special training industrially or educationally.

The editor of Technical Education News magazine also predicts vast changes due to the educational reforms of the 1970's. Armond Irwin (1972) states that:

> Although the immediate goal of career education is to influence changes in the programs of public elementary and secondary schools, the eventual outcome will have significant implications for post-secondary education as well.

Careers of a technical nature may begin with an interest in a high school trade and industrial class and continue in the junior colleges and community colleges.

This great emphasis on vocational-technical education would indeed be grossly unjust if only educators and students were interested in them; for the success of any career education program, there must be careers awaiting the graduates. According to the Occupational Outlook Handbook, 1972-73 edition, from the U. S. Department of Labor Statistics, jobs will be available for the graduates, especially in the trade and industrial education areas. The following summations from the report will help exemplify the needs for trade and industrial education.

The 27.8 million blue collar workers, skilled, semiskilled, and unskilled, employed in 1970 make up one-third of the nation's employed workers. Employment trends for the two groups served by trade and industrial education are expected to increase by 215,000 new skilled workers per year and 320,000 semiskilled openings per year during the 1970's. The document went on to state that while many young persons move from one semiskilled job to another and, over a period of years, acquire knowledge and skills sufficient to make them skilled workers, others begin learning a skilled trade in vocational or technical schools and move directly into jobs qualified as skilled workers with a minimum of on-the-job training.

## The Need for Professional Personnel in Trade and Industrial Education

Reflecting further on some of the above-stated needs, values, and ideals for vocational-technical education, one can see that educational requirements for trade and industrial teachers have changed not only in numbers needed to staff the program as specified in the preceding chapter, but in personal qualifications which have become broader and deeper.

Schaefer (1963) called attention to some of the value changes and new ideals when he wrote that mid-twentieth century T & I needs a new breed of teacher. He quoted Vezzani (1953) as earlier having taken quite a buffeting for some of the new values when he stated:

> There is general agreement that trade teachers should be masters of the trade they teach. However, can we be assured that merely because a person has spent a specified number of years working in a trade, he is, therefore, a master of his craft?--Surely, it would be an error to conclude that the mastery of anything depends exclusively on the number of years spent on it.

Questions of this nature have led to competency testing having more widespread usage for certification purposes in trade and industrial education.

Schaefer (1963) also pointed out the growing belief that depth comes from degree acquisition when he summed up his article with this statement:

> All in all, any attempt to produce a new breed of vocational industrial educator must provide opportunities to develop and demonstrate competencies at an earlier age than offered most of us who make up the present generation. The new breed must be associated with at least a baccalaureate degree in which would be included ample depth in subject knowledge and skill . . . . This does not mean doing away with our present method of developing teachers

> but adding other tracks that prove to be equally, or even more, effective in meeting the high standards and far-reaching goals set for vocational trade and industrial education.

Feirer (1968) pointed out that the experience of vocational industrial teachers must not be too narrowly specialized and that it must also be up-to-date. He further pointed out the need for more realistic trade competency examinations to be developed and for teacher educators and certifying agencies to re-evaluate requirements and take more realistic measures in their teacher recruitment and preparation programs.

Swanson and Kramer (1965), in their consideration of professional training of all vocational teachers, contended:

> Just as there is a need for a more comprehensive program for the preparation of individuals to enter the labor force, so it follows that the preparation for the vocational teacher must be more rigorous and often quite different from those now provided. Collegiate preparations of vocational teachers--earlier thought by many to be somewhat inconsistent with the basic vocational education philosophy--is becoming more and more accepted as logical and necessary. This is not to suggest that the vocational education teacher's need for successful work experience in the occupation in which he will be teaching is considered to be any less important.

A survey by Lauda (1966) reveals that the practice of granting college credit for occupational experience has been used by some states for more than fifty years. Out of 201 teacher training institutions surveyed by Lauda, 49 (24 per cent) were presently granting college credit, and 39 others voiced their desire to adopt the practice. Every institution which has started the program has used it as a continuous policy.

Larson and Crain (1969) surveyed the 50 states and three United States provinces to determine utilization of competency examinations in

vocational-technical education and reported that 16 states were using this type of examination for certification, with 12 of the states granting college credit for successful scores. Seven states planned to adopt the program within two years, but 23 states did not plan to use competency tests.

In order to develop better competency examinations for the state of Michigan, Kazanas and Kieft (1966) studied the present status of competency tests and education requirements for T & I teachers according to 39 State Plans for Vocational Education. Of 34 State Plans showing certification requirements for trade and industrial teachers, one state required eighth grade education, 26 stated high school or equivalent education was required. Eight required college baccalaureate degrees, six required state teaching certificates, 20 required pre-employment professional education courses, and 14 required post-employment professional education courses.

The above facts were listed to point out the great diversity existing in certification standards throughout the United States--not to criticize, but to exemplify the different values held by people in leadership roles in vocational-technical education. Kazanas and Kieft's study went on to point out that competency examinations, if used at all, were usually given as a pre-requisite for certification, although some were given, under special conditions, for determining occupational competency or deficiencies and for determining the number of college credit hours to be given a candidate for his work experience. The report quoted various comments made by state directors about the uses of competency tests which Kazanas and Kieft summed up in the following quotation:

> Competency or trade tests can be a part of a balanced certification program and may be used to assist in determining the extent and quality of trade knowledge in both theory and practice. However, some work experience is still considered important to join the necessary trade knowledge and skills. No other specific procedures were mentioned where such knowledge and experience might be obtained.

Even though there are differences in beliefs about educational requirement and amount of work experience required, one fact which remains constant is that some work experience is absolutely essential.

## Recruitment Problems in Trade and Industrial Education

Recruitment is no small task for administrators of trade and industrial education.

State requirements for work experience, added to the certification requirements for specific educational courses leading to the bachelor's degree (in Oklahoma and some other states), tends to complicate usual methods of teacher selection and training.

O'Brian and Schaefer (1966) stated in their report to the National Research Planning Conference for Trade and Industrial Teacher Education that:

> There have been few attempts to study the problem of T & I teacher recruitment. Typically, the problem has been taken for granted.

Grant Venn (1964) stated:

> One of the greatest handicaps to the improvement and expansion of vocational and technical education is the desperate shortage of qualified teachers and administrators . . . ultimately, vocational and technical education will be as good as those who teach it, and the preparation and continuing up-dating of teachers for it must become the responsibility of colleges and universities with experiences in teacher education.

Vezzani (1965) feels that the vocational teacher is the forgotten individual in our recent legislation pertaining to the preparation of persons for the world of work.

Schaefer (1963) has referred to the dilemma of recruiting competent T & I teachers. He states that we are using solutions based on yesterday's technology while we need recruitment policies based on today's needs.

Although over a decade old, the Mellmon study (1957) is still a benchmark with respect to an effective recruitment program for T & I teachers. Techniques reported in this survey have been used by state supervisors and teacher educators with some degree of success for the past 15 years. Nevertheless, the problem of recruitment was still acute enough to merit an Institute on the Recruitment, Selection, and Training of Teachers of Trade and Industrial Education (1969). The objectives of the institute were:

1. To present current and emerging concepts related to recruitment, selection, and training of trade and industrial teachers.

2. To identify those procedures that result in an effective program of teacher recruitment.

3. To identify effective selection criteria for obtaining persons with extensive potentialities for trade and industrial teachers.

4. To develop a guide for selecting teachers.

5. To develop guidelines for the effective preparation of teachers.

6. To increase the ability of state and local directors, supervisors, and teacher educators to make use of guides for recruitment, selection, and preparing trade and industrial teachers.

Results of the conference seem to simply restate the "best" practices used in many states with some stress being placed upon in-service classes as aiding the retention of teachers, especially with extension credit allowing them to raise their positions on the salary scale. It was revealed that the administrators and teacher educators favored an in-service program leading to a bachelor's degree. It was also reported that the amount of credit for competency tests should be left up to individual institutions, but competency tests were recognized and accepted as a means for: (1) screening applicants; (2) certifying teachers; and (3) granting credit for in-service teachers by different institutions.

As reported by Gubast (1967) and others, there are several subject areas of trade and industrial education wherein recruitment from colleges and technical institutes would be impossible because these skill and technical courses are not offered. It follows then, that for teachers to receive degrees in these subjects would be most difficult without some means of granting credit for the expert proficiency these skilled people have gained in their individual pursuits.

According to Roney (1972):

> Perhaps the most serious deficiency of an academic educational system is its inability to accommodate students with a wide range of abilities and interest . . . . We will surely fail those who need education most if we persist in requiring students to meet unrealistic entrance requirements unsuited to their interests and abilities.

This statement raises several interesting questions for investigation.

What are some of the interests of these skilled craftsmen-turned-teacher? What aspirations did these people have when they chose to become teachers? What competencies or abilities are necessary for success as a T & I teacher? Are prospective teachers informed about

credit for skill competency from their occupational experience when recruited?

## Teacher Competencies in Trade and Industrial Education

Most leaders in the field of trade and industrial education agree that first and foremost a T & I teacher must possess certain trade skills and technical knowledges. Said skills must be enhanced and broadened with some occupational experience in the specific field to be taught.

Kynard (1964) developed a "checklist" to be used by administrators who had to evaluate work experience for prospective T & I teachers. Although subjective in nature, it did establish some criteria which enabled logical selections to be made by recruiting agencies.

Secondly, agreement is strong among the leaders that T & I teachers must possess certain pedagogical competencies to be effective.

The research study by Walsh (1960) has become the benchmark for identifying teacher competencies which must be developed by teacher training institutions if the T & I teacher does not already possess them. A list of 107 teacher competencies was appraised as being valid, with a high degree of agreement among the teachers, teacher educators, and supervisors of trade and industrial education sampled in this research.

Competency categories identified by Walsh and described as essential to teachers of trade and industrial subjetcs relate to:

1. Orientation to public education.
2. Interpersonal and group relations.
3. Understanding the student and the learning situation.
4. Developing functional curriculums.
5. Selecting, developing, and using instructional materials.
6. Teacher methods.
7. Shop and classroom organization and management.

In addressing the Institute on Recruitment, Selection and Training of Trade and Industrial Teachers, Grote (1969) identified nine basic traits for successful T & I teachers. He stated that a successful teacher must be: committed, professional, compassionate, systematic, gregarious, articulate, flexible, zealous, and religious. Each of the above categories were subdivided into specific behaviors for subjective evaluation. Grote concluded by stating that it is recognized that no mortal man is perfect, and that one should not expect to find prospective faculty that possess all the above qualifications. However, a teacher who does not possess the nine traits listed above at some level of magnitude is a "poor risk" as a professional teacher.

At this point in the literature review, the search was focused on determining certification requirements as they relate to the values and ideals of trade and industrial education.

Since this research is dealing specifically with Oklahoma teachers, the exact requirements for Oklahoma teachers were stated. However, innovative ideas discovered in the research were intended to have national significance for programs of similar nature.

## Plan for Certifying Day-Trade Teachers in Oklahoma

According to the 1972-73 Operations and Procedures Manual from the State Department of Vocational and Technical Education, a day-trade teacher of trade and industrial education shall have graduated from an accredited high school. He shall have two years of journeyman industrial experience in the trade to be taught.

Non-degree teachers shall be required to complete eight semester credit hours annually towards a degree. The required 16 credit hours of professional trade and industrial education should be completed first.

Degree teachers must have completed the required 16 semester credit hours of industrial education courses or pursue a minimum of four credit hours annually until they have been completed.

The professional course will include the following:

OAED 3113 History and Philosophy of Industrial Education

OAED 3012 Analysis Techniques in Industrial Education

OAED 4103 Methods of Teaching Industrial Education

OAED 4213 Organization and Management of School Shop

OAED 4343 Instructional Planning

Two credit hours of elective industrial education courses will be taken from the following:

OAED 3212 School Shop Safety

TIED 4222 Job Training Procedures

TIED 5552 School Industry Relations

TIED 5662 Conference Leading

TIED 4110 Trade Technical Education

TIED 5150 Supervision of Vocational Education

The following Teacher Education courses are also required of all secondary teachers in Oklahoma:

EDUC 2113 Schools in American Society

ED PSYCH 4223 or ED PSYCH 3213

OAED 4470 (six hours) Student Teaching

TECED 4112 or EDUC 4112 Audio Visual Education

Teachers of day trades such as cosmetology, barbering, etc., must meet their state association requirements for a license as well as a teaching certificate.

Five-year standard vocational teaching certificates may be issued with the completion of the bachelor's degree in trade and industrial education. The certificate must be renewed by attending and participating each year in the approved state department and university workshops, conferences, and meetings.

The specific required courses listed above total 33 hours. The non-degree T & I teacher will be required the usual minimum 50 credit hours of general education for a bachelor's degree, and he may receive 24 credit hours by passing trade competency examinations. This leaves a total of 19 elective credit hours to complete the bachelor's degree.

A question raised by reviewing the literature is: Should more than 24 credit hours be given for the trade competency examination? The range of college credit given, as discovered in research reports available, is from 12 credit hours at Rutgers to 48 credit hours at Oregon State. The mean is equivalent to 32 semester hours credit. The mode is 30 semester hours (Larson and Crain, 1969).

And while there is much said about the kinds of competency tests given, the number of states using and not using them, there appears to be very little research about the teachers who have taken them and about their reasons for taking them, whether to fulfill requirements or personal aspirations. A portion of this study was devoted to the gathering and recording of follow-up information which may be useful in up-grading and using competency tests in the future.

## Higher Education Readiness for Trade and Industrial Education Innovations

It is one thing for a research to reveal a particular need for change and quite another to find institutions ready and willing to initiate the findings. Such may be the case with this and other studies relating to academic degree structure innovations. However, there is evidence that higher education institutions may be on the threshold of some radical reforms. For example, the Carnegie Commission on Higher Education has been engaged in two specific surveys which have suggested some needed reforms.

Less Time More Options, 1971, lists five specific possibilities for improvement as quoted below:

"In this report we are proposing modifications in the structure of post-secondary education in these directions:

1. To shorten the length of time in formal education we are convinced that the time spent on the way to the B.S. degree can be reduced now by one year for many, and subsequently most, students; time spent on the way to the Ph.D. and to M. D. practice can be reduced by an additional one or two years without sacrificing educational quality.

2. To provide more options we favor more opportunities in lieu of formal college and more stages at which college-going students can change direction, stop out to obtain a noncollege experience, and drop in with formal recognition for work accomplished.

3. To make educational opportunities more appropriate to lifetime interests we suggest more chances for re-entry by adults into formal higher education, more short-term programs leading to certificates, and, generally, more stress on lifelong learning. We oppose the sharp distinctions now made among full-time students, part-time students, and adult students. Education should become more a part of all of life, not just an isolated part of life. An educational interlude in the middle ranges of life deserves consideration.

4. To make certain degrees more appropriate to the positions to which they lead we shall make specific suggestions.

5. To make educational opportunities more available to more people, including women, employed persons, older people, and persons from the lower income levels.

With these goals in mind, we suggest several changes be designed to make post-secondary education more forward looking and more adaptable to individual situations than it is now."

Another study sponsored by the Carnegie Commission on Higher Education addressed itself to a theory of academic degree structure. In this book Spurr (1970) stated that:

> The ideal degree structures should be flexible enough to facilitate the student's finding a place in the system of higher education appropriate to his current interests and abilities. Additionally, he should have the opportunity of movement consonant with the development of his motivation, abilities, and performance. His eventual accomplishment should not be unduly restricted by the circumstances of his genetic constitution or his environmental background, by his previous educational opportunity, or by his early performance in educational tests. The system should, in other words, provide recurring opportunities so that no one failure should permanently stop the student's progress.

> In short, the ideal degree structure should provide for a continuum of choice of career goals and a continuum of choice of institutions, programs through which these career goals can be pursued.

With this kind of guidance and direction coming from leaders who shape the destiny of higher education, it is felt that it is time we consulted teachers presently utilizing the innovative techniques, specifically the trade competency examination program, for their views of its effectiveness in helping them develop professionally as teachers of trade and industrial education. Furthermore, the role this competency examination is playing in their lives as an instrument of self realization may enable these people to be in a unique position to suggest improvements needed in the usage, methods of administration, and scope of the total program. This survey was also intended to discover innovative programs which, if implemented, may possibly help trade and industrial teachers reach their aspired goals faster and with fewer frustrations, thereby improving teacher retention and satisfaction.

# CHAPTER III

## METHODOLOGY

The purpose of this study was to describe the employment patterns of the trade and industrial teacher for the school years 1967-68 through 1972-73 and their relationship to the use of granting college credit for occupational experience as an instrument of recruitment and retention of non-degree trade and industrial teachers.

Methodology was designed to answer the following questions:

1. To what extent have the non-degree trade and industrial teachers utilized the validation examination for personal professional fulfillment?

    a. How many have received their baccalaureate degrees?

    b. How many have pursued graduate work?

2. What has been the growth in total numbers of trade and industrial programs in Oklahoma?

3. How many teachers entered T & I teaching with baccalaureate degrees during this period?

4. How many entered T & I teaching without baccalaureate degrees during this period?

5. What has been the dropout rate of degree teachers compared to the dropout rate of non-degree teachers?

6. Is there a difference in the retention of non-degree teachers who have utilized the validation college credit examination for occupational experience and those who did not use it?

7. In the opinion of those who took the examination for validated college credit:

a. Did they feel this credit possibility was an important influence in their deciding to become T & I teachers?

b. Did they feel it was an important influence in their retention as T & I teachers after they entered the profession?

c. What factors other than this credit influenced them to become T & I teachers?

d. What factors have caused or would cause them to drop out of the teaching profession?

e. What other factors would influence recruitment and retention of T & I teachers?

## Population

Since significant growth in total numbers has taken place in the past six years in Oklahoma, and since the occupational competency examination for college credit has been in use for five years, it was decided that the employment patterns of Oklahoma trade and industrial teachers (recruitment and retention) should be extended one year before this credit was available to provide a workable base line for this study. The population for this study included all certified trade and industrial teachers in Oklahoma from 1967-68 through 1972-73 school years.

Data for answering the first six questions stated above were acquired from records in the offices of the State Supervisor for Trade and Industrial Education at the State Department for Vocational and Technical Education and the offices of the Trade and Industrial teacher educators at Oklahoma State University.

The desired information for question seven was sought from non-degree trade and industrial teachers who had used the occupational experience validation examination, based upon the assumption that their knowledge and experiences had given them unique insights for future innovations.

Another major concern in choosing participants for this study was to select individuals representative of those who would be affected by future developments which may result from this study.

From the records in the department of trade and industrial education at Oklahoma State University (designated as the only Trade and Industrial teacher education institution for Oklahoma), it was discovered that 105 trade and industrial teachers had met all requirements of the occupational competency examinations for 24 college hours credit. These 105 teachers represented some 20 different occupational groups.

Names and addresses from their college folders were cross-checked with the state directory of vocational teachers to acquire the most recent address. It was discovered that this group of teachers was dispersed over all geographic sections of Oklahoma and were teaching in several different types of institutions.

## Data Collection

Data for the employment pattern of trade and industrial teachers in Oklahoma from 1967-73 were collected from the records available in the State Department of Vocational and Technical Education and the teacher education offices at Oklahoma State University. Additional data were collected by mailing a questionnaire (Appendix B) to the selected participants with a cover letter (Appendix A) explaining the purpose of the inquiry and the procedure for responding. Because of the felt need to have as large a percentage of response as possible, it was decided to follow up those who did not respond the first time with a second letter (Appendix C). The questionnaire contained some items which were thought to be controversial enough to obtain a degree of negative reaction to insure a more broad range of responses, and consequently, more accurate responses rather than straight line marking by the respondent. Some additional spaces were provided throughout the questionnaire to enable participants to write in other items they felt were important which had been omitted. The write-in statements were reported in the descriptive section for review and study but were omitted from the tables.

The personal data form was designed to obtain additional information necessary to analyse the relationships shought by the research questions. A special effort was made to design a personal data form which was straight-forward enough to obtain relevant information without being excessively or extremely personal. A special section was added to the questionnaire requesting the respondent to make suggestions for additional innovations in trade and industrial education which he felt would be useful in helping non-degree trade and industrial

teachers achieve degree status quicker and with fewer frustrations.

It was not felt that a bias check on the first non-respondents would be necessary because of the nature of the questionnaire; therefore, plans were not made for such a check.

## Treatment of Data

Employment status and educational history data were obtained from the records of the Oklahoma State Department of Vocational and Technical Education and from the files of the Trade and Industrial Education Department of Oklahoma State University. Personal data and information about factors which influence recruitment and retention of trade and industrial education teachers were obtained by means of a questionnaire.

This instrument consisted of five sections. Each section contained a number of items to which the respondent was asked to assign relative importance. A Likert-type scale ranging from "Important Positive Influence to Important Negative Influence" was used to obtain this information. To facilitate data treatment, numerical values were assigned to the response categories as follows:

A. Important Positive Influence = 5

B. Positive Influence = 4

C. Little or no Influence = 3

D. Some Negative Influence = 2

E. Important Negative Influence = 1

A mean rating was computed for each item and is recorded on the tables in Chapter IV with the total number (N) of responses and the percentage of response for each response category.

The mean rating was computed by:

$$\text{Mean Rating} = \frac{5\ (N_A) + 4\ (N_B) + 3\ (N_C) + 2\ (N_D) + 1\ (N_E)}{N}$$

where:

$N_A$ = The number of respondents who marked important positive influence.

$N_B$ = The number of respondents who marked some positive influence.

$N_C$ = The number of respondents who marked little or no influence.

$N_D$ = The number of respondents who marked some negative influence.

$N_E$ = The number of respondents who marked important negative influence.

$N$ = The total number of responses to the item.

# CHAPTER IV

# RESULTS OF THE STUDY

## Introduction

The results of this study of granting college credit for occupational experience to assist non-degree trade and industrial teachers in Oklahoma reach degree status and remain in the teaching profession are presented descriptively in seven sections.

The first section describes the extent to which non-degree teachers have utilized the occupational experience validation examination for personal and professional fulfillment.

The second section describes the growth in total number of trade and industrial programs in Oklahoma during the six year period covered by this study.

The third section answers study questions number three and four by describing how many persons entered trade and industrial teaching with a degree and how many entered without a degree during the five years. The results are charted on a yearly basis and totaled for the overall growth picture.

The fourth section charts the dropout rate of degree teachers and the dropout rate of non-degree teachers, with a year by year description.

Section five compares the dropout percentage of non-degree teachers who have utilized the occupational experience examination for validated college credit with those who did not use it.

The sixth section of this chapter is concerned with an analysis of the influence this testing program has on recruitment and retention of trade and industrial teachers in Oklahoma.

An attempt was also made to gain insights for further development of the occupational experience validation examination program and to propose further innovations for improving the trade and industrial teacher education program at Oklahoma State University.

The following six questions will be the guide for describing the survey results.

1. Where and from whom did they learn of the opportunity to use credit for occupational experience?

2. Did they feel this credit possibility was an important influence in their deciding to become trade and industrial teachers?

3. Did they feel it was an important influence in their retention as trade and industrial teachers after they entered the profession?

4. What factors other than this credit influenced them to become trade and industrial teachers?

5. What factors have caused or would cause them to drop out of the teaching profession?

6. What other factors would influence recruitment and retention of trade and industrial teachers?

The final section of Chapter IV presents a general discussion of data somewhat outside the specified questions which may lead to further research in trade and industrial education.

## Utilization of the Occupational Experience Examination for College Credit by Trade and Industrial Teachers in Oklahoma

One hundred-five teachers have utilized a validation examination of their occupational experience for college credit at Oklahoma State University since the program was approved by the Board of Regents in 1968.

Specific tests have been given in the following areas:

| Occupational Experience Area | Number of Teachers |
|---|---|
| Aircraft Mechanics | 2 |
| Automotive Mechanics | 26 |
| Carpentry | 8 |
| Air Conditioning and Refrigeration | 2 |
| Auto Body Mechanics | 7 |
| Commercial Art | 1 |
| Cosmetology | 22 |
| Diesel Mechanics | 3 |
| Drafting and Design | 3 |
| Electricity (electrician) | 3 |
| Electronics (Radio and TV Repair) | 6 |
| Machine Shop Trades | 4 |
| Printing Trades | 5 |
| Sheet Metal Trades | 1 |
| Welding Trades | 7 |
| Culinary Arts | 1 |
| Health Occupations | 3 |
| Dry Cleaning | 1 |
| TOTAL | 105 |

Out of the 105 teachers to be surveyed, one was known to be deceased (no survey mailed), three moved without leaving forwarding addresses and could not be located, and 12 teachers who are still in Oklahoma trade and industrial programs did not respond to either of the two survey requests. Eighty-nine of the 105 total (84.82 per cent) responded to the survey showing the following results.

Seventy-eight are still teaching the occupation for which they were tested, two married and moved with their husbands to locations where a teaching job in their trade is not available, five went back to the industries from whence they were recruited, four are still in the education profession but in positions other than those for which they were tested--one is an elementary teacher, one is a state supervisor of trade and industrial education, one is a counselor at Langston University and one is a counselor at an area vocational technical school. Three of these four positions could be considered a promotion on the basis of increased salaries and responsibilities.

The following figures showing professional accomplishments and professional degree intent are compiled from the eighty-nine survey instruments returned.

1. B. S. Degree Status:

| | |
|---|---|
| Completed | 34 |
| Incomplete (presently pursuing) | 53 |
| Dropped | 2 |
| Total | 89 |

2. M. S. Degree Status:

| | |
|---|---|
| Graduated with M.S. Degree | 5 |
| Plan to Pursue M.S. Degree | 21 |
| Never Plan to Pursue M.S. Degree | 3 |
| Uncertain | 19 |
| Did Not Respond | 33 |
| Total | 89 |

## Growth in Total Trade and Industrial Programs in Oklahoma 1967-68 to 1972-73

All trade and industrial teachers in Oklahoma were charted by trade areas as listed in the 1967-68 State Directory of Trade and Industrial teachers, printed by the State Department for Vocational and Technical Education for the study's base line information.

Records were checked at the State Department through the cooperation of the State Supervisor to ascertain which of the teachers had baccalaureate degrees and masters degrees, and which were non-degree teachers.

These records were then expanded year by year from the next five State Trade and Industrial Directories to show new programs, closed programs, teachers changing schools, teachers dropping out, new teachers entering with degrees, and new teachers entering without degrees, for the five year period of the study.

Records were checked in the trade and industrial teacher education department through the cooperation of the Department Head of Trade and Industrial Education, to discover who received degrees and when they received them during this five year period. Information was included as to who had taken the occupational experience examination validation for college credit, when they had received it, and the last known address for those not presently teaching in Oklahoma.

This listing of every trade and industrial teacher in Oklahoma by location and year was used to bring facts together from the various sources which the writer discussed in this section and answered several questions to be covered in other sections of Chapter IV, but it was deemed unnecessary to describe the method more than once.

Tables I through VII show the base line information for this study which was discovered by the listing technique described above. Listing teachers by location and year prevented duplication of the listing of dropouts and recruits. In other words, if a teacher moved from one school in Oklahoma to another, he was neither a dropout nor a recruit.

TABLE I

DEGREE STATUS OF OKLAHOMA TRADE AND INDUSTRIAL TEACHERS
1967-1968

| Non-Degree | B. S. Degree | M. S. Degree | Total |
|---|---|---|---|
| 138 | 90 | 91 | 319 |
| 43.3% | 28.2% | 28.5% | 100% |
| Non-Degree 43.3% | + Degree 56.7% | = | 100% |

Since the study deals primarily with helping teachers reach degree and certification status, the writer did not distinguish between masters degrees and baccalaureate degrees when checking for facts during the next five years of the survey.

## Growth of Trade and Industrial Programs in Oklahoma

In order to have an accurate base for each year's dropouts and recruits, it was deemed necessary to record the exact number of programs which closed as well as those added each year. The following chart gives basic information as contained, but not described or identified, in the annual Trade and Industrial Directories. Total programs in Oklahoma have increased from 319 in 1967-1968 academic year to 433 in 1972-73 academic year. This has been an average annual growth rate of 6.4 per cent. The very high percentages in 1970-71 and 1971-72 can be attributed to the opening of six new area vocational and technical schools which have a majority of trade and industrial programs.

TABLE II

GROWTH OF TRADE AND INDUSTRIAL PROGRAMS FROM 1967 TO 1973

| School Year | New Programs | Programs Closed | Annual Growth | Total Programs | Annual Growth Percentages |
|---|---|---|---|---|---|
| 1967-68 | | | | 319 | |
| 1968-69 | 25 | 11 | 14 | 333 | 4.4% |
| 1969-70 | 10 | 10 | 0 | 333 | 0.0% |
| 1970-71 | 50 | 15 | 35 | 368 | 10.5% |
| 1971-72 | 53 | 6 | 47 | 415 | 12.8% |
| 1972-73 | 31 | 13 | 18 | 433 | 4.2% |
| Five Year Average Annual Growth Rate | | | | | 6.4% |

## Recruitment of Degree and Non-Degree Trade and Industrial Teachers 1967-68 to 1972-73

As recorded in Table II, the total number of trade and industrial programs has shown a growth every year except one. Therefore, recruitment efforts have had to keep up with this growth factor as well as cover the normal attrition.

Table III shows the degree status of the trade and industrial teachers at the time of recruitment. Over the five year period of the study, Oklahoma has recruited 201 non-degree trade and industrial teachers and 124 degree trade and industrial teachers. The dropout rate of all trade and industrial teachers has averaged 11.3 per cent for the five year period.

## Recruitment and Dropout Rate of Degree and Non-Degree Trade and Industrial Teachers from 1967-68 to 1972-73

Table IV lists the number of teachers who had a baccalaureate degree or higher when recruited into trade and industrial teaching, and, beginning with 1967-68 school year as the base, the annual rate of degree teacher dropouts is recorded as 10.9 per cent. The retired teacher is considered for all practical purposes as a dropout in this study. In order to have an accurate base with which to figure dropout percentage after 1967-68, the number of non-degree teachers who graduated are added to the total number of degree teachers along with the new recruits who have a degree, with the degree dropouts subtracted. The total number of trade and industrial teachers with degrees has increased from 181 in 1967-68 to 242 in 1972-73. The percentage

of teachers with degrees dropped from 56.7 per cent in 1967-68 to 55.8 per cent in 1972.

TABLE III

TOTAL RECRUITMENT AND ATTRITION OF TRADE AND INDUSTRIAL TEACHERS FROM 1967-68 THROUGH 1972-73 IN OKLAHOMA

| Year Recruited | Degree Recruits | Non-Degree Recruits | Dropped Out** | Total Programs | Annual Percentage Dropout |
|---|---|---|---|---|---|
| 1967-68 | 181* | 138* | 34 | 319 | 10.6 |
| 1968-69 | 12 | 36 | 44 | 333 | 13.2 |
| 1969-70 | 14 | 30 | 44 | 333 | 13.2 |
| 1970-71 | 34 | 45 | 39 | 368 | 10.6 |
| 1971-72 | 30 | 56 | 50 | 415 | 12.0 |
| 1972-73 | 34 | 34 | *** | 433 | |
| Total | 124 | 201 | | | |
| Five Year Average Annual Total T & I Teacher Dropout | | | | | 11.32% |

*Base year for study purposes showing total numbers in the programs (not a recruitment figure).

**Dropped out at the end of the academic year and had to be replaced the following academic year.

***Data for this study were obtained prior to June, 1973. Since dropout data for each academic year were obtained at the beginning of the next academic year, dropout data for 1972-73 could not be included in this study.

TABLE IV

ANNUAL RECRUITMENT AND DROPOUT OF DEGREE TRADE AND INDUSTRIAL TEACHERS FOR THE YEARS 1967-68 THROUGH 1972-73

| Year | Recruited with Degree | Non-Degree Teachers Graduated | Degree Dropouts | Total Degree Teachers | Annual* Percentage Dropouts | Total T & I Teachers | Per Cent of Total Teachers with Degrees |
|---|---|---|---|---|---|---|---|
| 67-68 | -- | -- | -- | 181 | -- | 319 | 56.7% |
| 68-69 | 12 | 4 | 22 | 175 | 12.1% | 333 | 52.5% |
| 69-70 | 14 | 8 | 21 | 176 | 12.0% | 333 | 52.8% |
| 70-71 | 34 | 6 | 21 | 195 | 11.9% | 368 | 52.9% |
| 71-72 | 30 | 8 | 18 | 215 | 9.2% | 415 | 51.8% |
| 72-73 | 34 | 13 | 20 | 242 | 9.3% | 433 | 55.8% |
| Five Year Average of Annual Degree Teacher Dropouts | | | | | 10.9% | | |

* These percentages were derived by dividing the number of "degree dropouts" for each academic year by the "total degree teachers" of the previous academic year. For example: 1968-69 degree dropouts = 22; 1967-68 total degree teachers = 181; thus, 22/181 = 12.1%

An accurate base for figuring percentage of non-degree trade and industrial dropouts is accomplished in Table V by substracting the number of non-degree teachers who graduate as well as the number who drop out and then adding the total recruited to the preceding year's total number.

The total number of degree teachers in Table IV and the total number of non-degree teachers in Table V always total the number of trade and industrial programs in Oklahoma for that year.

TABLE V

ANNUAL NON-DEGREE TRADE AND INDUSTRIAL TEACHER CHANGES

| Year | Recruited Without Degree | Non-Degree Teachers Graduated | Non-Degree Dropouts | Total Non-Degree Teachers | Annual Percentage Dropout | Total T & I Teachers |
|---|---|---|---|---|---|---|
| 67-68 | -- | -- | -- | 138 | -- | 319 |
| 68-69 | 36 | 4 | 12 | 158 | 8.6% | 333 |
| 69-70 | 30 | 8 | 23 | 157 | 14.5% | 333 |
| 70-71 | 45 | 6 | 23 | 173 | 14.6% | 368 |
| 71-72 | 56 | 8 | 21 | 200 | 12.1% | 415 |
| 72-73 | 34 | 13 | 30 | 191 | 15.0% | 433 |
| Five Year Average of Non-degree Annual Dropout | | | | | 12.9% | |

## Recruitment and Dropout Rate of Non-Degree Teachers Utilizing Occupational Competency Test for Credit Compared to Non-Degree Teachers Who Did Not Utilize the Test

From 1968, when the competency testing for college credit began in Oklahoma, until 1973, a total of 105 non-degree teachers have received 24 hours of college credit for occupational experience. The average annual dropout percentage for this group has been 6.46 (see Table VI), while the average annual dropout rate for the non-degree teachers who did not utilize the occupational competency test was 14.8 per cent (see Table VII).

TABLE VI

NON-DEGREE TEACHER DROPOUTS WHO DID UTILIZE THE OCCUPATIONAL COMPETENCY TEST FOR CREDIT

| Year | Tested Each Year | Total Tested | Dropout Each Year** | Cumulative Tested Dropouts | Total Tested and Teaching that Year | Annual Dropout Rate |
|---|---|---|---|---|---|---|
| 68-69 | 5 | 5 | 0 | 0 | 5 | 0.0% |
| 69-70 | 16 | 21 | 3 | 3 | 21 | 14.3% |
| 70-71 | 23 | 44 | 2 | 5 | 41 | 4.8% |
| 71-72 | 33 | 77 | 5* | 10 | 72 | 6.9% |
| 72-73 | 28 | 105 | 6* | 16 | 95 | 6.3% |
| Average Annual Dropout of Non-Degree Tested and Credited Teachers | | | | | | 6.46% |

*Four of these have other professional educational positions but are not teaching the trade tested for.

** This represents the number of people who taught during one academic year but did not return for the next academic year.

TABLE VII

NON-DEGREE TEACHER DROPOUTS WHO DID NOT UTILIZE THE OCCUPATIONAL COMPETENCY TEST FOR CREDIT

| Year | Total Non-Degree Teachers | Total Tested Still Teaching | Total Non-Degree Non-Tested | Non-Degree Dropouts | Tested Dropouts | Total Non-Tested Dropouts | Per Cent Non-Tested Dropouts |
|---|---|---|---|---|---|---|---|
| 67-68 | 138 | 0 | 138 | -- | -- | -- | -- |
| 68-69 | 158 | 5 | 153 | 12 | 0 | 12 | 8.6% |
| 69-70 | 157 | 18 | 139 | 23 | 3 | 20 | 14.4% |
| 70-71 | 173 | 39 | 134 | 23 | 2 | 21 | 15.7% |
| 71-72 | 200 | 67 | 133 | 21 | 5* | 16 | 12.0% |
| 72-73 | 191 | 89 | 102 | 30 | 6* | 24 | 23.5% |
| Average Annual Dropout of Non-Degree Teachers Who Did Not Utilize Competency Test for Credit = | | | | | | | 14.8% |

*Four of these have other professional educational positions but are not teaching the trade tested for.

## Analysis of Influence the Occupational Competency Testing Program Has on Recruitment and Retention of Trade and Industrial Teachers in Oklahoma

The personal data form (see Appendix B) revealed that most of the tested non-degree teachers learned about the unique college credit opportunity from teacher trainers when considering becoming a trade and industrial teacher or in a trade and industrial class at Oklahoma State University after becoming a teacher.

Total responses to question four of the personal data sheet were as follows.

4. Since you have participated in the credit for occupational experience examination, will you please indicate below how and when you learned about this opportunity by answering only Section A or Section B.

   A. Told about occupational experience when recruited into trade and industrial teaching by:

| | |
|---|---|
| Local Trade and Industrial Teacher | 6 |
| Local Administrator | 3 |
| State Supervisor | 5 |
| Teacher Trainer | 20 |
| Other | 6 |

   B. Learned about the opportunity after I was teaching:

| | |
|---|---|
| At a Trade and Industrial State Meeting | 8 |
| At OSU at Trade and Industrial Class | 33 |
| From a Teacher in My Own School | 8 |
| From a State Supervisor in My Own School | 0 |
| From a Local Administrator | 5 |
| Other | 5 |

## Aspirations and Opportunities Which Have Influenced Decisions to Become a Trade and Industrial Teacher

The 105 teachers who had taken the trade competency examination were asked to rate the extent to which their decisions to become a trade and industrial teacher was influenced by selected factors. There were 13 factors in this section of the instrument. Per cent of responses to each factor and the mean ratings are given in Table VIII. The five factors which had the highest mean ratings given in descending order were:

1 (Item 3). Desire to work with youth.

2 (Item 1). Desire to continue college education.

3 (Item 7). Wanted an opportunity to serve society.

4 (Item 13). Job opened in my area and I was available.

5 (Item 5). Liked the long vacation periods teaching would permit.

Of these five factors two of them (Items 3 and 7) reflect a desire for public service, two (Items 1 and Item 5) a desire to continue their education and vacation time to allow this opportunity and for self-fulfillment, and one (Item 13) reflects a desire to remain in the local community.

"School Administrator convinced me I would be a good teacher" ranked sixth. "Realization that I could get 24 hours of credit for occupational experience" ranked seventh. High rating on both of these items also reflects the local community and educational desire mentioned above.

TABLE VIII

TEACHERS' RESPONSES REGARDING ASPIRATIONS AND OPPORTUNITIES WHICH INFLUENCED THEM TO BECOME TRADE AND INDUSTRIAL TEACHERS

| | | Total Percentages of Responses | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | N | A | B | C | D | E | Mean Rating* |
| 1. | Desire to continue college education | 79 | 48 | 31 | 20 | 1 | 0 | 4.24 |
| 2. | Realization that I could get 24 semester hours credit for occupational experience | 75 | 13 | 16 | 69 | 1 | 1 | 3.27 |
| 3. | Desire to work with youth | 75 | 63 | 36 | 1 | 0 | 0 | 4.61 |
| 4. | Thought that school teaching would be an easier job | 81 | 4 | 9 | 84 | 2 | 1 | 3.10 |
| 5. | Liked the long vacation periods teaching would provide | 74 | 10 | 31 | 59 | 0 | 0 | 3.52 |
| 6. | Wanted to teach and continue other jobs part-time | 74 | 2 | 25 | 71 | 0 | 2 | 3.03 |
| 7. | Wanted an opportunity to serve society | 74 | 24 | 48 | 28 | 0 | 0 | 3.97 |
| 8. | Teaching would offer an opportunity to draw as much salary for less time at work | 74 | 6 | 10 | 68 | 11 | 5 | 3.01 |
| 9. | School administrator convinced me I would be a good teacher | 74 | 18 | 16 | 64 | 2 | 0 | 3.50 |
| 10. | State supervisor convinced me I would make a good teacher | 79 | 14 | 20 | 62 | 2 | 2 | 3.05 |
| 11. | Work in my industry was getting harder to find | 76 | 2 | 3 | 83 | 7 | 5 | 2.86 |
| 12. | Helpers for my industry were getting too hard to find, causing a burden on me | 76 | 8 | 21 | 66 | 1 | 4 | 3.06 |
| 13. | The job opened in my area and I was available | 75 | 24 | 38 | 37 | 0 | 1 | 3.83 |

*Mean Rating = $5(N_A) + 4(N_B) + 3(N_C) + 2(N_D) + 1(N_E)$

(For details see Treatment of Data in Chapter III).

Items number 14 and 15 of this section allowed the respondent to suggest other influences. The 15 positive influences specified were all different and are all stated below as received. These are not included in the summary Table.

Responses to Questions 14 and 15:

1. Local opportunity
2. Took a trade and industrial course
3. Liked to teach boys to work on cars
4. Survey of high school dropouts
5. Better retirement
6. Influenced by a local Trade and Industrial teacher
7. Influenced by a local Trade and Industrial supervisor
8. Major surgery made it impossible to work at trade but I could teach it
9. Felt need to help young people
10. Prior military teaching experience
11. Life long ambition
12. Help develop craftsmen
13. Enjoyed teaching in my industrial shop
14. Teacher trainer
15. Liked boys

## Factors Which Have Caused Trade and Industrial Teachers to Stay in Teaching

The 105 teachers who had taken the trade competency examination were asked to rate selected factors which have caused them to remain in the teaching profession. There were 15 items in this section of

the questionnaire. Percentage of responses to each item and the mean ratings are given in Table IX. The five selected factors which had the highest mean ratings given in descending order were:

1 (Item 2). I get greater personal satisfaction from teaching than from skill work.

2 (Item 13). Students like me and the skills I help them develop.

3 (Item 9). Strong support by the school administration.

4 (Item 8). Good support from industries in my community.

5 (Item 5). Getting college credit for my occupational experience.

5 (Item 4). B. S. Degree requirements forces me to continue my college education.

Of these six factors having the five highest mean ratings, four items (2, 13, 9, and 8) reflect feelings of altruism and acceptance by others. Factors number four and five had the same mean average to tie for fifth rank. Both of these Items reflect the desire for personal educational fulfillment.

Six responses were given to question number 16 which calls for "other" factors in this category, listed here for review and study and omitted from the table.

I like to help young people (3)

Happy in my work (1)

I like it--its simple (1)

Enjoy seeing young people advance from one level to another (1)

TABLE IX

TEACHERS' RESPONSE TO FACTORS WHICH HAVE CAUSED THEM TO STAY IN TEACHING

| | | Percentage of Response | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | N | A | B | C | D | E | Mean Rating* |
| 1. | My family likes my teaching position better than my skilled occupation job | 70 | 24 | 29 | 46 | 1 | 0 | 3.75 |
| 2. | I get greater personal satisfaction from teaching than from my skilled occupation | 79 | 56 | 32 | 12 | 0 | 0 | 4.45 |
| 3. | I can teach and still work part-time (moonlight) for salary supplement | 72 | 6 | 22 | 67 | 1 | 4 | 3.15 |
| 4. | The B.S. degree requirement forces me to continue my college education | 73 | 18 | 31 | 49 | 0 | 2 | 3.87 |
| 5. | Getting college credit for my occupational experience | 73 | 18 | 31 | 49 | 0 | 2 | 3.87 |
| 6. | Being involved with all school activities more than non-teachers (athletics, etc.) | 73 | 8 | 19 | 66 | 7 | 0 | 3.28 |
| 7. | Not having to be involved with outside school activities | 69 | 1 | 10 | 82 | 5 | 2 | 3.02 |
| 8. | Good support from industries in my community | 74 | 20 | 51 | 28 | 0 | 1 | 3.89 |
| 9. | Strong support by the school administration | 79 | 51 | 26 | 22 | 1 | 0 | 4.27 |
| 10. | Own my own home in this community and no industrial opportunity for me | 70 | 4 | 4 | 85 | 3 | 4 | 3.01 |
| 11. | Have less responsibility as a teacher than as a skilled worker | 71 | 2 | 0 | 78 | 12 | 8 | 2.77 |
| 12. | Have great opportunity for social advancement | 73 | 6 | 29 | 58 | 4 | 3 | 3.32 |
| 13. | Students like me and the skills I help them develop | 70 | 45 | 42 | 12 | 1 | 0 | 4.31 |
| 14. | State plan allowing me to work instead of attending college each fourth summer | 70 | 8 | 15 | 76 | 0 | 1 | 3.28 |
| 15. | Have greater responsibility as a teacher than as a skilled worker | 73 | 26 | 31 | 35 | 6 | 2 | 3.72 |

*Mean Rating = $5(N_A) + 4(N_B) + 3(N_C) + 2(N_D) + 1(N_E)$ (For details see Treatment of Data in Chapter III).

## Factors Which May Cause Trade and Industrial Teachers to Stop Teaching

The 105 teachers who had taken the trade competency examination were asked to rate the extent to which 17 selected factors may influence (or have caused) them to stop teaching.

Percentage of responses to each item, the number of responses and the mean ratings are given in Table X.

The five factors which had the highest mean ratings are given in descending order.

1 (Item 1). Salary too low for my ability

2 (Item 8). Industry opportunities too great to resist

3 (Item 7). Program closed

4 (Item 5). Poor cooperation from school administration

5 (Item 15). Building and physical plant inadequate and no way to improve it.

Of these five factors, two items (1 and 8) reflect a strong influence due to supply and demand for skilled workers, while the other three (items 5, 7, and 15) reflect poor acceptance and poor support of trade and industrial programs in the schools.

It is interesting to note that while 28 per cent of the participants marked question number eleven (program used as a dumping ground), three also listed dumping ground again as a response to question number 17, where they were asked to be specific on "other" factors in this section of the questionnaire.

TABLE X

TEACHERS' RESPONSE TO FACTORS WHICH MAY CAUSE THEM TO STOP TEACHING TRADE AND INDUSTRIAL EDUCATION

| | | Percentage of Response | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | N | A | B | C | D | E | Mean Rating* |
| 1. | Salary too low for my abilities | 79 | 20 | 34 | 45 | 0 | 1 | 3.72 |
| 2. | Educational requirements too difficult | 78 | 5 | 14 | 71 | 5 | 5 | 3.08 |
| 3. | Image of trade and industrial teacher too low in my school | 74 | 1 | 11 | 80 | 1 | 2 | 2.98 |
| 4. | Responsibilities too great in my teaching field | 73 | 4 | 10 | 80 | 1 | 5 | 3.05 |
| 5. | Poor cooperation from school administrators | 76 | 9 | 19 | 64 | 3 | 5 | 3.25 |
| 6. | Student attitudes poor toward my field | 74 | 4 | 14 | 75 | 3 | 3 | 3.14 |
| 7. | Program closed | 70 | 17 | 7 | 72 | 0 | 4 | 3.32 |
| 8. | Industrial opportunities too great to resist | 72 | 15 | 28 | 56 | 1 | 0 | 3.56 |
| 9. | Teaching field not what I thought it would be | 71 | 3 | 4 | 89 | 1 | 3 | 3.02 |
| 10. | Students too difficult to control | 73 | 0 | 10 | 83 | 2 | 5 | 2.95 |
| 11. | My program used as a dumping ground | 74 | 8 | 20 | 61 | 7 | 4 | 3.21 |
| 12. | Not enough supervision to help me solve my class problems | 75 | 10 | 5 | 79 | 1 | 5 | 2.98 |
| 13. | Too many local restrictions on my program | 71 | 4 | 8 | 82 | 1 | 5 | 3.02 |
| 14. | Equipment old and worn out | 73 | 7 | 11 | 71 | 7 | 4 | 3.09 |
| 15. | Building and physical plant inadequate and no way to improve it | 71 | 8 | 16 | 70 | 3 | 3 | 3.25 |
| 16. | Program verbally degraded by counselors and other teachers | 72 | 7 | 10 | 75 | 3 | 5 | 3.09 |
| 17. | Program misused by administration (specify) | 67 | 13 | 11 | 69 | 1 | 6 | 3.23 |

*Mean Rating = $5(N_A) + 4(N_B) + 3(N_C) + 2(N_D) + 1(N_E)$

(For details see Treatment of Data in Chapter III).

Individual responses to questions 17 and 18 are itemized below as they were received from the participants.

Item 17. Dumping ground (3)

No room, no money

Too many students

Too many school jobs not related to trade (2)

Lack of proper screening of students (4)

Used only for credits so athletes can graduate

Production has priority over instruction (3)

Required to make repairs outside subject area

Item 18. Employed by state department

Physically unable to teach (5)

Too much emphasis pláced on academics

Marriage, no opportunity to teach

Married, moved out of state

Retirement at age 62

Plan on moving into administration

Poor counseling at the home high school

## Influence Selected People Had on Decisions to Become Trade and Industrial Teachers

In order to gain further knowledge about factors which influence people to become trade and industrial teachers, the 105 teachers who had taken the trade competency examination were asked to rate the influences selected people had on decisions to become trade and industrial teachers. There were 13 items in this section of the questionnaire.

Percentages of responses to each factor and the mean ratings are given in Table XI.

The five factors which had the highest mean ratings given in descending order were:

1 (Item 6). Trade and industrial teachers

2 (Item 11). State Supervisor of Trade and Industrial Education

3 (Item 5). Industrial friends

4 (Item 8). School administrator

5 (Item 10). Teacher trainer

Of these five highest ranked factors, only the top three items (6, 11, and 5) had more than 50 per cent of the responses on the positive influence side of the questionnaire.

Item number eight (school administrator) had 49 per cent to the positive influence and item number 10 (teacher trainer) had 43 per cent total positive influences.

Items number 14 and 15 on this portion of the questionnaire allowing the respondent to write in "other" factors in this category were omitted by all but three respondents. These three listed "wife."

TABLE XI

TEACHERS' RESPONSES TO THE INFLUENCE SELECTED PEOPLE HAD ON THEIR DECISION TO BECOME TRADE AND INDUSTRIAL TEACHERS

| People Who Influenced You | N | Percentage of Response A | B | C | D | E | Mean Rating* |
|---|---|---|---|---|---|---|---|
| 1. Parents | 76 | 13 | 19 | 65 | 3 | 0 | 3.43 |
| 2. Brothers or sisters | 75 | 10 | 11 | 78 | 1 | 0 | 3.28 |
| 3. Other relatives | 75 | 9 | 13 | 77 | 1 | 0 | 3.28 |
| 4. Guidance counselors | 73 | 3 | 7 | 83 | 4 | 3 | 3.06 |
| 5. Industrial friends | 76 | 27 | 28 | 44 | 1 | 0 | 3.80 |
| 6. Trade and industrial teachers | 76 | 35 | 18 | 46 | 0 | 0 | 3.89 |
| 7. Teacher friends | 78 | 22 | 26 | 52 | 0 | 0 | 3.69 |
| 8. School administrator | 77 | 33 | 16 | 50 | 1 | 0 | 3.79 |
| 9. Military personnel | 73 | 10 | 5 | 81 | 3 | 1 | 3.19 |
| 10. Teacher Trainer | 74 | 29 | 14 | 57 | 0 | 0 | 3.72 |
| 11. State supervisor of Trade and Industrial Education | 76 | 31 | 22 | 47 | 0 | 0 | 3.82 |
| 12. State supervisor of another vocational discipline (identify) | 68 | 11 | 5 | 80 | 2 | 2 | 3.22 |
| 13. College placement personnel office | 68 | 5 | 0 | 89 | 5 | 1 | 3.01 |

* Mean Rating = $5(N_A) + 4(N_B) + 3(N_C) + 2(N_D) + 1(N_E)$
(For details see Treatment of Data in Chapter III).

## Experiences Which Influenced Decisions to Become Trade and Industrial Teachers

The 105 teachers who had taken the trade competency examination were asked to rate the extent to which selected experiences were a factor in their decision to become trade and industrial teachers. There were 14 factors in this section of the instrument.

Percentage of responses to each item and the mean ratings are given in Table XII.

The five factors which had the highest mean ratings given in descending order were:

1 (Item 14). Personal interests or hobbies

2 (Item 10). Enrolled in a college technical course

3 (Item 12). Participated in community youth groups (scouts, YMCA, 4-H, etc.)

4 (Item 2). Visited trade and industrial class in a comprehensive high school

5 (Item 13). Teaching experience in the military service

Of these five factors only one (item 14) had more than 50 per cent of the responses on the positive side of the continuum. Each time a teacher listed his hobby that influenced him to become a teacher, it was found that he was teaching the subject or one closely related.

The other four in the top five rank (Items 10, 12, 3 and 13) all reflect personal education and altruistic connotations.

It is interesting to note that four teachers also listed "worked with church youth" on number 15 which gave them opportunities to list "other" experiences influencing their decision to become trade and industrial teachers.

Responses to question 15 are listed here as received.

TABLE XII

TEACHERS' RESPONSES TO EXPERIENCES WHICH INFLUENCED THEIR DECISION TO BECOME TRADE AND INDUSTRIAL TEACHERS

| | | Percentage of Response | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | N | A | B | C | D | E | Mean Rating* |
| 1. | Visited college campuses | 73 | 5 | 10 | 80 | 3 | 2 | 3.15 |
| 2. | Visited T & I class in comprehensive high school | 74 | 16 | 13 | 67 | 2 | 2 | 3.41 |
| 3. | Visited an area vo-tech school | 72 | 11 | 12 | 73 | 2 | 2 | 3.30 |
| 4. | Read booklet describing teaching careers | 74 | 2 | 10 | 85 | 2 | 1 | 3.09 |
| 5. | Read newspaper article about T & I teaching | 73 | 1 | 14 | 82 | 3 | 0 | 3.13 |
| 6. | Read brochure describing T & I teacher requirements | 72 | 1 | 24 | 74 | 0 | 1 | 3.23 |
| 7. | Listened to radio or TV program describing need for T and I teachers | 71 | 1 | 3 | 93 | 2 | 1 | 3.01 |
| 8. | Enrolled in high school T and I industrial class | 72 | 15 | 7 | 75 | 0 | 3 | 3.31 |
| 9. | Enrolled in high school industrial arts class | 72 | 3 | 19 | 75 | 0 | 3 | 3.18 |
| 10. | Enrolled in college technical course | 79 | 19 | 19 | 61 | 0 | 1 | 3.54 |
| 11. | Enrolled in junior college course and associate degree programs | 73 | 12 | 4 | 81 | 0 | 3 | 3.23 |
| 12. | Participated in community youth groups (scouts, YMCA, 4-H, etc.) | 72 | 17 | 18 | 61 | 1 | 3 | 3.44 |
| 13. | Teaching experience in military service | 73 | 12 | 14 | 71 | 0 | 3 | 3.32 |
| 14. | Personal interests or hobbies (indicate) | 65 | 42 | 16 | 42 | 0 | 0 | 3.84 |

*Mean Rating = $5(N_A) + 4(N_B) + 3(N_C) + 2(N_D) + 1(N_E)$

(For details see Treatment of Data in Chapter III).

I wanted to finish college

Worked with church youth (4)

Always wanted to be a teacher

Taught in a private school

Attended Oklahoma State Tech

Helped train boys in my shop

Taught manpower development and training class (3)

## Recommendations for Degree Granting Innovations for Trade and Industrial Teachers

In the special section of the questionnaire the teachers were asked to respond to the following statement.

> Due to your unique experience as non-degree trade and industrial teacher pursuing professional status, you may have special recommendations for improvements or changes the Oklahoma State University Department of Trade and Industrial Education could use in helping non-degree teachers reach degree status easier and with less frustrations. Please list any recommendations for changes you may have in the order you consider most important.

Since only a few participants responded to this section, it was decided to list all suggestions made that had to do with the above request. The 31 suggestions for improvements fall within three major categories which are:

A. Better services from the Trade and Industrial Education Department at Oklahoma State University.

B. Fewer <u>specific</u> degree requirements by the university for the Trade and Industrial Education Degree.

C. Better services and/or requirements by the State Department of Vocational and Technical Education.

All suggestions are categorized and stated as received for review and further study.

# CHAPTER V

## SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

### Summary

The purpose of this study was to describe the employment patterns of the trade and industrial teachers for the school years 1967-68 through 1972-73 and their relationship to the use of granting college credit for occupational experience as an instrument of recruitment and retention of non-degree trade and industrial teachers.

Since little has been recorded concerning trade and industrial education's growth, recruitment and attrition patterns in Oklahoma, six questions were formulated to guide in gathering baseline information.

A seventh question with six specific areas was developed to guide in collecting opinions from the participants about the effects of granting college credit for the occupational experience examinations and other factors. These questions are listed in Chapter I on pages 4 and 5.

The data collected revealed that 105 teachers have utilized the occupational experience examination for college credit during the past five year period. Eighty-nine of these 105 responded to the questionnaire to provide the data for this study. See Appendix B for the questionnaire.

Thirty-four of the 89 have completed their baccalaureat degree, 53 are presently pursuing their degree, and only two have completely dropped the degree program.

Five of the 89 have completed a master's degree and eight are presently pursuing a master's degree.

Seventy-eight of the respondents are still teaching the occupation in which they were tested; two married and moved with their spouses to locations where a teaching position was not available for them. Five went back to their original jobs in industry; four others are still in the educational profession, but in jobs other than teaching the trade area in which they were tested. One of the four is a district supervisor of trade and industrial education.

The total number of trade and industrial education programs has increased from 319 in 1967-68 to 433 in 1972-73. This is an overall growth of 34 per cent with an annual average increase of six per cent.

The recruitment patterns of degree and non-degree teachers shown in Tables III and IV reveal that the total number of non-degree teachers recruited over the five year period was larger than the number of degree teachers recruited. However, the total percentage remains almost constant due to normal attrition of degree teachers and graduation of non-degree teachers.

The total percentage of degree teachers was 56.7 per cent in 1967-68 and was 55.8 per cent in 1972-73 (124 degree teachers and 201 non-degree were recruited during this time period).

The dropout rate of degree trade and industrial teachers averaged 10.9 per cent annually during the five year study, while the overall dropout rate of non-degree teachers for the same period of time was

12.9 per cent. Annual averages are shown in Tables IV and V.

The average annual dropout rate of non-degree teachers who utilized the occupational competency examination for college credit was 6.46 per cent (Table VI), while the dropout rate for non-degree teachers who did not utilize the occupational competency examination was 14.8 per cent (Tables VI and VII).

Responses to the personal data form on the questionnaire (Appendix B) revealed that a majority of the tested non-degree teachers learned about the credit for occupational experience by validation examination after they were teaching, and it therefore did not play an important part in their recruitment. Fifty-three respondents indicated they learned about the opportunity to receive credit for experience from a trade and industrial teacher trainer.

An analysis of these results would suggest that better communications are needed between the teacher educators, state supervisors, and local administrators in order to utilize the occupational experience examination as a tool for recruitment and for teachers' professional advancement.

While the credit for occupational experience did not play an important function in recruitment of these early participants, they did rate it high enough in influence on retention that it ranks seventh on a list of sixteen items.

The "desire to work with youth" was the strongest influence in recruitment of the respondents with a "desire to continue a college education" the second strongest influence upon the group tested.

The teachers' responses ranked "low salary for their ability" and "industrial opportunities too great to resist" as first and second

highest probable causes to stop teaching with "poor cooperation from administration" and "their program used as a dumping ground" receiving third and fourth ranks respectively.

Other "Trade and Industrial Teachers" received the highest ranking as people who influenced the decision for the respondents to become trade and industrial teachers, while "State Supervisors of Trade and Industrial" ranked second. The third and fourth highest groups influencing decisions to become trade and industrial teachers were "industrial friends" and "school administrators," respectively.

"Personal interests and hobbies" received the most positive marks for the experiences which influenced the respondents to become trade and industrial teachers, while "enrollment in college technical courses" ranked second.

Thirty-one suggestions were made by the 89 respondents for degree granting innovations for Oklahoma State University to consider in developing trade and industrial teachers as requested in the special section of the questionnaire. These responses are listed in Appendix D for future study. However, the suggestions can be summarized in three categories:

1. Better services and opportunities for college credit through the Trade and Industrial Education Department of Oklahoma State University.
2. Fewer frustrating and unnecessary requirements by the university as a whole.
3. Better services and/or requirements by the State Department of Vocational and Technical Education.

## Conclusions

This section is devoted to conclusions that can be made on the basis of the data collected in this study. These conclusions are primarily centered around the seven questions stated in Chapter I.

1. The fact that 105 non-degree teachers have utilized the trade competency examination for validated college credit in the five years the opportunity has been available is evidence of its acceptance by the teachers. The fact that it has helped 34 non-degree teachers reach baccalaureate degree status and five reach master's degree status is further proof of its utility for professional fulfillment.

2. The data showing the annual dropout average of degree teachers to be 10.9 per cent (including retirements), while the annual average dropout rate of non-degree teachers is 12.9 per cent suggests that reaching professional degree status has some positive influence for retention of teachers in Oklahoma under the present professional requirements for trade and industrial teachers.

3. The fact that the annual average dropout rate of teachers who had not taken the competency examination is 14.8 per cent while the annual average dropout rate of non-degree teachers who have taken the examination is 6.46 per cent suggests that the examination and credit may be a positive factor in retention of trade and industrial teachers.

4. The data showing that the majority of the respondents learned about the credit for competency examinations after they were teaching suggests that this opportunity has not played a large role in recruitment for these first participants in the program. However, since those

recruited after the program began said it did have a positive influence on them, one may also conclude that it may become an important influence on recruitment in the future.

5. It can be concluded from data received from the questionnaires that many factors other than credit for competency tests also need to be studied in depth in relation to recruitment and retention of trade and industrial teachers in Oklahoma.

## Implications

This section is devoted to reporting subjective implications based on data recorded in this study, data reported in the literature reviewed for this study, and the author's eight years of experience as a trade and industrial teacher and eight years experience as a trade and industrial teacher educator.

Data revealing that the majority of the 89 respondents learned about the test from teacher educators after they were teaching and that most recruiting was done by local trade and industrial teachers and local administrators and state supervisors lead us to recommend that knowledge of the trade competency examination for college credit should be made available to all people involved in recruitment. The author feels this knowledge in the hands of these regular trade and industrial recruiters will help the trade competency test become a positive factor in recruitment in the future, just as evidence in this report has shown it to be a positive factor in retention.

Since the data received were perhaps from the more successful, more dedicated non-degree recruits, the factors revealed in the questionnaire about experiences, aspirations, people and opportunities

which ranked high in influencing these people to become trade and industrial teachers will be most helpful in searching for and examining future prospects.

While the listing of influences that might cause one to drop out of teaching is necessarily subjective, it is nevertheless worthy of consideration by administrators and supervisors of trade and industrial programs. Likewise, the knowledge of what has influenced trade and industrial teachers to stay in teaching will provide administrators an opportunity to accentuate positive factors and eliminate or reduce the negative factors through better supervisory assistance techniques. Supervision based on this knowledge should aid in teacher retention as well as assist in up-grading local programs.

Some of the suggestions made by the respondents for further innovations for helping non-degree teachers complete their degrees and certification with fewer frustrations are definitely worthy of serious consideration by the trade and industrial education department. As suggested by the Carnegie Commission reports of 1971 in "Less Time--More Options," the timing should be right for sound innovative proposals aiding degree and certification completion.

## Recommendations

As a result of the data collected and compiled in this study, it is recommended:

1. That the trade competency examination for college credit in specialization areas be continued by Oklahoma State University;

2. that the feasibility of allowing more credit through the examinations be considered;

3. that information concerning the occupational competency examination for college credit be made available to all those involved in trade and industrial teacher recruitment through a special brochure.

## Further Recommendations

These recommendations are based on the data reported in this study, the data reported in the related literature, and the author's eight years experience in trade and industrial teaching and eight years experience in trade and industrial teacher training.

Data collected and compiled for this study has laid the groundwork for other studies relevant to recruitment and retention of trade and industrial teachers.

1. The non-degree teachers who didn't take the trade competency examination for college credit and dropped out of teaching should be studied to see why they entered teaching in the first place and just what caused them to drop out.

2. Since the study was made during the introductory period of the competency tests for college credit in Oklahoma, further studies may be helpful to determine if degree status and retention rates will increase in the future as a result of this innovation.

3. An in-depth study of methods of recruitment of trade and industrial teachers in Oklahoma is definitely needed to improve recruitment and retention of good trade and industrial teachers.

4. A study of sources of recruitment for specific trade and industrial teachers would be helpful in answering questions about supply and demand.

5. Studies dealing with teacher self-perception for both non-degree and degree teachers in Oklahoma could play a significant role in the recruitment of satisfied individuals by providing better guidance information to individuals who work with recruitment, education, and supervision of new trade and industrial teachers.

These are but a few areas open to further study.

For implementation of the findings in this study the author recommends:

1. That a summary of this study be made available to all administrators and supervisors of trade and industrial education programs for their use in recruitment and program improvements.

2. That a study be made of the respondents' suggested innovations for improvement of the trade and industrial degree by the Trade and Industrial Teacher Education Department, and proper proposals submitted to the school of occupational and adult education for implementation of all sound suggestions contained in this study.

SELECTED BIBLIOGRAPHY


Cotrell, Calvin J.

1968 Trade and Industrial Teacher Education Research Planning Conference Report. Eric Accession Number ED-011043

Feirer, John L.

1968 "Occupational Experience for T & I Teachers." Industrial Arts and Vocational Education, Vol. 57 (Feb.), p. 19.

1972 "What's Your Role in Career Education?" Industrial Arts and Vocational Education, Vol. 61 (June), p. 25.

Foley, Dennis J., Jr.

1967 Hand Book of Potential Industrial Arts Teachers, New York University, N. Y. Eric Accession Number ED-030-727.

Gibbs, Jeffrey L.

1969 "The Education Sources and Recruitment of Wisconsin Vocational-Technical Teachers." Eric Accession Number ED-029-996.

Gubasta, Joseph L.

1967 "Teacher Recruitment for Technical and Vocational Education Programs." (Unpub. Research Paper, Stout State University, June).

Irwin, Armond.

1972 "The Watchword is Career Education." Technical Education News", Vol. 31 (May), p. 2.

Kazamas, H. D. and L. D. Kieft.

1966 "An Experimental Project to Determine More Effective Vocational Teachers Certification Procedures in Michigan by Competency Examinations." Eric Accession Number ED-013-884.

Koenigsberg, L. A. and R. R. Reilly.

1968 "An Investigation of Selected Occupational Competency Examinations and Their Use in Evaluating Prospective Trade and Industrial Teachers." Eric Accession Number ED-030-734.

Kynard, A. T.

1964 "Check List for Evaluating the Work Experience of New Trade and Industrial Teachers," American Vocational Journal, Vol. 39 (March), p. 21.

Larson, Milton E. and William Crain.

1969 Utilization of Competency Examinations in Vocational-Technical Education. Fort Collins, Colo.: Colorado State Univ. Research Coordinating Unit, May.

Lauda, Donald Paul.

1966 "Factors Related to the Granting of College-University Credit for Trade and Industrial Experience in Institutions Offering Industrial Credit." Eric Accession Number ED-916-052.

Law, Gorden F. and Carl J. Schoefer.

1971 Vocational-Technical Terminology. Eric Accession Number 215-840.

Marland, S. P., Jr.

1971 Career Education. Washington, D.C.: U. S. Government Printing Office, U. S. Dept. HEW Publication Number OE 12-39.

1969 Vocational and Technical Report Annual Report Fiscal Year 1969. Washington, D.C.: U. S. Department HEW, Office of Education.

1971 "Marland on Career Education." Washington, D.C.: U. S. Department HEW, OEO Number OE 72 52 A.

Mellman, Robert A.

1957 "An Analysis of Successful Procedures for the Recruitment of Skilled Tradesmen for the Teacher of Vocational Industrial Education in Pennsylvania." (Unpub. Doctoral Thesis, the Pennsylvania State University, University Park.)

McDowell, I. C. and B. T. Fagan.

1969 Institute on the Recruitment, Selection and Training of Teachers of Trade and Industrial Education. Eric Accession Number 034-057.

Oklahoma State Department of Vocational and Technical Education.

1972-73 Operations and Procedures Manual. Stillwater, Oklahoma.

1965-72 Personnel Directory(s). Stillwater, Oklahoma.

Panitz, Adolph and C. Thomas Olivo.

1970 The State of the Art of Occupational Competency Testing. Eric Accession Number ED 051-378.

Popham, James W.

1968 Performance Test of Instructors Competence for Trade and Industrial Education. Eric Accession Number 027-418.

Public Law 90576.

1963 Amendments to the Vocational Education Act of 1963. Washington, D.C.: 90th Congress, H. R. 18366, October 16, 1968.

Reese, Robert M.

1968 Trade and Industrial Teacher Education and Certification. Columbus, Ohio: The Ohio State University, Report of a National Invitational Research Development Seminar, Center for Vocational-Technical Education.

Roney, Maurice W.

1972 "Programming Occupational Education for the Future." School Shop Magazine, Vol. 32 (June), p. 24.

Rumpf, Edwin L.

1971 Trends in Vocational Education Enrollments, Expenditures, Teachers. Washington, D.C.: U. S. Department of HEW, Vocational Education Information Number III.

Schaefer, Carl J.

1963 "Mid-twentieth T & I Needs a New Breed of Teachers." School Shop, Vol. 23 (November), p. 11.

Spurr, Stephen H.

1970 Academic Degree Structures: Innovative Approaches. New York: McGraw Hill Book Company.

Studebaker, Earnest B. and Edwin L. Rumpf.

1968 The National Goals of Trade and Industrial Education and Meeting the Growth Demands for Training. Washington, D.C.: U. S. Department HEW, Office of Education, Division of Vocational Technical Education.

Schultz Fred A. and Robert H. Terry.

1971 Selected Aspects of Vocational Image as Perceived by a Public Categorized by Occupational Levels. Stillwater, Okla.: Department of Vocational Technical Education, Summarization of a Doctoral Dissertation printed by Division of Research, Planning and Evaluation.

U. S. Department of Labor.

1972-73 Occupational Outlook Handbook 1972-73 Edition. Washington, D.C.: Bureau of Labor Statistics, Bulletin No. 1700.

Venn, Grant

1964 Man, Education and Work. Washington, D.C.: The American Association of School Administrators.

Vivian, Neal E. and Kenneth E. Hoffman.

1968 Vocational-Technical Teacher Education National Seminar Proceedings. Columbus, Ohio: The Center for Vocational-Technical Education, Ohio State University.

1970 Vocational Competency Examinations for Preparatory Teachers and Teacher Coordinators in Vocational Business and Office Education. Eric Accession Number ED-042-893

Walsh, John P.

1960 Teacher Competencies in Trade and Industrial Education. Washington, D.C.: U. S. Department of HEW, Number OE 84006.

# APPENDIX A

## COVER LETTER

Oklahoma State University

DEPARTMENT OF TRADE AND INDUSTRIAL EDUCATION

STILLWATER, OKLAHOMA 74074
104 INDUSTRIAL BUILDING
(405) 372-6211 Ext. 7262

May 7, 1973

In 1968 Oklahoma State University approved the granting of 24 hours credit for occupational experience to vocational teachers upon passing a validation examination through the Trade and Industrial Education Department course number TIED 3000. To date we have had 95 individuals receive credit for their occupational competency.

We are constantly working to improve our trade and industrial teachers' education as well as their professional status. We feel that you and the other 94 participants have unique experiences which will be most helpful to us in making recommendations for improving trade and industrial teacher education. Will you please take a few minutes to go through the enclosed questionnaire items and indicate what you feel to be the relative importance of each in regard to your personal experiences as a trade and industrial teacher.

A stamped, self-addressed envelope is enclosed for your convenience in returning the questionnaire.

Your assistance will be deeply appreciated.

Sincerely,

Clyde B. Knight

Clyde B. Knight
Assistant Professor
TRADE AND INDUSTRIAL EDUCATION

CBK:jb
Enclosure

# APPENDIX B

# INSTRUMENTS

SURVEY OF OCCUPATIONAL COMPETENCY TEST
PARTICIPANTS IN OKLAHOMA
PERSONAL DATA

NAME _____ TITLE OF PRESENT POSITION _____
(first) (middle) (last)

PRESENT EMPLOYER

_____
(name of institution, school system or company) (city) (state)

1. B. S. DEGREE STATUS
(please answer one)
( ) Completed B. S. Degree (month & year) _____
( ) Incomplete, expect to graduate (month & year) _____
( ) Incomplete, dropped the program (month & year) _____

2. M. S. DEGREE STATE
(please answer one)
( ) Presently pursuing M. S. Degree (where) _____
( ) Plan to pursue M. S. Degree after I graduate _____
( ) Never plan to pursue M. S. Degree _____
( ) Graduate with M. S. Degree (month & year) _____
( ) Uncertain

3. OCCUPATIONAL OR INDUSTRIAL EXPERIENCE

(please answer all of these)

Occupational work related to teaching specialty (number of years) _____
Work not related to teaching specialty (number of years) _____
Teaching Experience (number of years) _____

4. Since you have participated in the credit for occupational experience exam, will you please indicate below how and when you learned about this opportunity by answering only Section A or Section B.

A. ( ) Told about it when recruited into T&I teaching

( ) By local T&I teacher
( ) By local administrator
( ) principal
( ) superintendent
( ) director
( ) other
( ) By state supervisor of T&I
( ) By teacher trainer
( ) Other (please specify) _____

B. ( ) Learned about the opportunity after I was teaching

( ) At a T&I state meeting
( ) At OSU in a T&I class
( ) From a teacher in my own school
( ) From a state supervisor in my own school
( ) From a local administrator (please specify) _____
( ) Other (please specify) _____

## QUESTIONNAIRE

Instructions: Please indicate, by circling the appropriate letter, what you feel to be the most appropriate answer of the five choices for each questionnaire item. Indicate in the blanks, items you consider important which may have been omitted.

| | | A. Important positive influence | B. Some positive influence | C. Little or no influence | D. Some negative influence | E. Important negative influence |
|---|---|---|---|---|---|---|
| PART I Factors Influencing Your Decision to Become a T&I Teacher | | | | | | |
| **People Who Influenced You** | | | | | | |
| 1. | Parents | A | B | C | D | E |
| 2. | Brothers or sisters | A | B | C | D | E |
| 3. | Other relatives | A | B | C | D | E |
| 4. | Guidance counselors | A | B | C | D | E |
| 5. | Industrial friends | A | B | C | D | E |
| 6. | Trade and industrial teachers | A | B | C | D | E |
| 7. | Teacher friends | A | B | C | D | E |
| 8. | School administrator | A | B | C | D | E |
| 9. | Military personnel | A | B | C | D | E |
| 10. | Teacher trainer | A | B | C | D | E |
| 11. | State supervisor of T&I education | A | B | C | D | E |
| 12. | State supervisor of another vocational discipline (identify _____) | A | B | C | D | E |
| 13. | College placement personnel officer | A | B | C | D | E |
| 14. | Other (Please specify) _____ | A | B | C | D | E |
| 15. | Other (Please specify) _____ | A | B | C | D | E |
| **Experiences Which Influenced Your Decision to Become a T&I Teacher** | | | | | | |
| 1. | Visited college campuses | A | B | C | D | E |
| 2. | Visited T&I class in comprehensive high school | A | B | C | D | E |
| 3. | Visited an area vo-tech school | A | B | C | D | E |
| 4. | Read a newspaper article about T&I teaching | A | B | C | D | E |
| 5. | Read booklet describing teaching careers | A | B | C | D | E |
| 6. | Read brochure describing T&I teacher requirements | A | B | C | D | E |
| 7. | Listened to radio or TV program describing need for T&I teachers | A | B | C | D | E |
| 8. | Enrolled in high school trade and industrial class | A | B | C | D | E |
| 9. | Enrolled in high school industrial arts class | A | B | C | D | E |
| 10. | Enrolled in college technical courses | A | B | C | D | E |
| 11. | Enrolled in junior college course & associate degree programs | A | B | C | D | E |
| 12. | Participated in community youth groups (scouts, YMCA, 4-H, etc.) | A | B | C | D | E |
| 13. | Teaching experience in military service | A | B | C | D | E |
| 14. | Personal interests or hobbies (identify) _____ | A | B | C | D | E |
| 15. | Other (specify) _____ | A | B | C | D | E |
| 16. | Other (specify) _____ | A | B | C | D | E |

| | | | A. Important positive influence | B. Some positive influence | C. Little or no influence | D. Some negative influence | E. Important negative influence |
|---|---|---|---|---|---|---|---|
| **Aspirations and Opportunities Which Influenced You to Become a T&I Teacher** | | | | | | | |
| 1. | Desire to continue college education | 1. | A | B | C | D | E |
| 2. | Realization that I could get 24 semester hours credit for occupational experience | 2. | A | B | C | D | E |
| 3. | Desire to work with youth | 3. | A | B | C | D | E |
| 4. | Thought that school teaching would be an easier job | 4. | A | B | C | D | E |
| 5. | Liked the long vacation periods teaching would provide | 5. | A | B | C | D | E |
| 6. | Wanted to teach and continue other jobs part-time | 6. | A | B | C | D | E |
| 7. | Wanted an opportunity to serve society | 7. | A | B | C | D | E |
| 8. | Teaching would offer an opportunity to draw as much salary for less time at work | 8. | A | B | C | D | E |
| 9. | School administrator convinced me I would be a good teacher | 9. | A | B | C | D | E |
| 10. | State supervisor convinced me I would make a good teacher | 10. | A | B | C | D | E |
| 11. | Work in my industry was getting harder to find | 11. | A | B | C | D | E |
| 12. | Helpers for my industry were getting too hard to find, causing a burden on me | 12. | A | B | C | D | E |
| 13. | The job just opened in my area and I was available | 13. | A | B | C | D | E |
| 14. | Other (please specify) _____ | 14. | A | B | C | D | E |
| 15. | Other (please specify) _____ | 15. | A | B | C | D | E |
| **Factors Which Have Caused You to Stay in Teaching** | | | | | | | |
| 1. | My family likes my teaching position better than my skilled occupation job | 1. | A | B | C | D | E |
| 2. | I get greater personal satisfaction from teaching than from my skilled occupation | 2. | A | B | C | D | E |
| 3. | I can teach & still work part-time (moonlight) for salary supplement | 3. | A | B | C | D | E |
| 4. | The BS Degree requirement forces me to continue my college education | 4. | A | B | C | D | E |
| 5. | Getting college credit for my occupational experience | 5. | A | B | C | D | E |
| 6. | Being involved with all school activities more that non-teachers (athletics, etc.) | 6. | A | B | C | D | E |
| 7. | Not having to be involved with outside school activities | 7. | A | B | C | D | E |
| 8. | Good support from industries in my community | 8. | A | B | C | D | E |
| 9. | Strong support by the school administration and faculty | 9. | A | B | C | D | E |

| | | A. Important positive influence | B. Some positive influence | C. Little or no influence | D. Some negative influence | E. Important negative influence |
|---|---|---|---|---|---|---|
| 10. | Own my own home in this community and no industrial opportunity for me | A | B | C | D | E |
| 11. | Have less responsibility as a teacher than as a skilled worker | A | B | C | D | E |
| 12. | Have great opportunity for social advancement | A | B | C | D | E |
| 13. | Students like me and the skills I help them develop | A | B | C | D | E |
| 14. | State plan allowing me to work instead of attending college each fourth summer | A | B | C | D | E |
| 15. | Have greater responsibility as a teacher than as a skilled worker | A | B | C | D | E |
| 16. | Other (please specify _____ | A | B | C | D | E |

Factors Which May Cause You to Stop Teaching Your T&I Course

| | | | | | | |
|---|---|---|---|---|---|---|
| 1. | Salary too low for my abilities | A | B | C | D | E |
| 2. | Educational requirements too difficult | A | B | C | D | E |
| 3. | Image of trade and industrial teacher too low in my school | A | B | C | D | E |
| 4. | Responsibilities too great in my teaching field | A | B | C | D | E |
| 5. | Poor cooperation from school administrators | A | B | C | D | E |
| 6. | Student attitudes poor toward my field | A | B | C | D | E |
| 7. | Program closed | A | B | C | D | E |
| 8. | Industrial opportunities too great to resist | A | B | C | D | E |
| 9. | Teaching field not what I thought it would be | A | B | C | D | E |
| 10. | Students too difficult to control | A | B | C | D | E |
| 11. | My program used as a dumping ground | A | B | C | D | E |
| 12. | Not enough supervision to help me solve my class problems | A | B | C | D | E |
| 13. | Too many local restrictions on my program | A | B | C | D | E |
| 14. | Equipment old and worn out | A | B | C | D | E |
| 15. | Building and physical plant inadequate and no way to improve it | A | B | C | D | E |
| 16. | Program verbally degraded by counselors and other teachers | A | B | C | D | E |
| 17. | Program misused by administration (specify) _____ | A | B | C | D | E |
| 18. | Other _____ | A | B | C | D | E |
| 19. | Other _____ | A | B | C | D | E |

## SPECIAL SECTION

Recommendations for Degree Granting Innovations for T&I Teachers

Due to your unique experiences as a non-degree T&I teacher pursuing professional status. you may have special recommendations for improvements or changes the Oklahoma State University Department of T&I Education could use in helping non-degree teachers reach degree status easier and with less frustrations. Please list any recommendations for changes you may have in the order you consider most important.

# APPENDIX C

## SECOND LETTER

Oklahoma State University

DEPARTMENT OF TRADE AND INDUSTRIAL EDUCATION

STILLWATER, OKLAHOMA 74074
104 INDUSTRIAL BUILDING
(405) 372-6211 Ext. 7262

January 16, 1973

A few weeks ago you should have received a letter wherein we asked you to respond to a questionnaire about factors which have influenced you as a T & I teacher working towards a B. S. degree. Many circumstances could have intervened preventing us from receiving your response, but we still need your answers and recommendations to make our research report complete.

Please take a few minutes from your busy schedule, fill in the enclosed form and return them in the stamped, pre-addressed envelope today.

Your prompt and sincere responses will be deeply appreciated.

Sincerely,

Clyde B. Knight
Assistant Professor
TRADE AND INDUSTRIAL EDUCATION

CBK:jb
Enclosure

# APPENDIX D

## TEACHERS RECOMMENDATIONS FOR DEGREE GRANTING INNOVATIONS FOR TRADE AND INDUSTRIAL TEACHERS

The following recommendations were offered by teachers for degree granting innovations for Trade and Industrial teachers:

A. Better services from the Trade and Industrial Education Department at Oklahoma State University.

1. New teacher get with a guidance counselor and set up a course of study.
2. More courses pertinent to trade (13).
3. Less degree requirements.
4. More workshops for individual trades.
5. Less degree requirements and more professional workshops.
6. Mini courses for college credit during Christmas and Easter breaks.
7. Have more short courses in the summer months.
8. Provide courses closer to where the teacher resides.
9. College credits given for working in the trades (2).
10. Counseling for the step test.
11. More classes in youth activities.
12. Use T and I teacher trainers for teachers. Some others do not have knowledge of T & I and are hostile.
13. Keep teachers more informed of course offerings.

B. Less specific degree requirements by the University for Trade and Industrial teachers.

14. Less on campus hour requirements since it is difficult for some to go to summer school.
15. All required education courses be on the Educational TV channel (2).

16. More variety of classes offered in local areas.
17. Have more required classes at the Technical Institute on Portland.
18. Required degree subjects could be more accessible to the teacher who attends classes at night and summer.
19. Step test is foolish since we are already teachers.
20. Have more upper division courses available as night classes.
21. Increase the number of credit hours that can be taken by extension.
22. Give credit for teaching experience for six hours practice teaching (2).
23. Make health occupation degree available at OSU.
24. Last eighteen hours on campus (in residence) should not be mandatory.
25. Do not require subjects which are of no value to trade instructors.

C. Better services or requirements by the State Department of Vocational and Technical Education.

26. Once teacher is recruited, demand that they attend classes regularly to get a degree as soon as possible.
27. Require that all T & I teachers obtain degree in eight years.
28. More incentive programs to help vo-tech teacher in trade areas.

29. More current product knowledge for trade areas.

30. More demand should be placed on work in field of training (2).

31. Use more of the facilities at the State Department. Teach us more about them.

VITA 2

Clyde Belin Knight

Candidate for the Degree of

Doctor of Education

Thesis: THE EFFECT OF GRANTING COLLEGE CREDIT FOR OCCUPATIONAL EXPERIENCE UPON RECRUITMENT AND RETENTION OF TRADE AND INDUSTRIAL TEACHERS IN OKLAHOMA

Major Field: Higher Education

Biographical:

Personal Data: Clyde Belin, Jr. was born in Austin, Texas, April 3, 1931, the son of Mr. and Mrs. Clyde (NMN) Belin. The name was changed to Clyde Belin Knight in 1952.

Education: Graduated from Elmore City High School, Elmore City, Oklahoma in 1949; received the Bachelor of Science degree in Education from East Central State College, Ada, Oklahoma with a major in Industrial Arts and a minor in Biological Science in May, 1952; attended University of Oklahoma, Norman, summer session of 1957 on a National Science Foundation Grant; received the Master of Science degree with a major in Trade and Industrial Education from Oklahoma State University in August, 1961; completed requirements for the Doctor of Education degree at Oklahoma State University in July, 1974.

Professional Experience: Industrial Arts and Biology teacher, Stratford High School, Stratford, Oklahoma, 1952-1958; Trade and Industrial Carpentry instructor, Shawnee High School, Shawnee, Oklahoma, 1958-1966; Summer instructor in Trade and Industrial Education for Oklahoma State University, 1962-1966; Assistant Professor of Trade and Industrial Education for Oklahoma State University, 1966-1968; Chief of Party and Curriculum Specialist for Oklahoma State University Team in Thailand, 1968-1971; Assistant Professor of Trade and Industrial Education, Oklahoma State University, 1971 to present.

Professional Organizations: Oklahoma Education Association, American Vocational Association, Oklahoma Vocational Association, Phi Delta Kappa, Alpha Psi Omega, National Association of State Supervisors Trade and Industrial Education (NASSTIE), and Higher Education Alumni Council of Oklahoma.