A STUDY OF EMPLOYER SATISFACTION WITH GRADUATES OF OKLAHOMA STATE UNIVERSITY SCHOOL OF TECHNOLOGY

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PREFACE

This study could not have been completed without the advice and assistance of many persons, especially Dr. James Bose, Director, School of Technology, Oklahoma State University, who authorized the study. The investigator particularly wishes to express his sincere appreciation to his major adviser, Dr. Lloyd Wiggins, and other committee members, Dr. Wayne Lockwood, Dr. Donald Phillips, Dr. Kenneth St. Clair, and Dr. John Susky for their advice and guidance in the preparation of this study.

The investigator wishes to dedicate this study to his wife, Charlene and their three children, Douglas, Arlyn, and Kenton without whose cooperation and sacrifice, this program could never have been undertaken.

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CHAPTER I

INTRODUCTION

As accountability has become more important, it has become apparent that educators in the technical areas should work closely with those to whom they are accountable, the employers of graduates. For the most part, follow-up studies have been designed to establish whether graduates were employed, and if so, whether in related or unrelated fields. This information is useful for public relations purposes, but it does very little in projecting needed directions for changes in instruction.

The graduates' utilization of their training and the nature of the situation in which the employer and employee interact must be considered in program planning. Satisfaction of the employer is not wholly determined by how competent the employee is in his skills, but also how he adjusts and interacts socially in his work group and with his supervisor. In many instances, a dissatisfied employer will also indicate a dissatisfied employee. Many aspects of technical training programs need to be evaluated to enable educators to better prepare students for the day-to-day interactions that are so important in the world of work. With feedback from employers, instructional needs can more easily be identified and changes incorporated into the program. If communications can be kept open between employers and educators, accountability will be strengthened.

If the college or university is to accomplish its educational purposes, it must be aware of industry's feelings toward its graduates. Venn (1967) has stated:

> Guidance, placement, and follow-up must become a recognized responsibility of all schools and colleges if education is to achieve its purposes in a technological society. One of the major "uses" of education is in the world of work. Education not put to use has no value (p. 4).

Follow-up programs should become an integral part of a training program. Those in charge of the program must be aware of the needs of employers and workers; and in order to stay up-to-date of those needs, educators must remain in close contact with the industry served.

Statement of Problem

In order to evaluate training program effectiveness, administrators of programs training students for entry into the technology field, ought to have information available to determine if the training being given is meeting the occupational training demands of industry.

Purpose

The purpose of this study is to examine employer satisfaction with graduates of technical occupational training programs in regard to performance, conformance, dependability, personal adjustment and general satisfactoriness.

Research Questions

To satisfy the purpose of this study, the following research questions were formulated:

1. Is there a significant correlation between the socio-economic status of graduates in regard to general satisfactoriness between employers and graduates?
2. In regard to age of graduates, is there a significant correlation between graduates' self evaluations and employers' evaluations of the graduates' general satisfactoriness?
3. How do the employer and employee perceive the employee's performance as compared to others in the employee's work group?
4. What is the employer and employee perception of the employee's conformance as compared to others in the employee's work group?
5. How do the employer and the employee perceive dependability of the employee as compared to others in the employee's work group?
6. What is the employer and employee perception of the employee's personal adjustment on the job as compared to others in the employee's work group?
7. How do the employer and employee perceive the general satisfactoriness of the employee as compared to others in the employee's work group?

Assumptions

This study was based on the following assumptions:

1. That occupational success is the employee's satisfaction with his employment and the employer's satisfaction with the employee.
2. That the raw score from the questionnaire returned by the employer represents, based upon job satisfactoriness ratings

established by the Minnesota Satisfactoriness Scales, how the employer feels about the employee-graduate in regard to satisfactoriness.

Limitations

This study was limited to the resources and time span available to the researcher at the time of this study.

Limitation as to Study Population

The population for this study was limited to the December, 1973 through July, 1975 graduates of the Oklahoma State University School of Technology and their employers.

Limitation of Time

This study was developed and results based on the information returned by respondents for the period of February, 1976 through April, 1976 and not for any other time frame.

Definitions

To avoid possible misinterpretation, some terms used in this study are defined:

1. Graduate or Employee--an individual who has completed a four-year baccalaureate degree in technology at Oklahoma State University who is employed or has been recently employed.
2. Employee Satisfactoriness--an individual's self-evaluation of job satisfactoriness as an employee as measured by the Minnesota Satisfactoriness Scales.

3. Employer Satisfactoriness--see Job Satisfactoriness.

4. Job Satisfactoriness--an evaluation of an individual's satisfactoriness as an employee as measured by the Minnesota Satisfactoriness Scales which have been determined by the employee's immediate supervisor. (The definition will be used interchangeably with the term "Employer Satisfactoriness" in this study).

5. MSS--Minnesota Satisfactoriness Scales

6. Vocational Education or Occupational Education--programs that are designed to prepare individuals for gainful employment as skilled workers or technicians or semi-professionals in recognized occupations and in new and emerging occupations or to prepare individuals for advanced technical professional programs.

7. Technology (Technical) Education--education to earn a living in an occupation in which success depends largely upon technical information and understanding of laws of science and principles of technology as applied to modern design, production, distribution and service. Technical education prepares for the occupational area between the skilled craftsman and the professional person, such as the engineer or scientist (Combined Glossary, 1974).

CHAPTER II

REVIEW OF LITERATURE

The following chapter contains a review of the literature associated with occupational concepts that lead to occupational success. One finds certain patterns emerging from various studies conducted under such titles as job success, occupational success, work adjustment, success in the world of work, achievement, performance, conformance, dependability, satisfaction, and satisfactoriness.

For the purpose of this study, the review of literature is subdivided into four basic sections as follows:

1. Accountability
2. Occupational and Job Satisfaction
3. Performance Appraisal
4. Job Satisfactoriness

Accountability and Performance of Occupational Training

Cohen (1969) states that unskilled workers become less important as technological society grows more complex. There are few jobs available for graduates who possess no other training.

Educational institutions must impart essential skills to all students according to Bloom (1968) for them to be able to perform in the world of work.

Cohen (1969) recognized the need for the community's unfilled promises of accountability by stating:

> Administrators can supervise...and make assistance available, but instructors must implement the process. If teachers refuse to spell out or to accept accountability, the enterprise will not succeed (p. 201).

Drucker (1968) in his book, The Age of Discontinuity, states:

> The term "productivity" as applied to the worker is fairly recent usage. For the manual worker, a job was, above all, a "livelihood." That jobs ought also to satisfy people is a brand new idea. The belief of so many critics of the industrial system that pre-industrial work was satisfying is naive nostalgia (p. 289).

Occupational education has gone through periods of change and has been forced to give attention to the individual. Drucker (1968) further indicates that education must change its methods and instructional strategies in order to be successful. He feels that we will have to replace today's vocational training by the education of technologists. This will have to be general education, indeed, in the true sense a liberal education. It should be a cornerstone of tomorrow's education for everybody.

Moore (1969) believed that certain behavior will lead to positive consequences for the employee and he will sustain this behavior. He gives one principle....that the more similarities between the job and the training situation, the more likely the employee is to perform as he is trained. Obviously some type of training is needed before an employee can be expected to perform satisfactorily, but once he has been trained, the problem becomes one of maintaining his level of performance.

In discussing the relationship of occupational success with the quality and objectives of the training program an employee has completed,

Mager (1962) indicates that this can be accomplished by describing the criterion of acceptable performance. He established his point of view when he states:

> If you can specify at least the minimum acceptable performance standard against which to test your instructional programs; you will have a means for determining whether your programs are successful in achieving your instructional intent. What you must try to do, then, is to indicate in your statement of objectives what the acceptable performance will be, by adding words that describe the criterion of success (p. 4).

Rhodes (1969) contends the answer to the social and economic problem is a job for <u>everyone</u>. This goal has two important elements:

1. Employment opportunities
2. The ability of each job seeker to perform successfully.

He further cites that greater stress be placed on the necessity of occupational and technical training to equip society with individuals for the jobs that the economy provides.

Most of the definitions of accountability used in education refer back to either Webster's dictionary (1971), "the condition of being accountable, liable, or responsible" (p. 6) or to Lessinger (1970) who defines it as "the process designed to insure that an individual can determine if the schools are producing the results promised or independent, unbiased review, feedback, and report of effectiveness" (p. 52).

Schaefer (1973) implies that one gets what one deserves and that, whether vocational educators like it or not, they have asked for accountability. He further states:

> The frustrating part of it is that in Pedagogy, the measures are not of a quality and quantity dimension. The amount of work produced in education cannot be measured as simply as it can in an occupational sense (p. 25).

Schaefer also claims we lack the instrumentation to carry out accountability:

> There have been some high-spots in the process, such as the follow-up of graduates to show job placement, and when it comes to achievement measures that can be applied to students before leaving our programs, we are as guilty as our academic colleagues of stooping to mere social advancement (p. 25).

It appears that what is needed are acceptable achievement tests for both theory and performance.

Tolenen (1973) raises the discussion of attitudes of the trainee:

> If a youth or unemployed adult is to be adequately trained to fill a job need, it is necessary to provide him with more than the required job skills; attitudes it is being found, are equally important (p. 32).

Tolenen points out that occupational education has always had to live with the direct measure posed by the question: Can the student do the job?

Occupational Success and Job Satisfaction

When one views the literature concerning occupational success which has taken place over the years, one finds it difficult to pin down the exact criteria which are involved in defining success on the job.

Clark (1963), for example, has placed great emphasis on one particular criterion, such as life earnings as being the major indicator of vocational success. Others have used such things as credit rating, number of civic organizations or social clubs to which one belongs or output on the job.

Super (1951) points out the close relationship between occupational success and vocational adjustment. In fact, he seems to feel that the two terms can be interchangeably used to indicate worker success on the

job. This does not seem to be an illogical idea in light of the fact that if one does not adjust to his job, he will very likely impair any success he might have on the job.

Discussing the relationship between employee adjustment to the working environment and vocational success or job satisfaction, Super (1957) indicated his belief that vocational success is measurable against multiple criteria by the statement:

> Vocational success may be judged by the efficiency of the individual's performance on the job, by the monetary and prestige rewards accruing from his work, and by the place which he makes for himself in his occupation and on the occupational ladder (p. 20).

The opinion is expressed that there are different positions from which to view occupational success as it relates to job satisfaction when they stated:

> Success by one of these criteria can be judged from the perspective of the individual, from that of important other persons in his environment, such as his supervisor, his peers, and his family, or from that of the community in general (p. 102).

But several years after Super wrote the Criteria of Vocational Success, he found various criteria used by investigators in their attempts to find variables that would adequately measure success or job satisfaction. Super (1957) listed such criteria as employer ratings, stability, advancement, output and earnings, and rating of supervisors. He indicated that vocational success and job satisfaction can be individually or in combination as indicators of just how successful an individual was on his job. His investigation indicates that there is no single criterion of success leading to vocational success because of the necessity of varying the criteria selection in accordance with the purpose one has in mind.

Rasche (1956) went so far as to make the following statement concerning criteria for vocational success:

> A criterion of success is a test by which a judgment can be formed of an individual's success in the work at which he is employed. Since such criteria have been and are being established by both scientific investigators and practical administrators in occupational life, third parties such as educators and placement officers will have to recognize the criteria of success established by those two types of observers for any given kind of job or occupation (pp. 936-37).

Boggs (1967) found three primary patterns associated with the concept of vocational success. These patterns are: (1) vocational success can be viewed from three different positions--personal success viewed by the individual worker, successful performance viewed by the employer, and success as viewed by society; (2) there are conflicting opinions as to whether a single criterion or multiple criteria better measure vocational success; and (3) both objective and subjective criteria have been considered adequate measures of vocational success.

Scott (1950) describes success on the job through the use of five factors which she defines as follows:

1. Occupational Progress: Upward progress towards increasing responsibility. It may be measured in terms of profit, wages or income derived from occupational activities in terms of promotion, or possibly in the attainment of special fame.
2. Occupational Competence: The satisfactoriness with which the worker performs his duties.
3. Occupational Satisfaction: The sense of well being experienced by the worker himself. In the main it should refer to emotional satisfaction, the enjoyment of the work, the finding of interest in it.

4. Occupational Fitness: The adequate matching of the person and the job.

5. Occupational Adjustment: Occupational fitness accompanied by an acceptance of his fitness by the individual.

According to Scott, the assessment of vocational success involves the assessment of the above five criteria.

Related to the problem of the establishment of criteria on which to judge vocational success is the question concerning vocational success being an integrated whole composed of inseparable parts or its being of such a nature that its parts can be isolated into separate factors.

Crites (1965) points out that even though there is a small number of reliable findings concerning the prediction of vocational success, what reliable findings there are seem to be consistent with a hierarchical model of vocational success which includes a general factor of overall vocational success, several related group factors such as social relations and technical job knowledge, and some specific factors which are unrelated to each other or the dimensions but which may be related to certain non-vocational variables. Here again, the argument seems to appear which favors vocational success as an integrated whole composed of interacting dependent factors.

Davies (1950) describes five categories of criteria which have been used to assess occupational success:

1. Objective records of individual performance;
2. Difference between group of known characteristics;
3. Results of examinations of tests of knowledge and skills;
4. Grades and assessments; and
5. Objective records of group performance.

Davies believes that these categories of criteria along with factors such as earnings and symbols of status have their place in studies of job success, but actually the assessment of occupational happiness and success concerns feelings and attitudes.

> Conventional yardsticks, such as earnings or symbols of status, may well have their place in studies of success. But success or failure, as benefits such emotional-tuned words, rest on an emotional basis. Success suggests the feelings of satisfaction consequent to appreciation; failure, the feelings of distress consequent upon recognized inadequacy (p. 16).

In the main, job success, according to Davies, is based on feelings the individual has about himself, feelings his peers have about him, and feelings his superiors have towards him.

Hoyt (1968) used a global approach to establish a criteria composing vocational success. He suggests in his discussion concerning successful transition from school to work by the vocational student, that there will be a higher proportion of those who demonstrate a more successful transition who:

1. Secure employment;
2. Secure training related jobs;
3. Are certain this is the best occupation for them;
4. Are satisfied with their jobs;
5. Receive primary intrinsic as opposed to extrinsic rewards from their jobs;
6. See themselves using skills learned in schools to succeed on the job;
7. Are able to increase their economic earnings after training;
8. Are judged to be satisfactory workers by their employers;

9. Are able to remain employed after leaving school for work; and
10. Have job experiences, following training, which show progress in job earnings and level of employment.

One of the major concerns with vocational psychology and counseling has been to describe and predict the adjustment to work. One project, The Work Adjustment Project, conducted at Minnesota University from 1964-1972, was a continuing series of research studies on the general problem of adjustment to work. The project was concerned with the problems of assessment and program evaluation. Instruments to measure variables in the theory in testing and predicting tenure on the job were the significant outcomes of the project. Dawis' (1968) findings concluded that as an individual matures, his experiences broaden and he develops basic sets of abilities and needs.

> Abilities are basic dimensions of response capability generally utilized by the individual. Needs are preferences for responding in certain stimulus conditions which have been experienced to be reinforcing. Abilities and needs are the major variables that define the work personality (p. 9).

Dawis stated a proposition to be that an individual's work adjustment at any point in time is indicated by his concurrent levels of satisfactoriness and satisfaction. Satisfactoriness is a function of the correspondence between an individual's abilities and the ability requirement of the work environment provided that the individual's needs correspond with the reinforcer system of the work environment.

Dawis concluded that if the individual has substantial tenure, it can be inferred that he has been fulfilling the requirements of the work environment and that the work environment has been fulfilling his requirements. If the worker fulfills the requirements of the work environment, he is defined as a satisfactory worker. Satisfactoriness

and satisfaction indicate the correspondence between the individual and his work environment. Dawis used such variables as performance, conformance, dependability, and personal adjustment as criteria of satisfactoriness.

Super (1951) in his discussion concerning the need for a new term as vocational adjustment to replace vocational success, which he feels has been overused to the point of denoting several different meanings, seems to coincide with Davis's (1970) Minnesota Study's view of work adjustment as being an integrated whole when he states that vocational adjustment implies that the individual has the opportunity to express his interests, use his abilities, achieve his values and meet his emotional needs.

Super (1957) later states that even though efficiency ratings have one advantage over some of the more objective criteria such as output, they provide a broader and more comprehensive estimate of achievement.

Celebreese (1963) indicated the necessity for a multiple criteria in the measurement of occupational success when he stated:

> The criteria for an adequate evaluation of the Manpower Program should be how well the trainees perform their jobs, how long they keep their jobs and how well they fit into the new environment in which their upgraded skills place them (p. 3).

The sociological criterion of status was discussed in a relationship to success when Von Stroh (1968) stated:

> A man's occupation in American society is presently his single most important status-conferring role. Whether the job be a high or low status job, it allows the individual to form some stable conception of himself and his position in the community which he lives (p. 32).

Job Satisfaction

The Work in America report (1972) by the Secretary of Health, Education and Welfare, reported findings of:

> Significant numbers of American workers are dissatisfied with the quality of their working lives. Dull, repetitive, seemingly meaningless tasks, offering little challenge or autonomy, are causing discontent among workers at all occupational levels (p. 17).

They report that the discontent of women, minorities, blue collar workers, youth, and older adults would be considerably less were these Americans to have an active voice in decisions at the work place that most directly affect their lives.

The main theme of the HEW study is that the primary cause of dissatisfaction among white and blue-collar workers is the nature of their work. "The redesign of the job is the keystone of this report," (p. 18) it says, with the purpose that work must become meaningful to the workers.

This much publicized study, Work in America cites a Gallup Poll which found that eighty to ninty percent of American workers are satisfied with their jobs. The agreement on worker satisfaction it seems is on opposite view-points among researchers.

Worker opinions on the enrichment of jobs are expressed by Winpisinger (1973), a prominent labor leader:

> In my years as a union representative and officer, I've negotiated for a lot of membership demands....I've been instructed to negotiate on wages...noise,...seniority clauses...fought for health and welfare plans...and everything else you will find in a modern labor management contract. But never once have I carried into negotiations a membership mandate to seek job enrichment. In fact, quite to the contrary, working people want management to leave their jobs alone (p. 5).

From the above discussions, it is difficult to define the exact criteria which are involved in vocational success or, in fact, to state positively which approach to vocational success, the integrated global approach or the independent criteria approach, works best in the assessment of job success, even though the global approach seems to have more research and opinion support. Perhaps, it would be better to utilize the criteria and approach which best apply to a particular group of individuals in a particular group of occupations. This would seem a more logical means to utilize in the assessment of vocational success or adjustment, since so much confusion seems to exist concerning the criteria and how they are to be used in measuring success on the job for all individuals.

Research pertaining to occupational success of graduates from post-high school private vocational schools and public institutions of higher education are not to be found in great abundance.

Samelson and Pearson (1959) conducted a follow-up student of graduates from the Salt Lake Area Vocational School who had left the school during the period from 1953 to 1959. Their sample consisted of 100 students who had left the school during this time. Of the 100 students, 59 had completed all their training program, while 41 had not. They found that 50 percent of those students who had completed their training were in training related jobs, while only 20 percent of those who had not completed their training were in training related jobs. When these students were asked whether or not they were satisfied with their present jobs, 69 percent of those who completed training said they were satisfied and 71 percent of those who had not completed training stated they were satisfied with their present work.

The results of this study seem to indicate that in terms of the two criteria of vocational success on which findings were given, those students who completed training were more vocationally successful as far as entry into training related jobs was concerned. But when job satisfaction was used as a criterion of vocational success, there was little difference between those students who completed training and those who did not.

Record of achievement after high school is encouraging with reports of employment rates from a follow-up study of June, 1971 graduates from two technical schools in the St. Louis area. Findings were given of 53.4 percent employed in occupations for which they were trained or in closely related fields. Another 5.5 percent took post-secondary training in junior and community colleges or in trade schools, while 31.7 percent were employed in other occupations, in the military service, or otherwise not available for employment. Most were making salaries comparable to persons with four-year college degrees.

Lemley (1970) investigated the employer and employee satisfaction of 1966-67 vocational-technical graduates from the Tulsa Vocational-Technical Center. Instruments used for the purpose of collecting data were the Ford Foundation Youth Opportunity Study Follow-Up Form and the Goertzel Employer's Rating Scale.

The variables were grouped into five major categories of:

1. Housing and marital status;
2. Employment and income status;
3. Job satisfaction report;
4. Influence of training and job opportunities; and
5. Additional education and technical training report.

The study seemed to support a general conclusion that the 67 subjects who received vocational-technical training at the Tulsa Center enjoyed a great degree of occupational success and job satisfaction. The results also seemed to indicate that the subjects with the longest employment tenure could expect the highest employer's evaluation on the Goertzel Rating Scale. This suggests a continued educational growth of each employee after he enters the labor market. Only two percent of the subjects received additional basic training from their employers. An equally low percent indicated a need for on-job-training prior to actual employment.

A study concerning private trade schools in Missouri during the years 1944 through 1951 was done by Bibb in 1952. He reported that 80 percent of the graduates who returned the questionnaire stated that they were employed in training related jobs. The employers of these graduates indicated that these graduates' occupational success compared favorably with other employees who had been in similar trades for approximately the same length of time.

A study using 133 graduates of the two-year business program from the Agricultural and Technical Institute at Cobbleskill, New York, was conducted in 1960. This study reported that 79 percent of the graduates entered training related jobs after graduation. Eighty-two percent of the graduates reported that they were satisfied with their present jobs. This result included only those students who had graduated between the years 1952 and 1958. The 1959 graduates were not polled on job satisfaction. Job stability was assessed for the 1952 through 1958 graduates on the basis of how many different employers these former students had had since leaving school. Eighty-one percent had held two positions or

less since leaving school, while 19 percent had held three different positions or more since leaving school. Based on the three criteria pertaining to vocational success reported here, it would seem that the conclusion should be reached that these students show a definite indication of vocational success.

The following group of research studies are based on results which were obtained from subjects involved in the Specialty Oriented Student Research Program at the University of Iowa.

Hoyt (1964) reported findings based on follow-up information for the years 1961, 1959 and 1957 collected from 156 private trade and technical school students and 124 private business school students. Among his findings are several results which are related to the criteria of vocational success. He found that for the year 1957, 67 percent of the trade and technical school students and 85 percent of the business school students reported they were in training related jobs. For 1959, these percentages climbed to 71 and 91 respectively. In 1961 results did not vary much from those of 1959, with 73 percent of the trade-technical students and 87 percent of the business students stating they were in training related jobs. When asked how satisfied they were in their present jobs, it was found that 82 percent of the trade-technical students and 86 percent of the business students in 1961, 80 percent of the trade-technical students and 62 percent of the business students in 1959, and 86 percent of the trade-technical students and 100 percent of the business students in 1957 reported they were satisfied with their present occupations. Percentages of trade-technical students reporting that they felt their present jobs were the ones for which they were best suited were 74 percent for 1961, 57 percent

for 1959, and 53 percent for 1957. The percentages for business students concerning this same item were 85 percent for 1961, 78 percent for 1959, and 66 percent for 1957.

Basing conclusions on the three criteria of vocational success stated above and for the three years involved in the study, it would seem that it could be stated that the former students who participated in this study were vocationally successful.

In a study similar to the one just reported, Hoyt (1968) used former students from private trade, technical, and business schools who had left these schools in the 1963-64 school year. He found that 71 percent of the trade-technical students and 83 percent of the business students reported that they were satisfied with their present jobs. When these former students were asked the question concerning job certainty, 69 percent of both the trade-technical and business school students stated that they were certain that their present work was the best for them. When job stability was assessed on the basis of length of time in the present job, it was found that 65 percent of the trade-technical students and 61 percent of the business students had been employed in their jobs for one year or more. As with the first study reported by Hoyt, conclusions based on the four vocational success criteria reported above would seem to indicate vocational success for the students involved in this study.

In a follow-up study which used responses from 582 former students of public post-high school vocational education programs in Iowa during 1964-65, Cox (1968) reported three findings which pertained to the criteria of vocational success. Eighty-two percent of the respondents said they were in training-related jobs. Job satisfaction was the

second finding which had implications for vocational success. Seventy-two percent of the former students reported that they were satisfied with their present work. The third result concerned job certainty with sixty-four percent of the respondents stating that they were certain that their present jobs were best for them. The results contained in the three criteria would indicate a degree of vocational success for those students who responded to the follow-up questionnaire.

Cox (1968) compared the responses given by private and public post-high school Specialty Oriented Electronics students. The comparisons are made between samples of 365 private electronics students and 147 Iowa public electronics students. It was found that 73 percent of the private electronics students were in training related jobs at the time of the investigation. Sixty-three percent of the private school students and 58 percent of the public school students said that they were satisfied with their present jobs. When these former students were asked if they were certain that their present jobs were the ones which were best for them, 59 percent of the private electronics students said they were certain, while 53 percent of the public school electronics students reported that they were certain. From these results, one could conclude that the differences between the two groups on these criteria of vocational success are small and that the findings indicate that the majority of former students from both groups attained some measure of vocational success on their jobs.

The research discussed in this section seems to be somewhat in greater abundance than that in the other sections. However, the findings should not lead one to believe that large volumes have been carried out in this area. It does seem as though the research reported here

indicated that those students who attended post-high vocational or technical schools have a greater degree of occupational success.

Performance Appraisal and Its Influence on Ratings

Every ambitious young man who completes his formal education and takes a job knows that he, his work, and his potential for future growth will be frequently appraised by his employer. The appraisal will usually be in the form of observations made of the employee's behavior in daily work situations. The employee will not have his specific tasks or time-period accomplishments graded as in school.

Hepner (1970) gives the following uses of appraisals: (1) merit increase, (2) to select employees for promotion and transfer, and (3) to provide a basis for a constructive interview with the employee.

Spriegel's (1969) survey of company practices in the appraisal of employee performance indicated that 343 of 567 reporting companies had appraisal programs for employees at the general-foreman level or below.

The choice of forms to be used should be determined by the main purpose of the rating system. Spriegel's survey indicated that two of the purposes, counseling and training development, require executives to think through the strength and weakness of the ratee. Most of the other purposes indicate that appraisals are used in decision making as in promotions, discharges, and salary administration.

Drucker (1968) contends that three criteria are required to enable a worker to be responsible to achieve or succeed on the job:

1. Productive work--the job has to make achievement possible.
2. Feedback information--on his own performance.

3. Continuous learning--need not be organized as a formal session, but always needs to be organized: "What have you learned that can make your job and the job of all of us more productive, more performing, and more achieving?"

Ronald Taft (1955) reviewed the literature concerning the ability to judge others and described five different types of methods of measuring this ability. He found that the following characteristics appear to be related to the ability of a person to judge the personality characteristics of others:

1. High intelligence and academic ability. This is positively related to ability to determine another's characteristics analytically, but not to non-analytic ways of judging. Probably perception and attitude are more important in determining the latter than abstract intelligence.
2. Emotional adjustment. The better adjusted person is the better judge.
3. Insight into one's own status. Evidently those who can rate themselves accurately on individual traits can also rate others fairly well.
4. Social orientation. Good judges of others have a greater social orientation than the poorer judges.
5. Social skill. The ability to predict how subjects will respond to opinion items is consistent with measurement of social skills such as leadership, salesmanship, and popularity. This might also be due to projection on the part of the skilled people.

Kirchner and Reisber (1962) stated the better the supervisor, the more likely he is to discriminate between good and poor employees and

the less likely he is to be subject to the leniency effect. This makes sense since supervisory ability is, in part, a function of intelligence.

Biere (1961) conducted a study which reported that the higher the self-esteem of the person being evaluated, the more likely he is to try to ingratiate himself with the evaluator and secure a favorable rating for him. Further, the higher the cognitive complexity of the rater, the more likely he is to differentiate between others.

Korman (1971) describes the following about rating characteristics. Besides these characteristics, there is little information available as to what makes a good rater in terms of accuracy, what makes a person get a good rating, and what influences one person to give another a good rating. Korman gives an example where in each of the following questions we can see how a rating might be influenced by the characteristics of a specific rater and/or ratee. Yet, we have little reliable information about any of them.

1. Do raters with a high desire for certainty and structure rate better when using a structured rating scale format than when using an unstructured, overall judgment approach?
2. Do people who have trouble accepting the notion of authority and superior-subordinate relationships extend this lack of acceptance by reacting in a less satisfactory manner than those who are generally more accepting of authority?
3. Using the same notion of acceptance of authority, does this affect the behavior in the performance evaluation situation of those being rated?

Since one might also ask how these factors, as well as others, might affect the general level as well as the quality of ratings, it

seems clear that there is much yet to be learned about those personal and social factors which might influence the rating and evaluation process.

Job Satisfactoriness

In 1957, The Minnesota Studies in Vocational Rehabilitation known as the Work Adjustment Project was begun (Carlson, Dawis, England, and Lofquist, 1967). It has been a continuous series of research studies on work adjustment problems relevant to vocational rehabilitation services. One of the objectives of the study was to develop diagnostic tools for assessing the work adjustment potential of applicants for vocational rehabilitation. The Theory of Work Adjustment was developed. This theory used the correspondence between the work personality and the work environment as the principal reason or explanation for observed work adjustment outcomes of satisfactoriness, satisfaction, and tenure. The theory revealed that vocational abilities and vocational needs are the significant aspects of the work environment. Work adjustment depended on how well the worker's abilities corresponded to the ability requirements and how well his needs corresponded to the reinforcers available in the work environment.

Work Adjustment Project research was directed at testing the usefulness of the theory in working with rehabilitation clients. It was shown that vocational needs were measurable and could be measured separately from measured satisfaction. In addition, it was demonstrated that satisfaction in a variety of work environments could be predicted. It was further demonstrated that satisfaction and satisfactoriness are measurable indicators of work adjustment and that they could be measured

independently of each other. The research has shown that there are individual differences in jobs with respect to the reinforcers available for the satisfaction of needs.

As a result of the research, questionnaires (The Minnesota Satisfaction Questionnaires and The Minnesota Satisfactoriness Scales) measuring satisfaction and satisfactoriness with several specific aspects of work and work environments were developed. They met the accepted standards for reliability and showed evidence of validity.

In reviewing the literature concerning the needs of the non-traditional students, it was learned that the student's evaluation of job satisfaction was not synonymous or correlated with job performance or satisfactoriness as determined by the employer. This was substantiated by Carlson, Dawis, England, and Lofquist (1967), McCulloch (1974) and Gass (1975). All the reviews found that job satisfaction cannot be used as a measure of job satisfactoriness.

CHAPTER III

METHODOLOGY

The review of literature completed, this chapter provides the procedures, materials, and methods of analysis used in the present study. It gives a description of the sample used; descriptive data about the instruments used; a description of the way in which the data were collected; and a description of the way in which the data were analyzed.

Preliminary preparations for the study were begun in the fall of 1975. Collection of data from individual subjects was begun in the first part of February, 1976. All the data were collected by the latter part of April, 1976. At that time the Computer Center at Oklahoma State University was utilized for the computation of the analysis of the data.

Study Population

For this study, the subject group was comprised of all graduates of Oklahoma State University School of Technology for the periods of December, 1973 through May, 1975, and those individuals or companies which employed them.

Methodology

In order to carry out this investigation, it was decided that because of the large number of persons involved, the vast geographic

area to be covered, and the limitations of time, that a mailed questionnaire would be the most effective method of data collection.

Because of the Buckley Amendment, it was necessary to obtain permission from Oklahoma State University legal counsel before records of graduates could be obtained for research purposes. Permission was granted with the stipulation that prior to research involving any employer evaluation of an Oklahoma State University graduate, permission must first be obtained from the graduate. Based on these requirements a questionnaire was sent to the graduates along with a permission statement authorizing an employer evaluation by an immediate supervisor whose name and address was stated by the graduate.

In this study, the questionnaire with a cover letter and an enclosed self-addressed stamped return envelope was sent to the graduates of the Oklahoma State University School of Technology on February 12, 1976. Non-respondents were mailed a reminder post card 30 days later. Twenty-eight days following the reminder card, a third questionnaire with a cover letter was mailed. Graduate returns were examined to ascertain if the respondents were currently employed. For those graduates who indicated that they were or had been employed and gave their immediate supervisor's name and address along with the signing of the permission statement, an employer questionnaire was sent to the employer. After a 30 day period, a follow-up letter and questionnaire were sent to the non-responding employers.

The data after collection was organized into subject groups both by employer and employee and submitted to appropriate statistical treatment.

Selection of the Instrument

The review of literature showed that there was no indication of correlation between employee evaluation of job satisfaction and employer evaluation of employee satisfactoriness, therefore, the instruments used dealt only with employee self-evaluation of his satisfactoriness on the job and the employer's satisfactoriness evaluation of the employee.

In determining the employer satisfactoriness of the Oklahoma State University graduates, the Minnesota Satisfactoriness Scales were selected.

Minnesota Satisfactoriness Scales

The MSS is a 28-item questionnaire designed to assess the satisfactoriness of an employee. It is designed to be completed by the employee's immediate supervisor. According to the manual it takes about five minutes to complete which makes it feasible to administer by mail. (See Appendix B).

The MSS yields a score on General Satisfactoriness and four other scales--Performance, Conformance, Dependability, and Personal Adjustment. The General Satisfactoriness scale was comprised of all 28 items, whereas the other scales were sets within the 28 items.

Table I was derived from information taken from the Manual for the MSS. It shows the Hoyt Reliability Coefficient to be from .92 to .95 for General Satisfactoriness. The employee group being rated in this study were professional, technical, and managerial.

TABLE I

HOYT RELIABILITY COEFFICIENT MSS

Group	Perform-ance	Conform-ance	Depend-ability	Personal Adjust-ment	General
Professional Technical & Managerial	0.90	0.80	0.69	0.83	0.92
Clerical and Sales (Male)	0.91	0.87	0.69	0.82	0.94
Clerical and Sales (Female)	0.89	0.86	0.78	0.88	0.94
Service	0.90	0.90	0.77	0.87	0.95
Machine Trades & Bench Work	0.91	0.88	0.74	0.87	0.94
Workers-In-General	0.90	0.85	0.74	0.85	0.94

SOURCE: Manual for the MSS, pp. 39-49

Concerning validity the manual states,

> There is some evidence that the MSS is a valid measure of satisfactoriness. Among satisfied workers, those who were rated above the median on Performance were more likely to continue on the job over a two-year interval than those rated below the median. MSS scores were also related to age of employees in meaningful ways. Conformance and Dependability scores increased with age. General Satisfactoriness and Performance scores were highest for those between the age extremes of very young, and hence, inexperienced, or old, and hence past their prime. Furthermore, MSS scores were independent of measured satisfaction, in accordance with assertion of the Theory of Work Adjustment (p. 27).

The MSS Questionnaire was modified to be used by the graduates as a self-evaluation as to job satisfactoriness. The same 28 questions were asked the employers in evaluating the graduate-employee as to job satisfactoriness.

Independent Variables

The following variables were used in the questionnaire separate from the MSS questions.

Job Title. The questionnaire requested the graduates current job title. The employer's questionnaire requested the job title when he entered employment. A code rating was given each job classification using the SES (Socio-Economic Status) rating sheet. (Appendix A).

Age. The age was requested as of the data of graduation. The information requested was to determine the ranges of ages as they relate to job satisfactoriness.

Dependent Variables

The Manual for the Minnesota Satisfactoriness Scales questionnaire was used in obtaining information in determining performance, conformance, dependability, personal adjustment, and general satisfaction, the dependent variables in this study.

The MSS can be used by an agency or a counselor in follow-up studies which evaluate the quality of counseling outcomes. It can be used to evaluate the effectiveness of job placement or the success of specific training programs. It can be used as an aid in counseling, as for example in determining a counselee's misperceptions of himself as a worker by comparing his won ratings of his satisfactoriness with those

given by his supervisor (Manual for the Minnesota Satisfactoriness Scales, 1970).

The raw scores from the questions related to job satisfactoriness taken from the MSS were recorded and used for statistical purposes. The response choices of the MSS were weighted as suggested in the manual as follows (Gibson, Weiss, Davis, and Lofquist, 1970).

Job Satisfactoriness

Response Choice	Scoring Weight
Questions 1 - 11	
Not as well	1
About the same	2
Better	3
Questions 12 - 13	
Not as good	1
About the same	2
Better	3
Questions 14 - 16	
Yes	3
Not sure	2
No	1
Question 17 - 27	
Less	3
About the same	2
More	1
Question 28	
In the top 1/4	4
In the top half but not among the top 1/4	3
In the bottom half but not among the lowest 1/4	2
In the lowest 1/4	1

Scale scores were determined by summing the weights for the responses chosen. There were 28 questions with a minimum of three for questions 1 through 27 and four for question 28; the possible total being from 28 to 85.

The MSS manual contained a table of norms that had been developed from responses by a group composed of professionals, technicians, and managers. This set of norms was used for comparative purposes as a means of analyzing and interpreting the responses obtained from graduate self ratings and employer ratings on all MSS scales. Raw scores for each MSS scale were converted to percentile scores. In interpreting percentile scores, percentile scores of 25 and below may be considered as unsatisfactory, 26 through 49 as somewhat satisfactory, 50 through 74 as satisfactory, and 75 and above as very satisfactory. The table is such that desired individuals' scores can be evaluated as to their percentile ranking in the occupational group. Table II indicates items for scoring the Minnesota Satisfactoriness Scales.

Statistical Treatment

The data retrieved from the modified MSS questionnaire were statistically analyzed by method of ranking frequency values and cumulative adjusted frequency percentages for the values of each variable being treated. This treatment was used to obtain raw score frequencies to plot against the percentage norms of the MSS for comparisons. The means for each program variable and a grand mean were also obtained for comparison purposes against the MSS norms.

TABLE II

ITEMS FOR SCORING THE MINNESOTA SATISFACTORINESS SCALES

Item Number	Perform-ance	Conform-ance	Depend-ability	Personal Adjustment	General Satisfactoriness
1	-	x	-	-	x
2	-	x	-	-	x
3	-	x	-	-	x
4	x	-	-	-	x
5	x	-	-	-	x
6	-	x	-	-	x
7	-	x	-	-	x
8	-	x	-	-	x
9	-	-	-	-	x
10	-	x	-	-	x
11	x	-	-	-	x
12	x	-	-	-	x
13	x	-	-	-	x
14	x	-	-	-	x
15	x	-	-	-	x
16	x	-	-	-	x
17	-	-	x	-	x
18	-	-	-	x	x
19	-	-	-	x	x
20	-	-	x	-	x
21	-	-	x	-	x
22	-	-	-	x	x
23	-	-	-	x	x
24	-	-	-	x	x
25	-	-	-	x	x
26	-	-	-	x	x
28	x	-	-	-	x
Minimum Score	9	7	4	7	28
Maximum Score	28	21	12	21	85

See Appendix A for specific item statements.

Blalock (1964) states,

> Partial correlation can be used in a wide variety of ways to aid the researcher in understanding and clarifying relationships between three or more variables. When properly employed, partial correlation becomes an excellent technique for uncovering spurious relationships, locating intervening variables, and can even be used to help the researcher make certain types of causal inferences (p. 23).

The Kendall Partial Correlation Coefficients, from the Statistical Package for the Social Sciences, were selected to enable measurement of causal inferences between the specific variables. This is done by excluding (controlling for) specific variables to determine a difference of significance.

CHAPTER IV

PRESENTATION AND ANALYSIS OF DATA

A description of the study participants, descriptive data about the instruments used, and the design for the data analysis were presented in Chapter III. This chapter contains the results from the analysis of the data.

There were a total of seven research questions. Questions one and two were tested using Kendall Partial Correlation Coefficients. Percentages, frequency values and grand means were used in regard to questions three through seven.

Summary of Categories

There were 306 graduates from the Oklahoma State University School of Technology four-year program that were identified for inclusion in the study. The study included graduates from December, 1973 through May, 1975. The distribution of graduates by semester is presented in Table III.

Of the 306 questionnaires sent to graduates, 42 were returned with forwarding address unknown. This gave an adjusted study group of 264 graduates. Of the 264 graduates, 85 questionnaires were returned completed. An additional 17 were returned by individuals refusing to participate. Five questionnaires were returned after the deadline of May 15 and were not included in the analysis. Of the 107 (41 percent)

TABLE III

POPULATION OF GRADUATES BY PROGRAM
AND GRADUATION DATE

Program	December 1973	May 1974	July 1974	December 1974	May 1975	Total
Aeronautical	6	13	2	7	10	38
Construction Management	3	8	2	9	5	27
Electronics	13	27	7	13	30	90
Fire Protection and Safety	0	6	0	3	14	23
General	0	5	0	3	5	13
Mechanical Design	6	15	3	6	5	35
Mechanical Power	7	16	0	10	19	52
Petroleum	1	2	1	3	3	10
Radiation and Nuclear	4	4	1	1	8	18
Total	40	96	.6	55	99	306

returns, 85 (32 percent) of the graduates were included in the study. Eighty-five questionnaires were sent to employers, with two being returned addresses unknown. The adjusted population for employers was 83. The employer return was 53 (64 percent) with three not included in the analysis because they were returned after the deadline. The total number of completed responses used in the analysis was 50 (60 percent).

The study participants were drawn from nine program areas. The frequency and percentages by program area for study participants are presented in Table IV.

Age

The age of the graduates at graduation ranged from 21 through 37 years of age with a mean age of 24.72 years. This was based on data from the 85 graduates who responded to the initial questionnaire (See Table V).

Socio-Economic Status

All graduates in the study indicated their job titles at the time the questionnaire was completed. The employer indicated whether the employee had changed job titles since starting to work. Responses were coded using a socio-economic status index developed by Duncan (1967). Appendix A contains a summary of the categories used in the Duncan Scale. The values ranged from 10 to 85, with a mean of 66.02. It should be noted that the highest score on this scale is 96. Table VI contains a summary of the scores assigned to study respondents.

TABLE IV

SUMMARY OF STUDY PARTICIPANTS

Program	Frequency	Percent of Total
Aeronautical	10	11.8
Construction Management	4	4.7
Electronics	22	25.9
Fire Protection and Safety	9	10.6
General	5	5.9
Mechanical Design	10	11.8
Mechanical Power	15	17.6
Petroleum	5	5.9
Radiation and Nuclear	5	5.9
Total	85	100.0

TABLE V

SUMMARY OF THE AGES OF STUDY PARTICIPANTS

Age in Years	Frequency	Percent of Total
21	8	9.4
22	16	18.8
23	14	16.5
24	12	14.1
25	6	7.1
26	4	4.7
27	12	14.1
28	6	7.1
29	3	3.5
30	1	1.2
35	1	1.2
36	1	1.2
37	1	1.2
Total	85	100.0

Mean Age = 24.72

TABLE VI

SOCIAL ECONOMIC STATUS OF RESPONDENTS AS RANKED BY OCCUPATIONAL STATUS INDEX

Status	Frequency	Percent of Total
10.00	1	1.2
14.00	1	1.2
24.00	1	1.2
39.00	6	7.1
48.00	1	1.2
49.00	2	2.4
54.00	1	1.2
55.00	1	1.2
58.00	1	1.2
60.00	3	3.5
64.00	1	1.2
65.00	5	5.9
68.00	2	2.4
69.00	1	1.2
70.00	34	40.0
74.00	2	2.4
75.00	10	11.8
80.00	11	12.9
85.00	1	1.2
Total	85	100.0

Mean = 66.02

The socio-economic status scores (SES) assigned to the occupational titles supplied by study participants were divided into three groups. The low SES group, with scores ranging from 10 to 69, included 27 participants (32 percent). The middle SES group had scores that ranged from 70 to 73 and included 34 graduates (40 percent). The high status SES group, with scores of 74 to 85, included 24 graduates (28 percent).

Job Satisfactoriness

General Satisfactoriness Scores (GS) were computed for the 85 usable returns. The GS scores ranged from 53 to 79, with a mean of 65.66. Fifty usable employer returns were also analyzed with GS scores ranging from 50 to 77, and a mean of 65.80 (Table XIII).

Analysis by Research Questions

The Kendall Partial Correlation Coefficient was used to test research questions one and two.

Question One

> Is there a significant correlation between the socio-economic status of graduates in regard to general satisfactoriness as reported by employers and graduate self evaluations?

The question was tested with the partial correlation coefficient between age, socio-economic status and graduation date; the respondents being an equal group of 50 graduates and employers of graduates reporting on status change since the graduate started to work. The graduates were ranked according to the Duncan Status Index (Appendix A) from a 10-85 ranking. The mean ranking was 66.02.

As shown in Table VII the correlation for SES of graduates to general satisfactoriness was 0.136 by graduate self evaluation with a significance level of 0.173 and an employer rating with a coefficient of -0.156 and significance level of 0.140. Neither met the significance level of 0.05 used in the study. It is interesting to note that although the SES was not significant in the group evaluations, there was a significant correlation of 0.020 between the SES and dependability in the graduate evaluations. It is shown in Table VIII that the correlation coefficient between the graduate and employer responses of general satisfactorines and SES is 0.518 with a significance of 0.001. This is significant at the 0.05 level used in this study.

Question Two

> In regard to age of graduates, is there a significant correlation between the graduates self evaluation and the employer's evaluation of the graduates' general satisfactoriness?

Zero-, first-, and second-order partial correlation coefficients between the GS scores derived from graduate self-ratings and employer ratings were computed, partialling out individually and in pairs the effects of age, socio-economic status and graduating date. The results from this analysis are presented in Table VIII. It should be noted that both SES and graduating date appear to have a decided influence on the correlations between the two GS scores. When the effects of graduating date or SES are partialled out, the correlations between graduate self-ratings and employer ratings increase in a positive direction. With both partialled out, the resulting partial correlation coefficient is $r = .550$. Age had no effect on the magnitude of the correlation between graduate and employer ratings. The zero-order partial

TABLE VII

SUMMARY OF ZERO PARTIAL CORRELATION COEFFICIENTS BETWEEN BOTH GRADUATE SELF-EVALUATION RATE AND EMPLOYER RATE OF PERFORMANCE, DEPENDABILITY, PERSONAL ADJUSTMENT AND GENERAL SATISFACTION AND EACH OF THE BACK-GROUND VARIABLES: AGE, SES AND GRADUATION DATE

	Age	Socio-Economic Status	Graduation Date
GRADUATE:			
PERF	0.129 df=48 S=0.187	-0.086 df=48 S=0.276	0.083 df=48 S=0.283
CONF	-0.096 df=48 S=0.254	0.092 df=48 S=0.262	0.315 df=48 S=0.013
DEP	0.087 df=48 S=0.274	0.293 df=48 S=0.020	0.378 df=48 S=0.003
PA	-0.053 df=48 S=0.359	0.211 df=48 S=0.071	0.090 df=48 S=0.267
GS	0.025 df=48 S=0.433	0.136 df=48 S=0.173	0.260 df=48 S=0.034
EMPLOYER:			
SPERF	-0.055 df=48 S=0.353	-0.121 df=48 S=0.201	0.012 df=48 S=0.466
SCONF	-0.021 df=48 S=0.443	-0.065 df=48 S=0.328	-0.006 df=48 S=0.484
SDEP	0.144 df=48 S=0.159	0.121 df=48 S=0.201	-0.022 df=48 S=0.439

TABLE VII (CONTINUED)

	Age	Socio-Economic Status	Graduation Date
SPA	0.005 df=48 S=0.487	-0.200 df=48 S=0.082	-0.159 df=48 S=0.134
SGS	0.004 df=48 S=0.490	-0.156 df=48 S=0.140	-0.055 df=48 S=0.351

TABLE VIII

SUMMARY OF ZERO-, FIRST- AND SECOND-ORDER PARTIAL CORRELATIONS COEFFICIENTS BETWEEN GRADUATE SELF-RATINGS AND EMPLOYER RATINGS OF PERFORMANCE CONFORMANCE, DEPENDABILITY, PERSONAL ADJUSTMENT, AND GENERAL SATISFACTORINESS

	Control Variables for Partial Correlation Coefficients						
	Zero Order	Age	SES	Grad. Date	Age and SES	Age and Grad. Date	Grad. Date and SES
Performance	0.599	0.611	0.594	0.599	0.607	0.615	0.595
	df=48	df=47	df=47	df=47	df=46	df=46	df=46
PERF/SPERF	S=0.001	S=0.001	S=0.001	S=0.001	S=0.001	S=0.001	S=0.001
Conformance	0.320	0.320	0.328	0.339	0.329	0.339	0.346
	df=48	df=47	df=47	df=47	df=46	df=46	df=46
CONF/SCONF	S=0.012	S=0.013	S=0.011	S=0.009	S=0.011	S=0.009	S=0.006
Dependability	0.359	0.352	0.416	0.398	0.415	0.383	0.457
	df=48	df=47	df=47	df=47	df=46	df=46	df=46
DEP/SDEP	S=0.005	S=0.007	S=0.001	S=0.002	S=0.002	S=0.004	S=0.001
Personal	0.105	0.106	0.154	0.122	1.58	0.121	0.169
Adjustment	df=48	df=47	df=47	df=47	df=46	df=46	df=46
PA/SPA	S=0.233	S=0.235	S=0.145	S=0.202	S=0.142	S=0.207	S=125
General	0.486	0.486	0.518	0.519	0.518	0.521	0.550
Satisfactoriness	df=48	df=47	df=47	df=47	df=46	df=46	df=46
GS/SGS	S=0.001	S=0.001	S=0.001	S=0.001	S=0.001	S=0.001	S=0.001

(Coefficient/degrees of freedom/significance

correlation and first-order partial correlation with the effects of age partialled out were the same ($r = 0.486$).

It is interesting to note that the correlation coefficient for personal adjustment, one of the four areas that made up the general satisfactoriness scale, is non-significant ($S = 0.235$).

Question Three

> How do the employer and employee perceive the employee's performance as compared to others in the employee's work group?

It is shown in Table IX that the employee's raw score mean for performance is 22.29, an employer mean of 21.06, and the MSS mean of 21.60. An analysis of Table IX indicates a close correspondence between the percentile equivalents of the raw score performance ratings provided by each of the three groups being compared. The most notable difference occurs in the lower deciles. A raw score of 17 would be placed in the first decile on the Graduate Scale (1st to 9th percentile), the second decile on the Employer Scale (10th to 19th percentile), and the third decile on the MSS Norms used in this study (30th to 39th percentile). Given the slightly higher mean rating and much smaller standard deviation of graduate raw scores in the comparisons to the norm group, the difference in the deciles at both ends of the scale are not unexpected.

Question Four

> What is the employer and employee perception of the employee's conformance as compared to others in the employee's work group?

TABLE IX

PERCENTILE EQUIVALENCE OF GRADUATE SELF-RATINGS, EMPLOYEE RATINGS AND MSS PROFESSIONAL, TECHNICAL AND MANAGERIAL NORM GROUP RAW SCORES ON THE MSS PERFORMANCE SCALE

	Performance		
Percentile	Graduates (Self-Evaluation)	Employers	Minnesota Satisfactoriness Scales (Norms)
90-99	26-28	24-26	27-28
80-89	25	-	26
70-79	24	23	25
60-69	23	22	23-25
50-59	22	-	22
40-49	21	20-21	20-21
30-39	20	18	19
20-29	19	-	16-17
10-19	18	16-17	14-15
1-9	17	14	10-12
Mean	22.29	21.06	21.60
S.D.	2.98	3.00	4.97
Standard Error of Measurement	0.32	0.42	1.56

It is shown in Table X that the employee's self evaluation raw score mean for conformance is 16.15. Employers evaluated the employees at a raw score mean of 16.83. The MSS conformance raw score mean was 16.29. The analysis indicates a close relationship between the percentile equivalents of the raw score conformance ratings when comparing each of the three groups. A notable difference occurs in the upper deciles. A raw score of 19 on the MSS Conformance scale would be placed in the ninth decile on the Graduate Scale (90th to 99th percentile), and in the eighth decile on the MSS Norms used in this study (80th to 89th percentile). The standard deviation indicates a homogenious grouping across all three scales.

Question Five

> How do the employer and the employee perceive dependability of the employee (graduate) as compared with others in the employee's work group?

The graduates self evaluation raw score means for dependability was 10.22 (See Table XI). The employers evaluated the employees at a raw score mean of 10.30 and the MSS raw score mean for dependability was 9.84. The analysis indicates a relative close correspondence between the percentile equivalents of the raw score dependability ratings as provided by each of the three groups being compared. The most notable difference occurs in the upper deciles. A raw score of 11 on the Graduate Scale would be placed in the seventh decile (70th to 79th percentile), on the employers scale in the sixth decile (60th to 69th percentile) and in the MSS Norms the eighth decile (80th to 89th percentile).

TABLE X

PERCENTILE EQUIVALENCE OF GRADUATE SELF-RATINGS, EMPLOYEE RATINGS AND MSS PROFESSIONAL, TECHNICAL AND MANAGERIAL NORM GROUP RAW SCORES ON THE MSS CONFORMANCE SCALE

	Conformance		
Percentile	Graduates (Self-Evaluation)	Employers	Minnesota Satisfactoriness Scales (Norms)
90-99	19-21	20-21	20-21
80-89	18	-	18-19
70-79	17	19	-
60-69	16	17	17
50-59	-	16	16
40-49	15	0	15
30-39	14	15	14
20-29	-	14	-
10-19	-	-	13
1-9	11-13	12-13	10-12
Mean	16.15	16.83	16.29
S.D.	2.17	2.50	2.68
Standard Error of Measurement	0.24	0.35	1.21

TABLE XI

PERCENTILE EQUIVALENCE OF GRADUATE SELF-RATINGS, EMPLOYEE RATINGS AND MSS PROFESSIONAL TECHNICAL AND MANAGERIAL NORM GROUP RAW SCORES ON THE MSS DEPENDABILITY SCALE

	Dependability		
Percentile	Graduates (Self-Evaluation)	Employers	Minnesota Satisfactoriness Scales (Norms)
90-99	12	12	12
80-89	0	0	11
70-79	11	0	0
60-69	0	11	0
50-59	10	10	10
40-49	0	0	9
30-39	9	9	0
20-29	8	8	8
10-19	0	0	7
1-9	7	7	5
Means	10.22	10.30	9.84
S.D.	1.55	1.61	1.75
Standard Error of Measurement	0.17	0.12	0.98

Question Six

What is the employer and the employee (graduate) perception of the employee's personal adjustment on the job as compared to others in the employee's work group?

It is seen in Table XII that the graduate's self evaluation raw score mean for personal adjustment is 16.99, the employers evaluation of the graduate 17.62. The MSS raw score mean for the norm group was 16.50. The analysis indicates a close relationship between the raw score personal adjustment ratings provided by the three groups being compared. The most notable difference occurs in the upper deciles with a raw score of 19 being ranked at the eighth decile (80 to 89 percentile), the employer raw score of 19 rated at the sixth decile (60 to 69 percentile), and MSS Normative group rating at the seventh decile (70th to 79th percentile). A higher mean rating and smaller standard deviation of the graduates and employers as compared to the MSS norm group would indicate that the small groups were more homogenious in regard to this scale.

Question Seven

How do the employer and employee perceive the general satisfactoriness of the employee as compared to others in the employee's work group?

General Satisfactoriness is a composite evaluation of performance, conformance, dependability and personal adjustment. In Table XIII the General Satisfactoriness evaluation of the employee (graduate self evaluation) raw score mean was 65.66, the employers raw score mean 65.80 and the MSS Norms a raw score mean of 66.30. The analysis indicates a relatively close correspondence between the percentile equivalents of the raw score general satisfactoriness ratings as provided by

TABLE XII

PERCENTILE EQUIVALENCE OF GRADUATE SELF-RATINGS EMPLOYEE RATINGS AND MSS PROFESSIONAL TECHNICAL AND MANAGERIAL NORM GROUP RAW SCORES ON THE MSS PERSONAL ADJUSTMENT SCALE

	Personal Adjustment		
Percentile	Graduates (Self-Evaluation)	Employers	Minnesota Satisfactoriness Scales (Norms)
90-99	20-21	21	21
80-89	19	-	20
70-79	18	20	18-19
60-69	0	18-19	17
50-59	17	17	16
40-49	16	-	15
30-39	15	15-16	-
20-29	14	14	14
10-19	-	-	12-13
1-9	12-13	13	9-11
Means	16.99	17.62	16.50
S.D.	2.42	2.73	3.07
Standard Error or Measurement	0.26	0.39	1.28

each of three groups being compared. A notable difference occurs in the upper deciles. A raw score of 73 was recorded on the graduate scale and placed in the ninth decile (90th to 98th percentile), the employer ranking being placed in the eighth decile (88th to 89th percentile). The MSS norm group was placed in the fourth decile (40th to 49th percentile). The MSS with a higher mean and a higher standard deviation indicates less homogeneity with the large study population of the MSS with more individuals at either end.

Occupational Programs

Table XIV has been included as supporting information in regard to the graduate's specialized study program areas. Although the study group population is insufficient for statistical analysis it is interesting to note that the means in most cases closely correspond.

TABLE XIII

PERCENTILE EQUIVALENCE OF GRADUATE SELF-RATINGS, EMPLOYEE RATINGS AND MSS PROFESSIONAL TECHNICAL AND MANAGERIAL NORM GROUP RAW SCORES ON THE MSS GENERAL SATISFACTORINESS SCALE

	General Satisfactoriness		
Percentile	Graduates (Self-Evaluation)	Employers	Minnesota Satisfactoriness Scales (Norms)
90-99	73-79	77	79-84
80-89	70-71	73-76	76-78
70-79	69	71-72	74-75
60-69	67-68	69-70	69-72
50-59	66	65-67	66-68
40-49	64-65	62-64	63-65
30-39	62-63	61	61-62
20-29	59-61	57-60	57-59
10-19	55-58	53-56	51-54
1-9	53	50-51	43-47
Mean	65.66	65.80	66.30
S.D.	6.58	8.09	10.33
Standard Error of Measurement	0.71	1.15	2.87

TABLE XIV

MSS SCALE SCORES MEANS FOR THE NINE PROGRAM OCCUPATIONAL GROUPS

	Performance		Conformance		Dependability		Personal Adjustment		General Satisfaction		Number	
Program	Grad.	Emp.	Grad.	Emp.	Grad.	Emp.	Grad.	Emp.	Grad.	Emp.	Grad.	Emp.
Aero	24.10	18.00	16.50	18.00	10.10	10.00	17.60	17.50	68.30	63.50	10	2
Construction	22.25	21.00	16.00	16.25	9.50	10.50	15.25	17.50	63.00	65.25	4	4
Electronics	21.59	21.21	16.45	16.57	10.41	11.00	16.90	18.50	65.36	67.29	22	14
Fire Safety	24.11	24.25	16.22	19.00	10.33	11.25	17.00	19.75	67.67	74.25	9	4
General	23.40	18.00	16.40	20.00	11.00	12.00	16.00	21.00	67.40	71.00	5	1
Mechanical Design	21.80	20.63	16.20	17.13	10.20	9.75	16.90	16.75	65.10	64.25	10	8
Mechanical Power	21.40	21.08	15.73	16.50	10.47	9.67	17.13	16.75	64.73	64.00	15	12
Petro	21.40	19.50	15.40	16.00	9.40	9.50	17.40	17.50	63.60	62.50	5	2
Nuclear	22.00	21.33	15.80	15.00	9.40	9.67	17.20	15.67	64.40	61.57	5	3
Grand Mean	22.29	21.06	16.15	16.82	10.22	10.30	16.99	17.62	65.66	65.80	85	50

CHAPTER V

FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

This study examined employer satisfaction with graduates of technical occupational training programs at the four-year baccalaureate level in regard to performance, conformance, dependability, personal adjustment and general satisfactoriness. To determine if graduates (employees) saw their job satisfactoriness in the same relationship as their employers, the same questions were asked both graduates and employers. The instrument used was the Minnesota Satisfactoriness Scales questions. The MSS has established norms to which measurements of employee performance, conformance, dependability, personal adjustment, and general satisfaction were compared. The MSS was made up of 28 questions to be answered by the employer and employee, taking about five minutes for completion.

Findings

The analysis of data indicated that the strong positive relationship between employee and employer ratings of the employee's general satisfactoriness, as measured by the MSS, was relatively uneffected by such potential intervening variables as age, socio-economic status and graduation date. This relationship ranged from $r = 0.599$ on the performance scale to $r = 0.105$ on the personal adjustment scale. The relationship between employee and employer overall general satisfactori-

ness ratings was r = 0.468. With the effects of age, SES, and graduation date statistically removed, either individually or in pairs, through the use of partial correlation, the overall relationship was strengthened rather than diminished (reaching a maximum value of r = 0.550).

The data analysis revealed that there was a very slight correlation between socio-economic status scores assigned to the occupational titles reported by employees and the general satisfactoriness rating of employees and employers (r = 0.156 and r = 0.173 respectively).

A partial correlation coefficient between the general satisfactoriness ratings of employees and employers, statistically controlling for the effects of socio-economic status. The resulting correlation was r = 0.518, which improved upon the zero order correlation coefficient between the two sets of ratings (r = 0.468), and was statistically significant at the .001 level of probability and beyond.

The correlation coefficient between the employer and employee performance rating was among the highest attained in the study (r = 0.599). While there was a tendency for employees to rate themselves slightly higher than the employers did on this scale (employee mean = 22.29, employer mean = 21.06) neither differed greatly from the MSS norms used in this study (mean - 21.60).

The correlation coefficient between employee and employer conformance ratings was recorded at a r = 0.320 level. This does not show as high a correlation coefficient as performance but is still statistically significant (S = 0.012). In the conformance rating the employees tended to rate themselves much lower than the employers rated them and only slightly lower than the ratings reported in the MSS norms (employee mean 16.15, employer mean 16.83, and MSS mean 16.29).

The correlation coefficient between the employee and employer dependability rating r = 0.359, resulted in a statistically significant correlation (S = 0.005). The raw score rating means were 10.22 for employees, 10.30 for employers and 9.84 for the MSS norm group used in this study. In this case the employee self-ratings were higher than the MSS norm group ratings, but slightly lower than the employer ratings.

The correlation coefficient between the employee and employer personal adjustment ratings on the employees was among the lowest obtained in the study (r = 0.105). This correlation was statistically significant (S = 0.235). The employers tended to rate themselves slightly higher (mean = 16.99), than the MSS norm group, (mean = 16.50) but somewhat lower than the employers (mean = 17.62). Personal adjustment was the only major variable that yielded a non significant correlation coefficient between employee and employer ratings.

In regard to general satisfactoriness ratings, the correlation coefficient between employers and employees (r = 0.486) was statistically significant (S = 0.001). The general satisfactoriness was determined by the combination of performance, conformance, dependability and personal adjustment. It should be noted that whereas the employee's rating is higher than the employer's, several of the above variables in the general satisfactoriness the employees self ratings were lower (mean = 65.66) than those of the employers (mean = 65.80), and the MSS norm group (mean = 66.30).

Conclusions

The generalizability of this study is affected by several major limitations. First, only 36 percent (85) of the graduates returned a usable questionnaire. A 60 percent return of usable employer questionnaires (50) was obtained in the study. Another factor which may have had some influence on the employers evaluations was that many of the graduates had been on the job only a few months. This was evident by marginal notations on the questionnaires concerning an accurate evaluation. While these factors do not destroy the value of the data gathered, they are offered as constraints on the generalizability of the findings.

Based on data presented, the following conclusions were reached:

1. The socio-economic status score assigned to the occupational title reported by the employee, had very little effect on the general satisfactoriness ratings of either the employees or the employers. However, the general satisfactoriness ratings of both the employees and employers when correlated were statistically significant.
2. The general satisfactoriness ratings between the employees and employers were relatively uneffected by such variables as age, socio-economic status and graduation date.
3. Given the relatively high correlation between employee self-ratings and employer ratings and the apparent agreement between the ratings of these two groups and the MSS norm group used in this study regarding general satisfactoriness, it can be concluded that data on job satisfactoriness could be gathered from either employees or employers.

It is interesting to note that, on the MSS satisfactoriness percentile rating scale, considering a raw score mean of 25 and below unsatisfactory, 26 through 59 as somewhat satisfactory, 50 through 74 as satisfactory and 75 and above as very satisfactory, both the employee self rating (mean = 65.66) and employer ratings (mean - 65.80) were in the satisfactory area. This corresponds to the MSS group rating mean of 66.30 which is followed closely in the study. From this we may thus conclude that this study group falls within the satisfactory range as to general satisfactoriness as rated by the MSS.

Recommendations

1. If the MSS is to be used as one component of an accountability system for programs such as those used in this study, the logical respondent group ought to be the employers for whom instrument was originally intended. However, if data is needed for program review and improvement, program graduates may very well be considered as a group for data collection using the MSS.
2. Even though a strong relationship between employee self-ratings and employer ratings was present in this study, the nature of this relationship needs further investigation.
   a) Are there intervening variables not treated in this study that would enhance or diminish the relationship between employee and employer ratings on the MSS?
   b) Where would program graduates be ranked if all employees reported to the same supervisor (employer) and were ranked according to the MSS?

c) Is the MSS more appropriate for some program areas than others?

d) Did the knowledge that the employee knew that his supervisor would also be rating him have an effect on the employee's self-ratings?

3. Possibly the most intriquing question emanating from this study is whether or not pre-service training programs can effectively respond to, and remediate instrucational problems (cognitive, affective and psychomotor) identified through the administration of the MSS.

Recommendations for Further Study

It would be interesting to follow up the same or a similar group after three to five years of work experience, treating two groups of employees on self ratings as to general satisfactoriness, one employee group evaluating themselves with the knowledge that they would be also evaluated by their supervisor, the other group without the knowledge of a supervisor evaluation. This would assist in validating the conclusions that either the graduates or employers could be used to gather employee satisfactoriness information.

It is hoped that the instrument selected in this study can be used to advantage in further program appraisal of graduates, and that this type of study will assist student counseling and in determining the accountability of future technology programs.

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APPENDIX A

OCCUPATIONS ILLUSTRATING VARIOUS SCORES ON THE INDEX OF OCCUPATIONAL STATUS

Score	Occupation
90 to 96	Architects (7); dentists (18); chemical engineers (9); lawyers and judges (45); physicians and surgeons (47)
85 to 89	Aeronautical engineers (11); industrial engineers (21); salaried managers, banking and finance (30); self-employed proprietors, banking and finance (5)
80 to 84	College presidents, professors and instructors (31); editors and reporters (14); electrical engineers (40); pharmacists (19); officials, federal public administration and postal service (13); salaried managers, business services (11)
75 to 79	Accountants and auditors (87); chemists (17); veterinarians (3); salaried managers, manufacturing (133); self-employed proprietors, insurance and real estate (9)
70 to 74	Designers (12); teachers (105); store buyers and department heads (40); credit men (8); salaried managers, wholesale trade (41); self-employed proprietors, motor vehicles and accessories retailing (12); stock and bond salesmen (6)
65 to 69	Artists and art teachers (15); draftsmen (45); salaried managers, motor vehicles and accessories retailing (18); self-employed proprietors, apparel and accessories retail stores (8); agents, n.e.c. (29); advertising agents and salesmen (7); salesmen, manufacturing (93); foremen, transportation equipment manufacturing (18)
60 to 64	Librarians (3); sports instructors and officials (12); postmasters (5); salaried managers, construction (31); self-employed proprietors, manufacturing (35); stenographers, typists, and secretaries (18); ticket, station and express agents (12); real estate agents and brokers (33); salesmen, wholesale trade (106); foremen, machinery manufacturing (28); photoengravers and lithographers (5)
55 to 59	Funeral directors and embalmers (8); railroad conductors (10); self-employed proprietors, wholesale trade (28); electrotypers and stereotypers (2); foremen communications, utilities, and sanitary services (12);
50 to 54	Clergymen (43); musicians and music teachers (19); officials and administrators, local public administration (15); salaried managers, food and dairy products stores (21); self-employed proprietors, construction (50); bookkeepers

(33); mail carriers (43); foremen, metal industries (28); toolmakers, and die-makers and setters (41)

45 to 49 Surveyors (10); salaried managers, automobile repair services and garages (4); office machine operators (18); linemen and servicemen, telephone, telegraph and power (60); locomotive firemen (9); airplane mechanics and repairmen (26); stationary engineers (60)

40 to 44 Self-employed proprietors, transportation (8); self-employed proprietors, personal services (19); cashiers (23); clerical and kindred workers, n.e.c. (269); electricians (77); construction foremen (22); motion picture projectionists (4); photographic process workers (5); railroad switchmen (13); policemen and detectives, government (51)

35 to 39 Salaried and self-employed managers and proprietors, eating and drinking places (43); salesmen and sales clerks, retail trade (274); bookbinders (3); radio and television repairmen (23); firemen, fire protection (30); policemen and detectives, private (3)

30 to 34 Building managers and superintendents (7); self-employed proprietors, gasoline service stations (32); boilermakers (6); machinists (111); millwrights (15); plumbers and pipe fitters (72); structural metal workers (14); tinsmiths, coppersmiths, and sheet metal workers, (31); deliverymen and routemen (93); operatives, printing, publishing and allied industries (13); sheriffs and bailiffs (5)

25 to 29 Messengers and office boys (11); newsboys (41); brick masons, stonemasons, and tile setters (45) mechanics and repairmen, n.e.c. (266); plasterers (12); operatives, drugs and medicine manufacturing (2); ushers, recreation and amusement (2); laborers, petroleum refining (3)

20 to 24 Telegraph messengers (1); shipping and receiving clerks (59); bakers (21); cabinetmakers (15); excavating, grading, and road machine operators (49); railroad and car shop mechanics and repairmen (9); tailors (7); upholsterers (12); bus drivers (36); filers, grinders, and polishers, metal (33); welders and flame-cutters (81)

15 to 19 Blacksmith (5); carpenters (202); automobile mechanics and repairmen (153); painters (118) attendants, auto service and parking (81); laundry and dry cleaning operatives (25); truck and tractor drivers (362); stationary firemen (20); operatives, metal industries (103); operatives, wholesale and retail trade (35); barbers (38); bartenders (36); cooks, except private household (47)

10 to 14	Farmers (owners and tenants) (521); shoemakers and repairers, except factory (8); dyers (4); taxicab drivers and chauffeurs (36); attendants, hospital and other institution (24); elevator operators (11); fishermen and oystermen (9); gardeners, except farm, and groundskeepers (46); longshoremen and stevedores (13); laborers, machinery manufacturing (10)
5 to 9	Hucksters and peddlers (5); sawyers (20); weavers, textile (8); operatives, footwear, except rubber, manufacturing (16); janitors and sextons (118); farm laborers, wage workers (241); laborers, blast furnaces, steel works, and rolling mills (26); construction laborers (163)
0 to 4	Coal mine operatives and laborers (31); operatives, yarn, thread and fabric mills (30); porters (33); laborers, saw mills, planning mills, and millwork (21)

(Frequency per 10,000 Males in 1960 Experience Civilian Labor Force in Parentheses)

SOURCE: Duncan, Otis D., The American Occupational Structure, pp. 122-123.

APPENDIX B

Oklahoma State University

SCHOOL OF OCCUPATIONAL AND ADULT EDUCATION

STILLWATER, OKLAHOMA, 74074
CLASSROOM BUILDING 406
(405) 372-6211, EXT. 6287

February 10, 1976

Dear Graduate:

Our University is always attempting to provide the most effective up-to-date training possible to meet the needs of our students.

We are studying the 1974 and 1975 graduating classes of the School of Technology to determine job satisfaction of graduates upon entering employment after graduation. As a recent graduate and new employee your opinion as to your job satisfaction, through a self evaluation questionnaire, would give an indication on how well you have adapted to your job and would indicate a relationship as to the adequacy of the training received at Oklahoma State University. This information would be of great value in respect to evaluating our instruction and counseling for future students who will attend our institution.

Would you please answer the enclosed Satisfaction Questionnaire and return it to me in the enclosed stamped, self-addressed envelope.

Thank you for your contribution. Your response will be kept confidential and known only to the researcher. This information will be used for statistical purposes as it relates to employee job satisfaction.

Sincerely,

Robert E. Julian
Researcher

REJ:tjc
Enclosure

This study is authorized by the
School of Technology, Oklahoma
State University

James Bose, Director
School of Technology

Job Satisfaction Questionnaire
Selected 1974-75 Graduates of
Oklahoma State University
School of Technology

Supervisor's Name: _____

Supervisor's Address: _____

Graduate's Name: _____

Present Job Title: _____

Program of Study (OSU): _____

Graduation Date (OSU): Mo. _____ Yr. _____ Age: _____

Military Veteran: Yes ☐ No ☐ Male ☐ Female ☐

Please check the best answer for each question.
Be sure to answer all questions.

A.	Were you aided in employment through the OSU placement service?	Yes ☐	No ☐
B.	Do you work in area for which your were trained?	Yes ☐	No ☐
C.	Is this your first job since graduation?	Yes ☐	No ☐

D. Compared to others in your work group, how well do you:	not as well	about the same	better
1. Follow company policies and practices?.	☐	☐	☐
2. Accept the direction of your supervisor?. . . .	☐	☐	☐
3. Follow standard work rules and procedures?. . .	☐	☐	☐
4. Accept the responsibility of your job?.	☐	☐	☐
5. Adapt to changes in procedures or methods?. . .	☐	☐	☐
6. Respect the authority of your supervisor? . . .	☐	☐	☐
7. Work as a member of a team?	☐	☐	☐
8. Get along with your supervisors?.	☐	☐	☐
9. Perform repetitive tasks?	☐	☐	☐
10. Get along with your co-workers?	☐	☐	☐
11. Perform tasks requiring variety and change in methods?	☐	☐	☐

E. Compared to others in your work group:	not as well	about the same	better
12. How good is the quality of your work?	☐	☐	☐
13. How good is the quantity of your work?.	☐	☐	☐

Please continue on the other side

Please check the best answer for each question.
Be sure to answer all questions.

F. If you were making the decisions, would you deserve:	yes	not sure	no
14. To get a pay raise?	☐	☐	☐
15. Being transfered to a higher level job?	☐	☐	☐
16. Being promoted to a position of more responsibility?	☐	☐	☐

G. Compared to others in your work group, how often do you:	less	about the same	more
17. Come late for work?	☐	☐	☐
18. Become overexcited?	☐	☐	☐
19. Become upset and unhappy?	☐	☐	☐
20. Need disciplinary action?	☐	☐	☐
21. Stay absent from work?	☐	☐	☐
22. Seem bothered by something?	☐	☐	☐
23. Complain about physical ailments?	☐	☐	☐
24. Say "odd" things?	☐	☐	☐
25. Seem to tire easily?	☐	☐	☐
26. Act as if you are not listening when spoken to?	☐	☐	☐
27. Wander from subject to subject when talking?	☐	☐	☐

28. Now will you please consider yourself with respect to your overall competence, the effectiveness with which you perform your job, your proficiency, your general overall value. Take into account all the elements of successful job performance, such as knowledge of the job and functions performed, quantity and quality of output, relations with other people (subordinates, equals, superiors), ability to get the work done, intelligence, interest, response to training, and the like. In other words, how closely do you come to the ideal, the kind of worker you want to be? With all these factors in mind, where would you rank yourself as compared with the other people who are now doing the same work?

In the top 1/4 . . . . . ☐

In the top half, but not among the top 1/4 . . . . . ☐

In the bottom half, but not among the lowest 1/4 . . . . . ☐

In the lowest 1/4. . . . . ☐

I give my permission for my supervisor to evaluate me on a questionnaire that is based on the same questions, 1-28, to which I have responded. I understand that all information will be held confidential.

Name (Please Print) _____ Signature _____ Date _____

APPENDIX C

Oklahoma State University

SCHOOL OF OCCUPATIONAL AND ADULT EDUCATION

STILLWATER, OKLAHOMA, 74074
CLASSROOM BUILDING 406
(405) 372-6211, EXT. 6287

February 25, 1976

Our University is always attempting to find ways to better provide for the needs of our students and their potential employers. We need to know how you feel about your employees who have graduated from Oklahoma State University.

We are studying the 1974 and 1975 graduating classes of the School of Technology to determine employer satisfaction of the employee and success with their employment after graduation. This information will be of great value in respect to evaluating our instruction and counseling future students who will attend our institution.

Would you please answer the enclosed questionnaire and return it to me in the stamped, self-addressed envelope which is provided. This can be done in less than five minutes. Your response will be kept confidential by the researcher.

Thank you for your contribution.

Sincerely,

Robert E. Julian
Researcher

This study is authorized by the School of Technology, Oklahoma State University

Jim Bose

James Bose, Director
School of Technology

REJ:tjc
Enclosures

Employer Satisfaction Questionnaire
for 1974-75 Graduates of
Oklahoma State University
School of Technology

Employee Name: _____

Employee Job Title: _____

Rated by: _____

Job Title: _____

Date: _____

Please check the best answer for each question.
Be sure to answer all questions.

1. Did you hire the employee through contact with the OSU placement service? ☐ Yes ☐ No

2. Is the job title listed above the job title the employee held when first hired? ☐ Yes ☐ No

3. If the answer to question 2 is "No" what was the employees job title? _____

Compared to others in his work group, how well does he:	not as well	above the same	better
1. Follow company policies and practices?	☐	☐	☐
2. Accept the direction of his supervisor?	☐	☐	☐
3. Follow standard work rules and procedures?	☐	☐	☐
4. Accept the responsibility of his job?	☐	☐	☐
5. Adapt to changes in procedures or methods?	☐	☐	☐
6. Respect the authority of his supervisor?	☐	☐	☐
7. Work as a member of a team?	☐	☐	☐
8. Get along with his supervisors?	☐	☐	☐
9. Perform repetitive tasks?	☐	☐	☐
10. Get along with his co-workers?	☐	☐	☐
11. Perform tasks requiring variety and change in methods?	☐	☐	☐

-Please continue on the other side-

Please check the best answer for each question.
Be sure to answer all questions.

Compared to others in his work group:	not as good	about the same	better
12. How good is the quality of his work?	☐	☐	☐
13. How good is the quantity of his work?	☐	☐	☐
If you could make the decision, would you:	**yes**	**not sure**	**no**
14. Give him a pay raise?	☐	☐	☐
15. Transfer him to a job at a higher level?	☐	☐	☐
16. Promote him to a position of more responsibility?	☐	☐	☐
Compared to others in his work group, how often does he:	**less**	**about the same**	**more**
17. Come late for work?	☐	☐	☐
18. Become overexcited?	☐	☐	☐
19. Become upset and unhappy?	☐	☐	☐
20. Need disciplinary action?	☐	☐	☐
21. Stay absent from work?	☐	☐	☐
22. Seem bothered by something?	☐	☐	☐
23. Complain about physical ailments?	☐	☐	☐
24. Say "odd" things?	☐	☐	☐
25. Seem to tire easily?	☐	☐	☐
26. Act as if he is not listening when spoken to?	☐	☐	☐
27. Wander from subject to subject when talking?	☐	☐	☐

28. Now will you please consider this worker with respect to his overall competence, the effectiveness with which he performs his job, his proficiency, his general overall value. Take into account all the elements of successful job performance, such as knowledge of the job and functions performed, quantity and quality of output, relations with other people (subordinates, equals, superiors), ability to get the work done, intelligence, interest, response to training, and the like. In other words, how closely does he approximate the ideal, the kind of worker you want more of? With all these factors in mind, where would you rank this worker as compared with the other people whom you now have doing the same work? (or, if he is the only one, how does he compare with those who have done the same work in the past?)

In the top 1/4 . . . . . ☐

In the top half but not among the top 1/4. . . . . ☐

In the bottom half but not among the lowest 1/4. . . . . ☐

In the lowest 1/4. . . . . ☐

APPENDIX D

Oklahoma State University

SCHOOL OF OCCUPATIONAL AND ADULT EDUCATION

STILLWATER, OKLAHOMA, 74074
CLASSROOM BUILDING 406
(405) 372-6211, EXT. 6287

April 14, 1976

Dear Graduate:

We have not as yet received your Job Satisfaction Questionnaire. Possibly you have not completed or returned it because of the supervisor's evaluation permission statement. If this is the case, please complete the enclosed Job Satisfaction Questionnaire, omitting the supervisor's name and address, and mark the statement that you do not give permission for a supervisor's evaluation.

Please return it in the stamped, addressed envelope you received with the original questionnaire. Your information is very important to our research and is greatly appreciated.

All returns are confidential and no individual will be identified in any of the data used in the completed research.

Sincerely,

Robert E. Julian
Researcher

REJ:crj

Enclosure

Job Satisfaction Questionnaire
Selected 1974-75 Graduates of
Oklahoma State University
School of Technology

Supervisor's Name: _____

Supervisor's Address: _____

Graduate's Name: _____

Present Job Title: _____

Program of Study (OSU): _____

Graduation Date (OSU): Mo. _____ Yr. _____ Age: _____

Military Veteran: Yes ☐ No ☐ Male ☐ Female ☐

Please check the best answer for each question.
Be sure to answer all questions.

A.	Were you aided in employment through the OSU placement service?	Yes ☐	No ☐
B.	Do you work in area for which your were trained?	Yes ☐	No ☐
C.	Is this your first job since graduation?	Yes ☐	No ☐

D. Compared to others in your work group, how well do you:	not as well	about the same	better
1. Follow company policies and practices?.	☐	☐	☐
2. Accept the direction of your supervisor?. . . .	☐	☐	☐
3. Follow standard work rules and procedures?. . .	☐	☐	☐
4. Accept the responsibility of your job?.	☐	☐	☐
5. Adapt to changes in procedures or methods?. . .	☐	☐	☐
6. Respect the authority of your supervisor? . . .	☐	☐	☐
7. Work as a member of a team?	☐	☐	☐
8. Get along with your supervisors?.	☐	☐	☐
9. Perform repetitive tasks?	☐	☐	☐
10. Get along with your co-workers?	☐	☐	☐
11. Perform tasks requiring variety and change in methods?	☐	☐	☐

E. Compared to others in your work group:	not as well	about the same	better
12. How good is the quality of your work?	☐	☐	☐
13. How good is the quantity of your work?.	☐	☐	☐

Please continue on the other side

Please check the best answer for each question.
Be sure to answer all questions.

F. If you were making the decisions, would you deserve:	yes	not sure	no
14. To get a pay raise?	☐	☐	☐
15. Being transfered to a higher level job?	☐	☐	☐
16. Being promoted to a position of more responsibility?	☐	☐	☐

G. Compared to others in your work group, how often do you:	less	about the same	more
17. Come late for work?	☐	☐	☐
18. Become overexcited?	☐	☐	☐
19. Become upset and unhappy?	☐	☐	☐
20. Need disciplinary action?	☐	☐	☐
21. Stay absent from work?	☐	☐	☐
22. Seem bothered by something?	☐	☐	☐
23. Complain about physical ailments?	☐	☐	☐
24. Say "odd" things?	☐	☐	☐
25. Seem to tire easily?	☐	☐	☐
26. Act as if you are not listening when spoken to?	☐	☐	☐
27. Wander from subject to subject when talking?	☐	☐	☐

28. Now will you please consider yourself with respect to your overall competence, the effectiveness with which you perform your job, your proficiency, your general overall value. Take into account all the elements of successful job performance, such as knowledge of the job and functions performed, quantity and quality of output, relations with other people (subordinates, equals, superiors), ability to get the work done, intelligence, interest, response to training, and the like. In other words, how closely do you come to the ideal, the kind of worker you want to be? With all these factors in mind, where would you rank yourself as compared with the other people who are now doing the same work?

In the top 1/4 . . . . . ☐

In the top half, but not among the top 1/4 . . . . . ☐

In the bottom half, but not among the lowest 1/4 . . . . . ☐

In the lowest 1/4. . . . . ☐

I give my permission for my supervisor to evaluate me on a questionnaire that is based on the same questions, 1-28, to which I have responded. I understand that all information will be held confidential.

Name (Please Print) _____ Signature _____ Date _____

☐ I do not give my permission for a supervisor satisfaction evaluation.

VITA 2

Robert Eugene Julian

Candidate for the Degree of

Doctor of Education

Thesis: A STUDY OF EMPLOYER SATISFACTION WITH GRADUATES OF OKLAHOMA STATE UNIVERSITY SCHOOL OF TECHNOLOGY

Major Field: Vocational-Technical and Career Education

Biographical:

Personal Data: Born in Trousdale, Kansas, October 17, 1930, the son of Mrs. and Mrs. W. S. Julian.

Education: Graduated from Trousdale High School, Trousdale, Kansas, in May, 1948; received the Bachelor of Science degree in Agriculture from Kansas State University in 1955; received the Master of Agricultural Education from the University of Arizona in 1967; enrolled in doctoral program at Oklahoma State University, 1975-76; completed requirements for Doctor of Education degree at Oklahoma State University in July, 1976.

Professional Experiences: United States Navy, 1951-1953; teacher of Vocational Agriculture, Downs, Kansas, 1955-1958; teacher of Vocational Agriculture, Yuma, Arizona, 1958-1963; Vocational Agriculture teacher and coordinator and participating teacher trainer, University of Arizona, Tucson, Arizona, 1963-1967; Agriculture Education Adviser, University of Arizona (Staff), Brazil Contract, 1967-71; Assistant Professor, Adult and Occupational Education and Training Coordinator for International Agricultural Programs, Kansas State University, 1971-1975.

Other Experiences: UNESCO Consultant, Vocational Education for South America, Bogota, Colombia, April-May, 1970; Kansas State University Consultant, Technical Assistance Program, Zaria, Nigeria, May-June, 1972.