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Title: DESIRABLE NON-TECHNICAL EMPLOYMENT QUALITIES FOR SECONDARY STUDENTS PARTICIPATING IN COOPERATIVE WORK EXPERIENCE: PERCEPTIONS OF EMPLOYERS, COORDINATORS AND COUNSELORS IN UTAH

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The Purpose of the Study

One purpose of this study was to determine the non-technical employment qualities needed by cooperative work experience students. A second purpose of this study was to determine whether or not employers, coordinators, and counselors agree on the non-technical employment qualities needed by cooperative work experience students.

Procedures

A literature analysis was completed to identify the most important non-technical employment qualities for secondary students. Twenty-seven qualities were identified. Four were added in an effort to get varying responses from respondents. A mail survey instrument was developed, validated, and used which contained the

31 non-technical qualities. The instrument had a four-point scale of importance from "not important" to "highly important." The study's population was made up of 180 participants in secondary cooperative work experience programs. The three samples included 60 teacher-coordinators, 60 employers, and 60 counselors in Utah. Of the samples, 55 coordinators, 60 employers, and 49 counselors responded. Analysis of variance was used at the .05 level to test for significance of employer responses between the six occupational areas included in the study. Occupational areas were agriculture, business/office, distributive, health, home economics, and trades/industries. The same test for significance at the .05 level was used to analyze responses of teacher-coordinators, employers, and counselors. Multiple comparisons were completed using the least significant difference (LSD) test.

Findings

The ranking of employer responses was very different than the order of importance determined through the literature analysis.

The analysis of variance tests indicated that the employers from the six different occupational areas generally agreed on the importance placed on the non-technical employment qualities. Teacher-coordinators, employers, and counselors tended to agree on the importance of the non-technical employment qualities.

Recommendations

In view of the findings, it is recommended that educators and employers work closely with each other to develop curriculums and curriculum materials. Educators should evaluate current curriculum materials to make sure the emphasis is in balance with the importance of the quality being developed. It should be determined if the quality can best be developed on the job or in the classroom. Teaching methods to develop non-technical qualities must be evaluated. Teacher educators must closely evaluate the preparation of teachers to assure adequate competency to teach the non-technical qualities and be certain that courses in teaching methods include methods of teaching non-technical employment qualities.

Desirable Non-Technical Employment Qualities for Secondary Students Participating in Cooperative Work Experience: Perceptions of Employers, Coordinators and Counselors in Utah

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TABLE OF CONTENTS

Chapter		Page
I	INTRODUCTION	1
	Background	1
	Statement of the Problem	3
	Purpose of the Study	6
	Significance of the Problem	6
	Terminology Pertinent to this Study	8
II	REVIEW OF THE LITERATURE	11
	Generally Stated Qualities	11
	Cooperative Work Experience Student Selection Criteria	18
	Research Questions	31
III	METHODOLOGY	34
	Population and Sample	34
	Instrumentation	36
	Procedures	38
	Data Analysis	39
IV	FINDINGS	42
	Ranking of Employers' Responses	42
	Analysis of Variance (Employers)	46
	Analysis of Variance (All Groups)	52
V	SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS	56
	Summary of the Study	56
	Findings	58
	Conclusions of the Study	59
	Recommendations	60
BIBLIOGRAPHY		63
APPENDICES		68

Chapter		Page
Appendix A.	Letters and Form Sent to Teacher-Coordinators to Identify Employers and Counselors	68
Appendix B.	Survey Instrument	72
Appendix C.	Cover Letter and Validation Form	76
Appendix D.	First Cover Letters Sent to Respondents	80
Appendix E.	Second Cover Letters Sent to Respondents	84
Appendix F.	Results of Analysis of Variance Employer Responses	88
Appendix G.	Mean Scores of Employers Responses for Each Non-Technical Employment Quality for Health, Business/Office, Agriculture, Trades/Industries, Home Economics, and Distribution	93
Appendix H.	Least Significant Difference Between Employer Occupational Groups	99
Appendix I.	Results of Analysis of Variance--Teacher-Coordinator, Employer, and Counselor Responses	102
Appendix J.	Mean Scores of Responses for Non-Technical Employment Qualities from Teacher-Coordinators, Employers, and Counselors	107
Appendix K.	Least Significant Difference Between Teacher-Coordinators, Employers, and Counselors	111

LIST OF TABLES

Table		Page
1	Number and Percentage of Employers, Coordinators, and Counselors Returning the Survey Instrument (Sixty Participants were Originally Selected from Each Group)	35
2	Ranking of Non-Technical Employment Qualities by Importance as Determined by Employers Mean Scores	43
3	Order of Importance of Non-Technical Employment Qualities as Perceived by Employers of Cooperative Work Experience Students and the Priority Assigned Judgmentally to Those Qualities Based on the Related Literature	47

DESIRABLE NON-TECHNICAL EMPLOYMENT QUALITIES FOR SECONDARY STUDENTS PARTICIPATING IN COOPERATIVE WORK EXPERIENCE: PERCEPTIONS OF EMPLOYERS, COORDINATORS AND COUNSELORS IN UTAH

I. INTRODUCTION

Background

Individuals searching for employment are faced with the importance of meeting the specified qualifications for the position and the disappointment in not meeting them. Compound the situation with immaturity and inexperience and you can understand the dilemma faced by many secondary students desirous of gainful employment. This employment problem is confronted through an instructional method known as cooperative work experience.

Cooperative work experience is defined in the Vocational Education Amendments of 1968 as:

> A program of vocational education for persons who through a cooperative arrangement between the school and employers, receive instruction, including required academic courses and related vocational instruction by alternation of study in school with a job in an occupational field, but these two experiences must be planned and supervised by the school and employers so that each contributes to the students education and his employability. Work periods and school attendance may be on alternate half-days, full-days, weeks, or other periods of time in fulfilling the cooperative vocational education program (1968: Part G).

Cooperative work experience can assist the secondary student in becoming more employable and can provide more job opportunities, but it does not provide all of the answers. The question is, do secondary cooperative work experience programs provide the right kinds of training or is the emphasis too heavy on one area to the detriment of others?

Many studies have been conducted to identify the technical competencies that are expected of students for entry level employment. Jacobson and Swanson (1966) surveyed the technical needs of industry, Ertel (1967) identified the task and knowledge clusters in general merchandise retailing, and Bakamis (1966) identified the task and knowledge clusters of building trades work. Technical competencies identified in those studies are tangibles, such as cash register operation, soldering electrical connections, or using a mitre box. Technical competencies are the most easily demonstrated of the desired employment attributes and the most easily learned.

On the other hand, non-technical qualities have been relegated to the shadows of the technical competencies. Very little effort has been made to assure that students possess the non-technical qualities, or work ethos, that are necessary to maintain employment and rise on the career ladder of an organization, even in cooperative work experience programs (Wallace, 1970:91). Shartle (1959:173) suggested that while education is perhaps the most frequently mentioned employment

requirement, ability to work under supervision is one of the broadest of all requirements in holding a job. There are also minimum acceptable levels of work habits and the requirement of social conformity. Although social factors often go unmentioned in statements of occupational requirements, employers give a great deal of attention to them.

Klaurens (1972:130) stated that ". . . studies of reasons why people lose their jobs usually show that attitudes, motivation, personality factors, and other behaviors that involve value choices are the principal reasons for terminating employment." Borrow (1974:166) concurred that work adjustment problems, including job dismissals, transfers and quitting, occur with above average frequency among new workers, typically those in their first several weeks or months on the job.

Statement of the Problem

Addressing the subject of career education, Shapiro (1975:79) noted that successful planning for career education must include a significant integration of vocational education into the school program, and it must provide actual occupational experiences and an awareness of the necessary attitudes and disciplines that jobs require. A study completed by Korkowski and Kruger (1972:55) in Central Minnesota pointed out that employers felt that attitude was either a "most important" or a "very important" quality to have when being considered

for employment. The authors felt that since attitude was considered so important it could be reasonably assumed that all school programs would include attitudinal training for employment purpose. They did not find that to be a common practice.

It is uncertain why behaviors not associated with technical competence are not given more emphasis in occupational education programs. One reason is the lack of knowledge of the non-technical qualities to emphasize, and the importance placed on the non-technical qualities by employers. There is a need to study the area on non-technical employment qualities. Wallace (1970:92) pointed out the need this way:

> Research and development in cooperative vocational education has been almost entirely concerned with "the characteristic skill, duties, and practical understandings associated with the occupation." Very little research effort has been directed to "the work ethos, a set of attitudes, rules of etiquette, and interpersonal skills involving relations with fellow workers, supervisors, and clients." What is needed is a redirection of cooperative work experience so that each student may have an opportunity to cultivate the "work ethos" and to ". . . learn to see himself psychologically mirrored in the work situation, . . . to build his self-identify as worker-to-be and to know better what manner of person he is, what strengths, limitations, aspirations, and personal values characterize him." If this concept of the emerging role of cooperative vocational education is accepted, a large area of research and development is being neglected.

Some concern has been shown for determining employer preferences in the qualities secondary students possess in addition to

technical competencies. Northwest Regional Educational Laboratory found that the qualities mentioned most often by employers in one county in Oregon as desirable in an entering employee were the willingness to work and assume responsibility, loyalty, personableness, and neat appearance (Douglas I. E. D., 1975:48). A report, Work in America (1973:146), suggested that general education for work should probably be aimed at enhancing the young person's technical skills as well as the capacity for working closely with other people. Findings of a study conducted by Fisher and others (1968:85) indicated that skill qualifications seem to be less important than personal characteristics for most of the jobs that were included in the study. In many of the jobs, skills apparently can be learned quite quickly on the job. In others, no particular skills are needed, but merely the ability to follow instructions.

Research specifically concerning the desired non-technical employment qualities for cooperative work experience students entering employment is sparce and virtually nonexistent. A few isolated investigations have been completed that did include non-technical qualities with technical competencies, such as the study by Harris (1971) in distributive education, but none have dealt with non-technical employment qualities exclusively.

Loftis and Ray (1974:202) noted that the family, the community itself, is dependent on educators for insuring that youth develop the

tools of communication and the essential skills for functioning in a complex society. These are needed above and beyond the specific vocational competencies necessary for an entry level job. These make the difference between getting and holding a job, between holding and advancing in a job. Research concerning non-technical employment qualities in addition to technical competencies is vital to determine the needs that must be met so that students can be made more employable and better able to hold their positions once employed.

Purpose of the Study

One purpose of this study was to determine the non-technical employment qualities needed by cooperative work experience students. A second purpose of this study was to determine whether or not employers, coordinators and counselors agree on the non-technical employment qualities needed by cooperative work experience students.

Significance of the Problem

The major reason for undertaking this study was to provide information on non-technical employment qualities which could be used in program planning. This includes development, adaptation, or adoption of curriculum materials for classroom use to fill the void that Korkowski and Kruger (1972:55) found to exist in the classroom to equip students with the non-technical employment qualities preferred

for employment.

Program planning is an essential part of the core of all educational enterprises, but more specifically so for vocational education where programs are based on current and future employment needs. Business and industry can play a vital role in identifying competencies and qualities that must be developed in the several components of vocational education, including cooperative work experience. Program planning is important to professional educators, but it is also of concern to employers of vocational students who are often willing and even eager to assist with curriculum development. To get this assistance, the leadership role belongs to vocational educators (Cross, 1975:334). This study provides information from business and industry personnel that will assist in curriculum development.

If the importance of the qualities is unknown to coordinators and counselors, this study can make a significant contribution to the awareness of what seems to be a vital aspect of the secondary cooperative work experience program. The need, again, for program planning, development, adaptation, or adoption of curriculum materials would surface. Wallace (1970:92) said:

> If instructional objectives related to higher level intellectual skills, social skills, and attitudes are assumed to be important, a great gap in educational measurement should receive attention. Research involving such psychological constructs as "personality," "work values," "personal adjustment," and many others should receive a greater share of the available resources than the vocational community has been willing to provide.

If there is a lack of knowledge of the importance of non-technical employment qualities, and what qualities should be emphasized, instructional personnel need to be prepared in methods of teaching non-technical qualities. Klaurens (1972:130) felt that the vocational educator may be very competent in teaching the skills of an occupation, or the "how to's" of the vocational field, but may need help in developing the kinds of attitudes and values employers expect when young workers begin their first jobs. This study will make a significant contribution to the determination of program needs for professional development of vocational educators.

Terminology Pertinent to this Study

To aid the reader of this thesis, terminology used in the study is presented here.

Cooperative Vocational Education - A term which is used interchangeably with cooperative work experience. See Cooperative Work Experience for a complete definition.

> Cooperative Work Experience - a program of vocational education for persons who, through a cooperative arrangement between the school and employers, receive instruction, including required academic courses and related vocational instruction by alternation of study in school with a job in an occupational field, but these two experiences must be planned and supervised by the school and employers so that each contributes to the students education and his employability. Work periods and school attendance may be on alternate half-days, full-days, weeks, or other periods of time in

fulfilling the cooperative vocational education program (1968:Part G).

Coordinator - The individual responsible for the conduct of a cooperative work experience program. Responsibilities include student job placement, coordination of work activities with classroom instruction, advising student organizations, and classroom instruction in an occupational area.

Counselor - A trained individual who provides a person-to-person relationship with a client, although it may sometimes involve more than two people, designed to help the client understand and clarify her/his view of life space so that she/he may make meaningful and informed choices consonant with her/his essential nature in those areas where choices are available to her/him (Stefflre, 1965:15).

Employers - In this study, employers are those identified by coordinators to be active participants in a cooperative work experience program and had secondary students employed at the time of this study.

Non-technical Employment Qualities - For use in this study, non-technical employment qualities are behaviors not normally associated with technical competence.

Occupational Programs - A wide variety of occupational education programs exist including awareness of occupations to specialized training. Occupational programs, here, include all of the occupational

areas involved in training secondary students through cooperative work experience. Traditionally the programs would include: Agriculture, Business and Office, Distributive, Health, Home Economics, and Trade/Industrial, but could include more (Mason and Haines, 1972: 514).

Technical Competencies - The skills necessary to complete a productive operation, such as operate a cash register, grind valves on an automobile engine, or measure medication for a patient.

II. REVIEW OF THE LITERATURE

The literature related to this study was found to be contained in several types of publications. A commonality of the literature regardless of its source was the lack of research to substantiate the non-technical employment qualities stated by the authors. There were, however, isolated instances of research upon which stated qualities were based.

Generally Stated Qualities

Consideration for non-technical employment qualities was given by a variety of authors, primarily in association with specific technical competencies for various occupations. Shartle (1959:251-254) dealt extensively with general requirements in his early writings. He discussed an array of general requirements, categorically revealing such qualities as: minimum social conformity, physical competence, accepted work habits, adjustment to supervision, and educational level. First, Shartle felt that a minimum level of conformity to laws and customs in one's society is essential for most any kind of legitimate occupation. However, Fisher (1968:85) indicated that a police record does not seem to be an automatic bar to employment but is studied in terms of length and seriousness.

Shartle felt that a minimum of physical competence is required

for all occupations. A person in continually bad health may not meet the minimum standards of any employer even if that employer desires to forego usual standards. Mason and Haines (1972:370) concurred that when students are considered for cooperative work experience programs, physical condition is an important criterion. An applicant must be able to meet the physical demands of the training station and career in his chosen field.

Third, Shartle (1959:252) felt that accepted work habits are necessary. Examples of accepted work habits are getting to work at a reasonable hour, putting in a required day's work, avoiding absenteeism, and taking care in using machines and equipment so as to avoid accidents. It is better from the employer's standpoint that these habits be formed and demonstrated before the person is hired. Empolyers use reports from teachers and school achievement as indicators. Klaurens (1972:130) concurred that an important work-related value for a student to possess is efficient use of time, materials and other resources that represent costs to employers.

Fourth, Shartle suggested adjustment to supervision as a general qualification. Nearly all occupations require the incumbent to work under some sort of supervision, and supervision received in the work situation is often far from ideal. Many persons lose or quit their jobs because of their individual inability to work with other employees and/or their employer (Cross, 1975:333).

Fifth, Shartle discussed educational level for a particular position. What education is actually required to perform a job and how much education that employer requires for hiring may differ based on demand and supply for the position. To make students more employable, Allen (1974:134) advocated that vocational education instruction must first concentrate on student learning attainments and then gradually involve the conditions found within an occupation in the instructional setting as the students gain in skills and knowledge.

Cross (1975:332-333) pointed out:

> Employability is important to the individual who desires to be successful in both his career and personal life. What is employability? It is the state of being employable, of possessing those qualities which the employer requires. They may be standards of workmanship including neatness, efficiency, creativeness, quality production, and use of accepted procedures. Personal characteristics needed for employability frequently make the difference between job success and failure, even more so than do occupational skills. Personal qualities needed may include personal appearance, promptness, pleasant attitude, cooperativeness with fellow workers, and ability to take criticism and direction.

The qualities discussed by Cross parallel and expand what was suggested by Shartle.

In a book entitled Personal Adjustment to Business (1958:83) Gates and Miller supported Cross and Shartle. They also added that an employer actually looks for personnel who will: (1) learn their jobs rapidly, (2) work with reasonable efficiency, (3) accommodate to others with a minimum of friction, (4) seek for and take on every

opportunity for more responsibility, (5) show a sense of loyalty, and (6) conduct themselves with integrity.

In another educational setting, the training of delinquents for jobs, Ray (1967:8) differed slightly on the areas of concern stressed for employment. Ray felt that there should be academic remediation, work preparation, and social conduct. Academic remediation consisted of reading, study habits, and responsibility. Stressed in work preparation were arriving on time, remaining on the job, following instructions, completing the job satisfactorily, and basic work skills. Social conduct dealt with respect for others, and proper work etiquette.

Oklahoma State University (1966:25) expanded the list and offered a suggested curriculum that included non-technical employment qualities that should be taught students for the agricultural occupations. It was recommended that additionally students should receive direction in appearance, honesty and dependability, loyalty, resourcefulness, imagination, enthusiasm, courtesy, tact, how to get along with fellow employees, and how to get along with supervisors.

Wall (1967:18) viewed employment and training requirements for non-farm agricultural occupations from a different perspective. He discussed the importance of entry age related to responsibilities. Wall stated, however:

> Desired age requirements would be relegated to a secondary position if the person being considered for a job showed an above average maturity level with regard to acceptance of responsibility, integrity, mental and emotional stability, and initiative in his work habits.

Klaurens (1972:30) pointed out the importance of developing the proper work-related values in students. She stated: "Follow-up studies of reasons why people lose their jobs usually show their attitudes, motivation, personality factors, and other behaviors that involve choices are the principle reasons for terminating employment." Klaurens continued:

> Employers seldom express dissatisfaction with the occupational skills beginning workers bring to their jobs, but they are forever reminding vocational teachers they must turn out beginning workers who have "good" attitudes and the motivation to work.

A guide with additional qualities was offered by Klaurens suggesting work-related values that should be a part of all vocational courses. The guide included:

1. Honesty in handling money, records, tools, materials, or merchandise.
2. Cooperation and respect for co-workers, supervisors, and employers.
3. Efficient use of time, materials and other resources that represent costs to employers.
4. Service to customers, clients, or patients.
5. Industriousness and commitment to the profit goal and maximum productivity.

6. Receptivity to direction and supervision.

7. Dependability and loyalty to employers in matters of confidence and company image.

8. Ethical practices in competition.

9. Thrift and planning in managing person resources.

10. Maintenance of health and appearance conducive and appropriate for the work.

11. Civic and social responsibility as citizen-workers in the community, state, and nation.

12. Dignity and social contribution to work.

Teske (1972:61) viewed instruction in a humanistic way and warned that:

> Instructional activities must be appropriate to the interests, needs, and abilities of the individual student. The personal development of the student must be placed above the acquisition of facts or the skills performance of manipulative activities; thus, the instructional activities must provide for the development of ideals, standards, interests, skills, abilities, understandings, attitudes, appreciations, and creative judgement in the areas of health, vocational proficiency, social activities, civic responsibilities, family life, vocational, and other areas to meet the student's needs.

Personal development and personal characteristics such as self-concepts, interests, personality patterns, levels of motivation, leisure activities and social skills were all placed at a high level of importance by Woodin (1966:37). Woodin discussed the personal characteristics for business education students and their necessity for employment.

Loreen (1967:22) indicated that most non-farm agricultural jobs in the State of Washington required employees to get along well with supervisors and with fellow workers.

A consciousness for career performance has surfaced in the elementary schools in recent years as well. One reason was the feeling that an individual's school habits and attitudes carry over throughout life. Attitudes recommended for development were:

1. The development of a sense of responsibility is a prime consideration of education and is also basic to effective future career performance.

2. The development of positive attitudes towards all educational opportunities is a challenge which schools must meet if the individual is to approach even remotely the achievement of his human resource potential.

3. The development of positive attitudes towards all honest work and the endeavors of others may affect career decision making and on-the-job adjustments.

4. A positive attitude towards one's self is essential for the individual's development and adjustments throughout life.

5. A regard for the viewpoints and rights of others is important in the classroom, on the job, and for membership in a democratic society (Gibson, 1972:26).

In Careers in Marketing, Bikkie (1971:3) agreed and explained seven competencies necessary for employment in marketing. He stated that students should have (1) good aptitudes, (2) determination, (3) intelligence, (4) right physical makeup, (5) good temperament, (6) good character, and (7) personality. Hiserodt (1969:32) tells

students they must have the right attitudes for employment in marketing. He further defined the all encompassing term attitude as dedication, acceptance of change, alertness, cost consciousness, desire to work, integrity, loyalty, desire to serve others, and a desire for self-improvement.

In dealing with apprenticeship programs, Hedinger (1967:9) felt much the same as coordinators of cooperative work experience. Hedinger suggested that the related training in the classroom for apprentices should include the evolvement of proper attitudes and human relations and the adjustment to social problems encountered in the world of work.

Students will have to have acceptable work habits if they are to be successful on the job. Good work habits can be defined variously as being industrious, thorough, clean, punctual, displaying safe practices and craftmanship, and contributing to team and individual effort (Borrow, 1974:138).

Cooperative Work Experience Student Selection Criteria

Several methods are used to select students for cooperative work experience programs. The criteria for selection also varies considerably. Recommendations are solicited in many instances from former teachers of the student applying. Mason and Haines (1972:174)

illustrated what qualities a student might be asked to possess. Included are:

> Dependability: able to work with little supervision, prompt, truthful, sincere, consistent, follows instruction.
>
> Cultural Refinement: Courteous, considerate, respectful, mannerly.
>
> Leadership: Aggressive, forceful, shows good judgment, imaginative, resourceful, able to inspire others to act.
>
> Industriousness: Persistent, has good habits of work, makes wise use of time.
>
> Mental Alertness: Attentive, interested, observing, eager to learn, has good memory.
>
> Thoroughness: Accurate, careful, completes work.
>
> Personal Appearance and Grooming: Clean, not offensive has neat appearance, shows orderliness, has poise.
>
> Ability To Get Along With Others: Tactful, friendly, cooperative, has sense of humor.
>
> Social Habits: Has good attitude, has self-control, honest, not inclined to argue, not given to excessive or loud talking.

It was suggested by Festante (1965:26) that students be taught personal appearance and grooming, to assume responsibility, development of good working habits, how to develop the relationships necessary between workers and workers, and workers and supervisors, and development of self-reliance and self-confidence.

The University of Minnesota (1969:20-21) offered an extensive expanded checklist of student characteristics that are desirable for

employment. The list includes:

A. Academic ability
   - IQ range
   - Grade record
   - Creativity
   - Over- and under-achievers

B. Vocational interests
   - Student's career goals
   - Student's plans for future location of employment
   - Parental occupations
   - Grades in related field courses
   - Co-curricular and extra-curricular activities
   - Vocational interest test scores

C. Educational background and qualifications
   - Potential to communicate well
   - English grades, speech
   - Reading ability
   - Arithmetic ability
   - Curriculum followed to date
   - Pre-employment and prerequisite courses and grades

D. Emotional stability
   - Control of temper
   - Nervousness
   - Temperament

E. Personality factors
   - Introvert-extrovert
   - Self-starter, lethargy
   - Sense of humor
   - Physical characteristics
   - General outlook on life

F. Character
   - Honesty
   - Loyalty
   - Morals
   - Ambitions

G. Health
   - General health
   - Stamina

H. Aptitudes and talents
   - Art ability
   - Color perceptability
   - Manual dexterity
   - Clerical aptitudes

I. Parental aspirations for their child

J. Socio-economic background
   - Socio-economic level of family
   - Occupations of parents and other relatives
   - Need to supplement family income
   - Career patterns of parents
   - Nature of home life

K. Vocational maturity
   - Expressed interest in occupation
   - Work experience record
   - Willingness to assume responsibility
   - Record of attendance and punctuality
   - Work habits

Oregon (1970:17) proposed the following questions be asked of a student's qualifications for entry into a cooperative work experience program:

1. Are the student's abilities such that he will be able to perform the job to which he is assigned?

2. Is the student genuinely interested in work experience education?

3. Does the student have a satisfactory record in school?

4. Is the student sufficiently mature to profit from the training?

5. Is the student prompt and dependable?

6. Does the student use initiative?

7. Is the student of legal age for employment?

8. Is the student neat and well groomed?

9. Does the student have good habits?

10. Is the student furthering his particular education and/or vocational needs by enrolling in work experience education?

A California guide for cooperative distributive and office education programs (Levendowski, undated:29) advocates that several factors such as career objectives, health, maturity, personality, school attendance, and scholastic record be considered in student selection for training programs. It is recommended that special attention be given to the achievement in the course work related to the students' career goal.

In Montana (1972:91) the selection criteria for cooperative work experience programs are broadly written and take a different approach. They are:

1. Students being considered may have a wide range of exposure toward work. Students enrolling in the cooperative program will have a wide range of work experience. Some of these students will never be exposed to the world of work, whereas other students will have several years of work experience before enrollment in the cooperative program. The teacher-coordinator must prepare to deal with this wide range of student exposure to the working world.

2. The selection process should identify those who can benefit from this type of program. The main objective of students should be to develop vocational capabilities that will enable them to advance more rapidly in a satisfying career.

3. Attitudes toward school will also vary widely and should be understood by those involved in student selection. Young dropouts and potential dropouts may range from those unconcerned with the rewards of earning a living to those with well defined career objectives and willingness to develop

their capabilities. The same could be true of regularly enrolled students at all educational levels.

4. The categories of individuals who may be considered for selection may fall into a vast range of distinct groups. These groups include gifted and talented students as well as slow learners and mentally retarded, physically handicapped, emotionally disturbed, juvenile delinquents and various disadvantaged youth.

5. The students career objective. The students career objective should enable him to be prepared for this occupation through the particular cooperative program.

One author, Jurist (1967:9) felt that a student's success in business is dependent upon many factors such as "personality," "social qualities," "mental ability," "natural intelligence," and "training" and because of that an average I.Q. or below average should not prevent the student from a business program. Huffman (1967:70) would select students for cooperative programs using:

a. Interest

b. Mental Capability

c. Physical Suitability

d. Moral Responsibility

e. Social Adaptability

f. Educational Background

g. Disciplinary Record

h. School Attendance Record

i. Age

j. Hobbies

k. Past Work Experience

l. Personality Characteristics

m. Sex

n. Recommendations

o. Other School Activities

In A Handbook for Coordinators of Part-time Cooperative Training Programs in Trade and Industrial Education (Mississippi, 1964:32), it is stated that there are many aspects of a student's life which the coordinator should study to enable her/him to understand more fully the student and her/his potentialities. Before selection the coordinator should gather information pertaining to the students:

1. Ability to learn
2. Past achievement, including courses studied, grades received, and results of standardized tests.
3. Interests, hobbies, and activities
4. Aptitudes
5. Personal-social development
6. Health status
7. Home and family background
8. Possible past work experience

In agreement, Utah (1976:III-12, 13) suggested that selection criteria include:

1. Occupational Interest - career objectives which can be met by the training program.

2. Minimum educational requirements - the teacher-coordinator must exercise judgement to assure minimum educational requirements. Do not screen out those likely to profit from and be successful as a career employee.

3. Interest in training program - students who have a definite interest in and desire to receive all the training that is provided. Interest will compensate for many other past failures.

4. Past record - student's past records such as attendance, grades, work habits, and attitudes toward school in general should not prohibit entrance into the program.

5. Personal characteristics and traits - students should possess or be willing to develop personal traits that best fit their chosen occupation, i.e., appearance, speech, skills, dependability, accuracy and initiative.

6. Student having own part-time job - students who already have part-time jobs and meet the standards for selection may continue this employment if it meets the qualifications as a training station and if the employer is willing to provide a wider variety of experiences when desirable.

7. Permission of parents and school administration - student must have received written permission from their parents before final enrollment.

A performance based vocational teacher training module for the Dade County Public Schools in Florida characterized the main criteria for student selection by listing:

The student must be at least 16 years of age.

The student must have a stated vocational objective for which training has been given or is being received.

The student must be available for placement on a part-time job, for a minimum of 15 hours, not to exceed 40 hours per week, at a selected and approved training station.

The student must indicate a willingness to work and exhibit honesty, dependability, and cooperation.

The student should have the intelligence, interest, aptitude, emotional maturity, and personality to indicate that the program will be beneficial to him.

The student should have the physical stamina needed to attain his vocational objective.

The student should possess the moral character and personal qualities necessary to satisfactorily represent the school in the business community (Wilson, 1974:12).

Similar criteria have been developed by Linson and Anderson for the agricultural occupations (1964:33). They wanted coordinators to consider:

a. Students who have a definite occupational objective.

b. Students whose parents approve of their participation in the program.

c. Students who have shown that they possess the ability and willingness to work.

d. Students who will be at least 16 years old when the work experience starts.

e. Students who possess leadership potential.

f. Students who have done well in other subjects.

g. Students who have maintained good school attendance records.

h. Students who will be able to work the minimum required hours.

i. Students with transportation.

j. Students interested in occupations in which adequate training is available.

k. Students who do not possess any handicap which would prevent them from being hired.

1. Students of high moral character.

Research in the distributive occupations completed by Harris (1971:31) reported the response to a question asking employers what personal characteristics are desirable in distributive education students. Employers ranked the choices in this order: Honesty, dependability, punctuality, cooperation, desire to learn, neat appearance, mental maturity, tact, self-confidence, and physical maturity. Research studies such as the Harris study lend credence to the writings of other authors.

Korkowski and Krueger (1972:59) surveyed employers in Central Minnesota and asked them to rate characteristics on a scale of importance for hiring. Results indicated that all employers considered attitude as very important or most important as a hiring standard. Attitude was not defined for the respondents. Other hiring standards that were rated were: previous work experience, entrance tests, specific sex for a particular job, specific age group for a particular job, family stability, high school diploma, abilities, interest, appearance, references, criminal record, education above high school, and proximity to work. In Oregon (Douglas I. E. D., 1975:48) one study found the characteristics mentioned most often as desirable in an entering employee were willingness to work and assume responsibility, loyalty, personableness, and neat appearance.

Research of the educational needs for workers in off-farm

agricultural business produced a list of 20 personal characteristics valued in workers (Baker, 1966:7). The personal characteristics include:

Works regularly and on time.

Gets along with his fellow workers.

Fulfills promises and obligations.

Initiates undertakings.

Completes his work.

Speaks clearly and correctly.

Makes wise use of time.

Can express his ideas well.

Is orderly in this work.

Exhibits personal cleanliness and neatness.

Uses good English in written form.

Is honest in word and deed.

Admits error when shown wrong.

Possesses forceful personality.

Seems happy in his work.

Arouses enthusiasm in his fellow workers.

Exhibits endurance in continued effort.

Shows intellectual curiosity.

Places group above himself.

Participates in civic activities.

An employer study of 255 business and industry employers reported on by Endicott (1976) to the Western College Placement Association revealed the most important single factor considered on all counts when companies hire was personal traits. Personal traits were maturity, initiative, enthusiasm, poise, and the ability to work with people. The same was the case 30 years ago when the same question was asked employers.

A workshop at Timothy Lake Lodge, Mt. Hood, Oregon sponsored by the Institute for Public Affairs Research and the Interinstitutional Consortium for Career Education (1976) produced a list of "attitudes" valuable in the work place. The list included the 16 following:

1. Consideration of others
2. Tolerance
3. Initiative
4. Resourcefulness
5. Individual values
6. Accountability
7. Non-dogmatic, i.e. can search for viable answers to problems without worrying how they fit in with personal "Issues"
8. Universality, i.e. can understand, communicate and empathize with a variety of persons.
9. Flexibility

10. Open-minded, i.e. willing to accept the idea that there is no objective truth; can deal with a range of "Truths"

11. Confidence

12. Desire to continue learning

13. Sincerity

14. Belief in the "Work Ethic"

15. Self-discipline

16. Creativity

A recent issue of the American Vocational Journal (Wright, 1975:68) carried an article called, "They Don't Hire the Uglies." The article reported the results of a doctoral study that concluded that concepts of beauty are used as an employment guage by men and women who hire. Without knowing the applicants skill level, all of the male and female personnel directors in the study chose the most attractive applicant on first impressions alone, and female personnel directors stressed attractiveness more than males. The article stated, "Vocational educators should find out what the hiring criteria in their occupational areas are and do all they can to help students cope with them."

Fisher (1968:85) provided support for others with a study that revealed:

> Personal qualifications were repeatedly emphasized by employers, and appear to dominate the whole entry scene. The most common single requirement was the records check, apparently undertaken as an indicator of honesty,

dependability, and other character traits.

Also important are health, in terms of food handlers' permits, insurance and job performance, attitudes and appearance. In connection with these, the impressions formed by the personnel interviewer became of paramount importance to the applicant's chance. Appearance and grooming during the interview seem to have a disproportionate impact on employability, even where they are not functionally related to the job.

Among the essentially intangible factors which significantly affect employability are honesty (especially important in sales and office jobs), and dependability (as reflected in terms of absenteeism, school and job records, etc.). Even completeness and correctness with which the application form is filled out is considered, and a falsification is usually grounds for rejection or dismissal.

Research Questions

This study was conducted to seek answers to two primary questions. The first question was: What are the non-technical employment qualities needed by students participating in secondary cooperative work experience programs? Below are non-technical qualities that were mentioned or indicated in the related literature. The qualities are listed in the order that this writer judgmentally determined as the relative emphasis placed on the qualities by their advocates combined with the frequency that the qualities were mentioned.

1. Pleasant personality
2. Personal appearance
3. Cooperates with fellow workers

4. Cooperates with supervisors
5. Initiative
6. Physical condition/health
7. Honesty
8. Social skills/conduct
9. Vocational/career interests
10. Communication skills
11. Uses time efficiently
12. Self-concepts/self-confidence
13. School records/acceptable grades
14. School records/acceptable attendance
15. Promptness
16. Sense of responsibility
17. Leisure interests/activities
18. Mental ability
19. Tact
20. Thoroughness
21. Follows instruction
22. Moral character
23. Imagination
24. Educational level
25. Ability to take criticism
26. Enthusiastic

27. Motivation

As a secondary question: Do the employers in the six occupational areas included in the study agree on the importance of each non-technical employment quality? The following null hypothesis can be stated for each quality:

H_o: There is no significant difference in each desired non-technical employment quality as perceived by employers in the occupational areas of agriculture, business and office, distribution, health, home economics, and trades and industries.

The second major question was: Do coordinators of cooperative work experience programs and counselors who work with cooperative work experience students have the same perceptions of the non-technical employment qualities as do employers? To test the second major question, the following null hypothesis can be stated for each non-technical quality:

H_o: There is no significant difference in each desired non-technical employment quality as perceived by employers, coordinators and counselors.

III. METHODOLOGY

Population and Sample

For the purposes of this study, three (3) distinct and separate populations in Utah were used. The populations were: (1) employers actively participating in secondary cooperative work experience programs; (2) secondary school coordinators of cooperative work experience; and (3) counselors who advise students participating in the programs. Separate samples were randomly selected from each of the populations using a table of random numbers.

The first sample to be selected was the coordinators of cooperative work experience programs. Ten (10) names were randomly selected from each of six lists of secondary coordinators provided by the Utah State Board of Education's Vocational Specialists. A total of sixty (60) coordinators' names were selected. Coordinators were involved in coordinating programs in the occupational areas of: agriculture, business and office, distribution, health, home economics, and trades and industry. A table of random numbers (Downie and Heath, 1974:347) was used to select coordinators from each list.

Each coordinator selected to participate in the study was asked to provide a list of names and addresses of employers participating in cooperative work experience programs during the 1976-1977 academic

year (Appendix A). If the coordinator did not respond, a second request was made two weeks after the first request. The employer lists were combined for each occupational area and a sample of ten (10) employers was randomly selected using a random number table for each occupational area. A total of sixty (60) employers were selected.

Participating coordinators were also asked to provide a list of names and addresses of counselors who were representative of counselors who advise students participating in cooperative work experience programs. Those lists were combined, and a sample of sixty (60) counselors was randomly selected. A table of random numbers was again used in the selection.

Returned responses totaled 60 employers, 55 coordinators, and 49 counselors for a combined total of 164. Table 1 further delineates the returned responses.

Table 1. Number and Percentage of Employers, Coordinators, and Counselors Returning the Survey Instrument (Sixty Participants Were Originally Selected from Each Group)

Group	Respondents	
	Number	Percentage
Employers	60	100.00
Coordinators	55	91.67
Counselors	49	81.67

Instrumentation

One instrument was utilized for collection of data from the three sample groups. The instrument was developed and validated as a part of this study. Development of the instrument began with an extensive review of the literature. The investigator identified what appeared to be the most important non-technical employment qualities for secondary students. The qualities were stated in behavioral terms and respondents could indicate the level of importance of the quality on a scale of importance. The instrument is shown in Appendix B.

The initial instrument was first subjected to an out-of-state panel for review to establish content validity (Downie and Heath, 1974: 243) of the items. The out-of-state panel was made up of teacher-educators, the State Vice-Presidents of the Western Association of Cooperative Work Experience Coordinators of the states contiguous to Utah. Those states included Idaho, Nevada, Arizona, New Mexico, Colorado, and Wyoming. The form used for validation and the cover letter are contained in Appendix C.

Suggested changes were made in the instrument following the out-of-state panel review. The instrument was then submitted to a panel made up of cooperative work experience coordinators, counselors, employers, teacher-educators, and State Department of Education supervisors in Utah. The instrument was further revised and

field tested for understandability of each item. In this revision, four items were added that would more than likely elicit responses which would be different if the respondent was answering all items at the same level of importance. The items added that would more than likely vary responses were:

5. The student is willing to join a union.

10. The student must have a driver's license.

20. The student must be at the top of the class academically.

25. The student will know the advantages, disadvantages, and requirements of union membership

The qualities related to unions were inserted because membership in organized labor is minimal in Utah. Furthermore, it was felt that most occupations do not require a driver's license. Finally, occupations that students would enter from the vocational areas being surveyed would not require outstanding academic performance. Therefore, it was believed that respondents would rate the four additional qualities as having relatively little importance.

Included in the field test were five each of employers, counselors and coordinators. The field test was done primarily for semantical purposes and on an individual, face-to-face basis. The instrument was then finalized.

A cover letter was developed to accompany the instrument and provide an explanation of its purpose (Wentling and Lawson, 1975:181).

The respondent must be convinced that her/his contribution will be of some use and will warrant the time spent on completing the instrument. The letters are illustrated in Appendix D.

Procedures

The instrument was printed on colored paper to stimulate a larger response and mailed to teacher-coordinators on April 8, 1977, and to employers and counselors on April 22, 1977. A self-addressed, stamped, return envelope was included with the instrument (Wentling and Lawson, 1975:183).

Another method to increase total response rate was to follow up non-respondents. Instruments were coded so non-respondents could be more easily identified. Precautions were taken for the protection of human subjects. No names were requested on the survey instrument. To avoid possible seizure and matching of codes with the list of participants, names of participants were kept in one file, and addresses and codes in another. A meaningless code was used. The lists were destroyed after the data were collected.

Non-responding coordinators were mailed a duplicate instrument, again using colored paper, and another self-addressed, stamped envelope, on April 22, 1977. The second mailing was accompanied by the letter shown in Appendix E. Non-responding counselors were mailed a duplicate colored instrument on May 9, 1977. A stamped,

return envelope was again used for the respondent to return the survey instrument. The letter shown in Appendix E was enclosed with the second instrument.

After the second mailing, non-respondents were allowed two weeks to return the completed instrument. After that time, the non-respondents were called on the telephone and urged to return the survey instrument.

Data Analysis

All the data collected for this study were analyzed through the services of the Utah State University Computer Center. All data on the instruments were coded and keypunched on data cards for computer assisted analysis.

Research question number one was addressed by first computing the mean scores and confidence intervals on the responses by employers, coordinators, and counselors. The qualities were then ordered by the mean of the employers' responses, more clearly showing the importance placed in each quality. In addition, the one-way analysis of variance (Courtney and Sedgwick, 1974:37) at the .05 level of confidence was used to test for difference between the occupational areas represented in the study for each quality on employer responses.

Where a significant difference was found, multiple comparisons were made to see where the difference or differences appeared.

The test for least significant difference (LSD) was used, again at the .05 level of significance (Courtney and Sedgwick, 1974:452). The ratio is calculated using the following formulas:

When cells are of equal size,

$$LSD = \underline{t} \sqrt{2MSE/N} \quad \text{where}$$

$\underline{t}$ = $\underline{t}$ from Student's $\underline{t}$ Table

MSE = mean square error

N = number of cases in each subgroup

Subgroup refers to occupational area.

When cells are of unequal size,

$$LSD = \underline{t} \sqrt{MSE(1/n_1 + 1/n_2)} \quad \text{where}$$

$\underline{t}$ = $\underline{t}$ from Student's $\underline{t}$ Table

MSE = mean square error

n_1 = cases in subgroup one

n_2 = cases in subgroup two

Subgroup refers to coordinators, employers or counselors.

Significant difference was found by comparing the difference between means of the subgroup with the computed least significant difference.

Research question number two was tested by using the one-way analysis of variance to test for significant difference between employers, coordinators and counselors for each item on the survey

instrument. Where a significant difference was found between groups, the test for least significant difference was used to determine where the difference or differences appeared.

IV. FINDINGS

The data for this chapter were obtained from two sources. The review of literature and validation process determined the non-technical employment qualities to be included in the instrument, and data were collected through the survey instrument.

For the purpose of reporting the findings, this chapter was divided into two sections. The sections included a ranking of employers' responses by means and analysis of variance.

Ranking of Employers' Responses

The information in this section shows the importance of each of the items on the instrument as rated by the employers of secondary students participating in cooperative work experience programs. Table 2 shows the rank, the mean score, and confidence interval for each non-technical employment quality. A discussion of the table is also included.

By determining the confidence interval for each item, it was determined that location could vary to a large degree. As an example, the quality "the student arrives for work and appointments on time," with a mean score of 2.9333 ranked number one. With a 95 percent confidence interval of 2.8903-2.0763 the quality could have ranked as low as number eight.

Table 2. Ranking of Non-technical Employment Qualities by Importance as Determined by Employers' Mean Scores

Rank	Quality	Mean	95% Confidence Interval
1.5	The student arrives for work and appointments on time.	2.9333	2.8903-2.9763
1.5	The student is honest with the employer, public, peers, and supervisors.	2.9333	2.8663-3.0003
3	The student uses time to the best advantage of the company.	2.9167	2.8220-3.0113
4	The student completes work in a thorough manner	2.9000	2.8224-2.9776
5	The student follows instructions as they are given.	2.8833	2.8176-2.8987
6.5	The student cooperates with fellow workers.	2.8333	2.7448-2.9212
6.5	The student cooperates with supervisors.	2.8333	2.7222-2.9444
8	The student can take criticism when shown what has been done wrong.	2.7833	2.6547-2.9119
9.5	The student shows a sense of responsibility for undertakings	2.7667	2.6575-2.8759
9.5	The student is mentally capable to perform job activities.	2.7667	2.6538-2.8796
11.5	The student shows initiative to perform on the job.	2.7167	2.6048-2.8286
11.5	The student shows tact in relationships with others.	2.7167	2.5992-2.8341

Table 2 (continued)

Rank	Quality	Mean	95% Confidence Interval
13	The student is physically suitable and in good health for the job.	2.6667	2.5443-2.7890
14	The student shows enthuiasm for the tasks to be performed.	2.5167	2.3795-2.6539
15	The student has a pleasant personality.	2.4667	2.3189-2.6145
16.5	The student can communicate effectively with others.	2.4333	2.2298-2.5687
16.5	The student is of good moral character.	2.4333	2.2471-2.6195
18	The student has a personal appearance suitable for the job.	2.4167	2.2599-2.5735
19	The student is motivated toward greater achievements.	2.3833	2.2069-2.5597
20	The student has positive self-concepts and is self-confident.	2.3667	2.2236-2.5098
21	The student displays social skills and conduct acceptable to others.	2.3167	2.1560-2.4774
22	The student has attained an educational level equivalent to the job to be performed	2.2167	2.0383-2.3950
23	The student has imagination which allows for creative performance.	2.0833	1.9187-2.2479
24	The student has interests in addition to work.	1.9500	1.7716-2.1280

Table 2 (continued)

Rank	Quality	Mean	95% Confidence Interval
25	The student has career and vocational interests in the area in which employment is sought.	1.9333	1.7438-2.1228
26	The student has school records showing good attendance.	1.8667	1.6687-2.0647
27	The student has school records showing acceptable grades.	1.5667	1.3805-1.7529
28	The student must have a driver's license.	1.2500	1.0070-1.4930
29	The student must be at the top of the class academically.	.7500	.5854- .9146
30	The student will know the advantages, disadvantages, and requirements of union membership.	.4500	.2285- .6715
31	The student is willing to join a union.	.1333	-.0254- .2921

Table 3 gives the order of importance placed by employers on the qualities and the order that the related literature appeared to indicate. It should be noted that the latter was judgmentally determined by this writer based on the frequency that the qualities were mentioned combined with the apparent emphasis placed by their advocates.

Analysis of Variance (Employers)

This section presents the results of analysis of the employers' ratings of importance for each non-technical employment quality. The null hypothesis tested was:

> There is no significant difference in each desired non-technical employment quality as perceived by employers in the occupational areas of agriculture, business and office, distribution, health, home economics, and trades and industries.

Appendix F summarizes the analysis of variance for all employer responses. Appendix G shows the means of employer responses for all occupational areas.

There was no significant difference between employers in the occupational areas of agriculture, business/office, distribution, health, home economics, and trades/industries for 28 of the 31 qualities. However, there was a significant difference between employers for the following non-technical employment qualities:

1. The student follows instructions as they are given.

Table 3. Order of Importance of Non-technical Employment Qualities as Perceived by Employers of Cooperative Work Experience Students and the Priority Assigned Judgmentally to Those Qualities Based on the Related Literature.

Quality	Employer Ratings	Related Literature
The student arrives for work and appointments on time	1.5	15
The student is honest with the employer, public, peers, and supervisors.	1.5	7
The student uses time to the best advantage of the company.	3	11
The student completes work in a thorough manner.	4	20
The student follows instructions as they are given.	5	21
The student cooperates with fellow workers.	6.5	3
The student cooperates with supervisors.	6.5	4
The student can take criticism when shown what has been done wrong.	8	25
The student shows a sense of responsibility for undertakings.	9.5	16
The student is mentally capable to perform job activities.	9.5	18
The student shows initiative to perform on the job.	11.5	5
The student shows tact in relationships with others.	11.5	19
The student is physically suitable and in good health for the job.	13	6

Table 3 (continued)

Quality	Employer Ratings	Related Literature
The student shows enthusiasm for the tasks to be performed.	14	26
The student has a pleasant personality.	15	1
The student can communicate effectively with others.	16.5	10
The student is of good moral character.	16.5	22
The student has a personal appearance suitable for the job.	18	2
The student is motivated toward greater achievements.	19	27
The student has positive self-concepts and is self-confident.	20	12
The student displays social skills and conduct acceptable to others.	21	8
The student has attained an educational level equivalent to the job to be performed.	22	24
The student has imagination which allows for creative performance.	23	23
The student has interests in addition to work.	24	17
The student has career and vocational interests in the area in which employment is sought.	25	9
The student has school records showing acceptable grades.	26	13
The student has school records showing good attendance	27	14

Table 3 (continued)

Quality	Employer Ratings	Related Literature
The student must have a drivers license.	28	*
The student must be at the top of the class academically.	29	*
The student will know the advantages, disadvantages, and requirements of union membership.	30	*
The student is willing to join a union.	31	*

* Note: Qualities ranked 28-31 by employers were added to encourage variability in responses.

2. The student shows enthusiasm for the tasks to be performed.

3. The student must have a driver's license.

The least significant differences are shown in Appendix H.

The differences in employers ratings on the importance of students following instructions appeared between health and trades/industries ($D = .4$, $LSD = .2798$, $ndf = 59$, $P < .05$); health and home economics ($D = .3$, $LSD = .2798$, $ndf = 59$, $P < .05$); and health and business/office ($D = .4$, $LSD = .2798$, $ndf = 59$, $P < .05$).

Health employers differed from all other occupational areas with the exception of agriculture. The mean scores shown in Appendix G indicate that health employers rate following instructions significantly lower than do all other employers. Agriculture employers are next to the lowest.

The differences in perception of the importance of students showing enthusiasm for tasks to be performed were between business/office and home economics ($D = .6$, $LSD = .522$, $ndf = 59$, $P < .05$); business/office and distribution ($D = .9$, $LSD = .522$, $ndf = 59$, $P < .05$); agriculture and distribution ($D = .6$, $LSD = .522$, $ndf = 59$, $P < .05$); and trades/industries and distribution ($D = .6$, $LSD = .522$, $ndf = 59$, $P < .05$); all other pairs were not significant.

The mean score for employers in the distribution area, an area with high public contact, was 3.0. No other occupational areas rated

enthusiasm as high. The business/office employers rated enthusiasm lower than all other employers.

The differences in the necessity of having a driver's license were between agriculture and health (D = 1.6, LSD = .827, ndf = 59, P < .05); agriculture and business/office (D = 1.1, LSD = .827, ndf = 59, P < .05); agriculture and home economics (D = 1.2, LSD = .827, ndf = 59, P < .05); agriculture and distribution (D = 1.5, LSD = .827, ndf = 59, P < .05); trades/industries and health (D = 1.3, LSD = .827, ndf = 59, P < .05); trades/industries and home economics (D = .9, LSD = .827, ndf = 59, P < .05); and trades/industries and distribution (D = 1.2, LSD = .827, ndf = 59, P < .05). No other pairs were significant.

It can be easily noted that the greatest differences were between agriculture and trades/industries on the one hand and most all other groups on the other. Employers in the agriculture and trades/industries areas tended to rate the need for a driver's license higher than the other occupational areas.

Speculatively, the differences could be attributed to the tasks that are performed in the occupational areas. Agriculture and trades/industries positions involve more driving tasks, such as grain delivery, or testing a front end alignment than would the other occupational areas. It is reasonable because of these types of tasks to expect a higher rating from those two occupational areas on the quality.

Analysis of Variance (All Groups)

The analysis of the ratings of importance of all the non-technical qualities for teacher-coordinators, employers, and counselors is presented in this section. The items were analyzed without regard for occupational areas. The null hypothesis tested was:

> There is no significant difference in each desired non-technical employment quality as perceived by employers, coordinators, and counselors.

Appendix I presents a summary of the analysis of variance for responses by teacher-coordinators, employers, and counselors. Appendix J shows the means of the ratings by the three groups.

Teacher-coordinators, employers, and counselors rated 25 of the 31 non-technical employment qualities similarly (Appendix K). However, teacher-coordinators, employers, and counselors rated the following non-technical employment qualities differently:

1. The student has school records showing acceptable grades.
2. The student is willing to join a union.
3. The student has positive self-concepts and is self-confident.
4. The student has a personal appearance suitable for the job.
5. The student has school records showing good attendance.
6. The student will know the advantages, disadvantages, and requirements of union membership.

The quality, "student has school records showing acceptable

grades," was significantly more important to counselors than it was to employers. Therefore, the difference was between employers and counselors (D = .3823, LSD = .2909, ndf = 163, P < .05). No other pairs were significant.

Counselors perceived students having acceptable grades as more important than did employers and teacher-coordinators. The rating could indicate an academic orientation of the counselors and the possible over emphasis to grades achieved in school.

Both teacher-coordinators (D = .7030, LSD = .2321, ndf = 163, P < .05) and counselors (D = .8054, LSD = .2389, ndf = 163, P < .05) differed from employers on willingness to join a union. Mean scores on this item were extremely low as is indicated in Appendix J.

The mean score of employers' ratings was signficantly lower than those of teacher-coordinators and counselors. Utah is predominately a nonunion state and a low rating by employers would be expected. Of the employers in the different occupational areas, only two, health and agriculture, rated union membership above zero. Health employers had the highest rating.

Both teacher-coordinators (D = 1.0227, LSD = .3222, ndf = 163, P < .05) and counselors (D = .9502, LSD = .3323, ndf = 163, P < .05) differed from employers in their perceptions of students knowing the advantages, disadvantages, and requirements of union membership. Ratings given knowledge of union membership were significantly higher

for the teacher-coordinators and counselors.

The respondents could have been looking at the item from different perspectives. The employers, being in a nonunion situation in most all cases, place very little importance in knowledge of union membership. Teacher-coordinators and counselors, realizing that some students will go out of state, possibly to unionized positions, would like to have the students more knowledgeable of unions.

The difference in perception in the student having positive self-concepts and being self-confident was between employers and counselors ($D = .3476$, $LSD = .2155$, $ndf = 163$, $P < .05$). Counselors rated the quality significantly higher than employers. Teacher-coordinators rated the quality higher than employers as well, but not significantly higher ($D = .1969$, $LSD = .2090$, $ndf = 163$, $P < .05$). The counselors' high ratings could indicate a developmental attitude taken by counselors as compared to employers. Employers might be more concerned with the completion of the task rather than individual development.

Teacher-coordinators and counselors placed more importance on personal appearance than employers. The differences were between teacher-coordinators and employers ($D = .3287$, $LSD = .2290$, $ndf = 163$, $P < .05$); and between counselors and employers ($D = .2568$, $LSD = .2362$, $ndf = 163$, $P < .05$).

Again, the ratings given by teacher-coordinators and counselors

were higher than those of employers. The emphasis given to personal appearance by teacher-coordinators and counselors could be a reaction to their training and dealings with sometimes conservative and strict dress codes in the schools.

Teacher-coordinators and employers perceived the importance of students having good attendance differently ($D = .333$, $LSD = .2891$, $ndf = 163$, $P < .05$).

As in other items with significant difference, teacher-coordinators and counselors rated good attendance records higher than employers. Employers would no doubt prefer to have employees at work, but if they miss, they are not paid and very often another employee does the work. Teacher-coordinators and counselors expect good attendance because students must do their work. That attitude appears to be reflected in the ratings by the educators.

V. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary of the Study

The Problem

This study was conducted to answer two primary questions. The first question was concerned with determining the most important non-technical employment qualities for students participating in secondary cooperative work experience programs and determine how important each quality was as perceived by employers. The second question was concerned with importance of the qualities as perceived by teacher-coordinators, employers, and counselors in Utah.

The Subjects

This study utilized teacher-coordinators, counselors and employers participating in secondary cooperative work experience programs in Utah. Subjects represented the occupational areas of agriculture, business/office, distribution, health, home economics, and trades/industries.

From lists provided by State Board of Education Specialists, a random sample of teacher-coordinators was selected to represent each occupational area. Teacher-coordinators were asked to provide names of employers and counselors with whom they cooperated. From

these combined lists, a random sample was selected for employers representing each occupational area and for counselors.

Each sample consisted of 60 for a combined total of 180 subjects. After two mailings and a telephone call to non-respondents, 55 (91.67 percent) of the coordinators responded. With one mailing, 60 (100 percent) of the employer responses were received. After two mailings and a telephone call to non-respondents, 49 (81.67 percent) of the counselors responded.

The Procedure

The investigator surveyed teacher-coordinators, employers, and counselors throughout the state of Utah. For this reason, a mailed survey instrument was determined to be the most effective method to gather data.

The survey instrument used in this study was developed and validated as a part of the study. The most important non-technical employment qualities were determined through an analysis of available literature. The following validation process was undertaken:

1. A panel of experts from out-of-state was asked to validate or suggest changes in the instrument.

2. Following changes in the instrument, an in-state panel of experts were asked to validate the instrument.

3. Additional changes were made and a small sample of

coordinators, employers, and counselors tested the instrument for reliability.

4. A final revision of the survey instrument was made prior to the first mailing in its final form.

The mailing of the instrument took place after the completion of the validation process. One mailing was necessary for employers, two for teacher-coordinators and counselors to obtain the final results.

Analysis of the Data

The analysis of the data was completed through the Applied Statistics Department and the Computer Center at Utah State University.

Computer programs from Utah State University's STATPAC were used to compile the data. The one-way analysis of variance routine was used.

Findings

Rankings of the importance of non-technical employment qualities on employer responses differed greatly from the order identified in the review of literature. The importance placed on the qualities by employers indicated the top 13 ranked qualities were highly important, the next 14 ranked qualities were moderately important, the qualities ranked 28th and 29th minimally important and the last two not

important. The four qualities ranked lowest were the qualities utilized in an effort to get respondents to vary their responses.

The analysis of variance on employer data indicated 28 qualities that were not significant. The three significant qualities were:

1. The student follows instructions as given;
2. The student shows enthusiasm for tasks to be performed; and
3. The student must have a driver's license.

There was no significant difference in 25 of the qualities when teacher-coordinators, employers, and counselors were considered. The six significant qualities were:

1. The student has school records showing acceptable grades;
2. The student is willing to join a union;
3. The student has positive self-concepts and is self-confident;
4. The student has a personal appearance suitable for the job;
5. The student has school records showing good attendance; and
6. The student will know the advantages, disadvantages, and requirements for union membership.

Conclusions of the Study

The following conclusions were drawn from the findings of this study:

1. Employers from the different occupational areas generally

agree on the importance placed on the non-technical employment qualities.

2. Teacher-coordinators, employers, and counselors tend to agree on the importance of the non-technical employment qualities. That is, counselors and teacher-coordinators appear to agree with employers on the importance of each competency.

3. There is more disparity in perceptions of the importance of the non-technical qualities between counselors and employers than between teacher-coordinators and employers.

4. Teacher-coordinators and counselors tend to agree on the importance of the non-technical employment qualities.

5. The importance placed on the non-technical employment qualities by employers in Utah is very different than the order of importance determined by the investigator through the analysis of the literature.

Recommendations

For Expansion of this Investigation

Using data which are at present available or which might be obtained in the future, this investigation might be expanded in several directions. Listed below are some of the possibilities.

1. The samples used in this study were restricted to the State

of Utah. This study should be replicated regionally and nationally to determine the order of importance of the qualities. Perceptions of teacher-coordinators, employers, and counselors may vary with the type of cooperative work experience program in existence.

2. This study was limited to those participating in secondary cooperative work experience programs. A similar study might be conducted utilizing post-secondary institutions.

3. The employers in this study were participants in cooperative work experience programs. Employers who are not cooperative work experience participants should be surveyed to determine any significant difference.

4. After sufficient time has passed, the study could be replicated to determine if the status of the population groups has changed. If there has been change, the direction of change should be examined.

For Curriculum Development

1. Teacher-coordinators, counselors, and employers should work closely with each other in developing curriculums and curriculum materials to develop non-technical employment qualities desirable for employment.

2. Teacher-coordinators and counselors should evaluate current curriculum materials utilized to develop non-technical qualities to be sure emphasis is in balance with the importance of the quality

being developed.

3. Teacher-coordinators, counselors, and employers should determine if the non-technical employment quality can best be developed in the classroom or on the job.

For Teaching Methods

Teaching methods to develop non-technical employment qualities must be evaluated in light of appropriateness for use.

For Teacher Education

1. Teacher educators must judge whether prospective teachers are adequately prepared to utilize methods of instruction necessary to develop non-technical employment qualities.

2. Courses in teaching methods must include methods of teaching non-technical employment qualities.

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APPENDICES

APPENDIX A

LETTERS AND FORM SENT TO TEACHER-COORDINATORS TO IDENTIFY EMPLOYERS AND COUNSELORS

UTAH STATE UNIVERSITY

COLLEGE OF BUSINESS
UMC 35, LOGAN, UTAH 84322
Phone (801) 752-4100 Ext. 7988

DEPARTMENT OF
BUSINESS EDUCATION

March 15, 1977

Dear Teacher-Coordinator:

How would you like to be a part of some new developments in teaching students enrolled in vocational programs? A study is underway that could lead to the development of new materials and teaching methods for non-technical employment skills. Because of your experience and expertise in cooperative work education programs, your help is vital.

Others will also be asked to assist in the study. To make sure the correct persons are contacted, would you please take a few moments to provide at least five names and addresses of employers with whom you cooperate in placing your students on the job? Also needed are the names of the counselors in your school who work with you and your cooperative work education students.

A form for names and addresses is enclosed with a return envelope. Please return the names and addresses as soon as possible. The survey form, which is brief and contains the skills being questioned, will follow in a short time. All information provided will be kept in complete confidence. If you would like a summary of the study when it is completed, please fill out the information below and it will be sent to you.

Sincerely,

Roger L. Luft

Please send me a summary of the study:

Name:

Address:

UTAH STATE UNIVERSITY

COLLEGE OF BUSINESS
UMC 35, LOGAN, UTAH 84322
Phone (801) 752-4100 Ext. 7988

DEPARTMENT OF
BUSINESS EDUCATION

March 31, 1977

Dear Teacher Coordinator:

You should have recently received an inquiry asking for your assistance in a study that is underway in Utah. Are you one from whom a response has not been received?

The importance of your assistance must be underscored because of your involvement in Cooperative Work Experience Programs. YOUR EXPERIENCE AND EXPERTISE IS NEEDED. It is only with your help that we will be able to assure that our students are receiving the kind of training that is necessary for successful employment.

Please take a few moments to complete the enclosed form and return it to me as soon as possible in the stamped return envelope. In a short time you will also be asked to complete a short questionnaire. If you would like to have a summary of the research when it is completed, please fill out and return the information below and a summary will be sent to you upon completion of the study.

Sincerely,

Roger L. Luft

dl
Enclosure

Please send me a summary of the study:

Name _____

Address _____

INDIVIDUALS PARTICIPATING IN COOPERATIVE WORK EDUCATION

Employers:

Name: _____
Company: _____
Address: _____
_____

Name: _____
Company: _____
Address: _____
_____

Name: _____
Company: _____
Address: _____
_____

Name: _____
Company: _____
Address: _____
_____

Name: _____
Company: _____
Address: _____
_____

Name: _____
Company: _____
Address: _____
_____

Counselors:

Name: _____
School: _____
Address: _____
_____

Name: _____
School: _____
Address: _____
_____

Name: _____
School: _____
Address: _____
_____

Name: _____
School: _____
Address: _____
_____

APPENDIX B

SURVEY INSTRUMENT

Identification ___ ___

NON-TECHNICAL EMPLOYMENT QUALITIES
SURVEY INSTRUMENT

Please rate by circling the level of importance for each item stated below and on the following pages as you view its necessity for secondary students seeking entry employment through cooperative work education programs. All items are non-technical employment qualities.

3 Highly Important

2 Moderately Important

1 Minimally Important

0 Not Important

1.	THE STUDENT ARRIVES FOR WORK AND APPOINTMENTS ON TIME.	0	1	2	3
2.	THE STUDENT FOLLOWS INSTRUCTIONS AS THEY ARE GIVEN.	0	1	2	3
3.	THE STUDENT SHOWS ENTHUSIASM FOR THE TASKS TO BE PERFORMED.	0	1	2	3
4.	THE STUDENT HAS SCHOOL RECORDS SHOWING ACCEPTABLE GRADES.	0	1	2	3
5.	THE STUDENT IS WILLING TO JOIN A UNION.	0	1	2	3
6.	THE STUDENT HAS POSITIVE SELF-CONCEPTS AND IS SELF-CONFIDENT.	0	1	2	3
7.	THE STUDENT HAS A PERSONAL APPEARANCE SUITABLE FOR THE JOB.	0	1	2	3
8.	THE STUDENT HAS INTERESTS IN ADDITION TO WORK.	0	1	2	3
9.	THE STUDENT COOPERATES WITH FELLOW WORKERS.	0	1	2	3
10.	THE STUDENT MUST HAVE A DRIVER'S LICENSE.	0	1	2	3
11.	THE STUDENT HAS ATTAINED AN EDUCATIONAL LEVEL EQUIVALENT TO THE JOB TO BE PERFORMED.	0	1	2	3

3 Highly Important

2 Moderately Important

1 Minimally Important

0 Not Important

12. THE STUDENT USES TIME TO THE BEST ADVANTAGE OF THE COMPANY.	0	1	2	3
13. THE STUDENT IS PHYSICALLY SUITABLE AND IN GOOD HEALTH FOR THE JOB.	0	1	2	3
14. THE STUDENT SHOWS TACT IN RELATIONSHIPS WITH OTHERS.	0	1	2	3
15. THE STUDENT IS MOTIVATED TOWARD GREATER ACHIEVEMENTS.	0	1	2	3
16. THE STUDENT COMPLETES WORK IN A THOROUGH MANNER.	0	1	2	3
17. THE STUDENT CAN TAKE CRITICISM WHEN SHOWN WHAT HAS BEEN DONE WRONG.	0	1	2	3
18. THE STUDENT HAS SCHOOL RECORDS SHOWING GOOD ATTENDANCE.	0	1	2	3
19. THE STUDENT SHOWS INITIATIVE TO PERFORM ON THE JOB.	0	1	2	3
20. THE STUDENT MUST BE AT THE TOP OF THE CLASS ACADEMICALLY.	0	1	2	3
21. THE STUDENT COOPERATES WITH SUPERVISORS.	0	1	2	3
22. THE STUDENT IS OF GOOD MORAL CHARACTER.	0	1	2	3
23. THE STUDENT DISPLAYS SOCIAL SKILLS AND CONDUCT ACCEPTABLE TO OTHERS.	0	1	2	3
24. THE STUDENT CAN COMMUNICATE EFFECTIVELY WITH OTHERS.	0	1	2	3
25. THE STUDENT WILL KNOW THE ADVANTAGES, DIS-ADVANTAGES, AND REQUIREMENTS OF UNION MEMBERSHIP.	0	1	2	3

3 Highly Important

2 Moderately Important

1 Minimally Important

0 Not Important

26. THE STUDENT SHOWS A SENSE OF RESPONSIBILITY FOR UNDERTAKINGS.	0	1	2	3
27. THE STUDENT IS HONEST WITH THE EMPLOYER, PUBLIC, PEERS, AND SUPERVISORS.	0	1	2	3
28. THE STUDENT IS MENTALLY CAPABLE TO PERFORM JOB ACTIVITIES.	0	1	2	3
29. THE STUDENT HAS IMAGINATION WHICH ALLOWS FOR CREATIVE PERFORMANCE.	0	1	2	3
30. THE STUDENT HAS CAREER AND VOCATIONAL INTERESTS IN THE AREA IN WHICH EMPLOYMENT IS SOUGHT.	0	1	2	3
31. THE STUDENT HAS A PLEASANT PERSONALITY.	0	1	2	3

THANK YOU

APPENDIX C

COVER LETTER AND VALIDATION FORM

UTAH STATE UNIVERSITY

COLLEGE OF BUSINESS
UMC 35, LOGAN, UTAH 84322
Phone (801) 752-4100 Ext. 7988

DEPARTMENT OF
BUSINESS EDUCATION

February 1, 1977

Dear Expert:

Your expertise and experience in cooperative work experience programs is vitally needed. The enclosed survey instrument will soon be used to collect data for research currently underway. Your help in validating the instrument would be greatly appreciated.

You do not have to complete the instrument, rather look at each item very critically for:

1. Clearity;
2. Completeness;
3. Overlap; and
4. Thoroughness of the entire instrument.

Please make comments on the attached VALIDATION FORM. You will note that all of the items deal with Non-Technical Employment Qualities.

I know you are busy, but please take a little time to assist in a valuable effort. After completing your validation, return the VALIDATION FORM in the stamped, self-addressed envelope. Your assistance is greatly appreciated. Thank-you.

Sincerely,

Roger L. Luft

em
Enclosures

VALIDATION FORM

Completeness of items:

Incomplete items (if any)-

Explanation-

Overlap:

Items that overlap (if any)-

Explanation-

Clearity:

Unclear items (if any)-

Explanation-

Thoroughness of Instrument:

Instrument should include-

Explanation-

APPENDIX D

FIRST COVER LETTERS SENT TO RESPONDENTS

UTAH STATE UNIVERSITY

COLLEGE OF BUSINESS
UMC 35, LOGAN, UTAH 84322
Phone (801) 752-4100 Ext. 7988

DEPARTMENT OF
BUSINESS EDUCATION

April 8, 1977

Dear Teacher-Coordinator:

In recent letters you have been told your assistance is needed to determine the importance of non-technical employment qualities for students entering employment. Now is your chance to provide information that is vital to the development of teaching materials and methods of instruction for non-technical qualities.

To assure the success of the research currently underway, please take a few moments to answer the enclosed survey instrument. All that is necessary is for you to rate the importance of each of the items. A stamped return envelope is provided for you to return the survey instrument.

All information is in strict confidence. Precautions have been taken to assure confidentiality. The identification code on the intrument is for accounting purposes only.

After you have completed the short instrument, put it in the return envelope and return it at your earliest possible convenience. Your cooperation is appreciated.

Sincerely,

Roger L. Luft

em

UTAH STATE UNIVERSITY

COLLEGE OF BUSINESS
UMC 35, LOGAN, UTAH 84322
Phone (801) 752-4100 Ext. 7988

DEPARTMENT OF
BUSINESS EDUCATION

April 22, 1977

Dear Counselor:

Your help is needed. A study is currently underway in Utah to determine the importance of non-technical employment qualities for students entering employment through Cooperative Work Education programs. The assistance you provide will be instrumental to the development of teaching materials and methods.

Please take a few minutes to answer the short survey instrument that is enclosed. After rating the importance of each item for entry employment, return the instrument in the enclosed envelope. The identification code is for accounting purposes only. Your response will be kept in the strictest confidence.

To assure the success of the study, please answer the instrument at your earliest possible convenience and return it in the stamped return envelope. Your cooperation is appreciated.

Sincerely,

Roger L. Luft

dl
Enclosures

UTAH STATE UNIVERSITY

COLLEGE OF BUSINESS
UMC 35, LOGAN, UTAH 84322
Phone (801) 752-4100 Ext. 7988

DEPARTMENT OF
BUSINESS EDUCATION

April 22, 1977

Dear Employer:

Because you employ part-time high school students who participate in work experience programs, your help is urgently needed. A study is currently underway in Utah to determine the importance of non-technical qualities for entry employment. The information you provide will be used to help develop appropriate teaching materials and instructional methods.

Please take a few moments from your busy schedule to circle the level of importance for each item on the short questionnaire. The importance should be as you feel it's necessity for entry level part-time positions in your occupational area.

You will notice the questionnaire is coded. That is for accounting purposes only. All information will be kept in the strictest confidence. To assure the success of the study, please answer the questionnaire and return it at your earliest possible convenience. Return the questionnaire in the enclosed envelope. Your cooperation is appreciated.

Sincerely,

Roger L. Luft

dl
Enclosures

APPENDIX E

SECOND COVER LETTERS SENT TO RESPONDENTS

UTAH STATE UNIVERSITY

COLLEGE OF BUSINESS
UMC 35, LOGAN, UTAH 84322
Phone (801) 752-4100 Ext. 7988

DEPARTMENT OF
BUSINESS EDUCATION

April 22, 1977

Dear Teacher-Coordinator:

A short time ago a survey instrument was sent to you to determine the importance of non-technical employment qualities for students in Cooperative Work Education programs. To date I have not received the completed instrument.

Another instrument is enclosed along with a stamped return envelope. Please take a few minutes and rate the importance of each item for students seeking entry employment through Cooperative Work Education programs. Return the completed instrument in the stamped return envelope.

Again the instrument has been coded for accounting purposes. The information you provide will be kept confidential. Please complete the instrument as soon as possible and return it in the enclosed envelope.

Sincerely,

Roger L. Luft

dl
Enclosures

UTAH STATE UNIVERSITY

COLLEGE OF BUSINESS
UMC 35, LOGAN, UTAH 84322
Phone (801) 752-4100 Ext. 7988

DEPARTMENT OF
BUSINESS EDUCATION

May 9, 1977

Dear Employer:

A short time ago a questionnaire was sent to you to determine the importance of non-technical employment qualities for students in part-time Cooperative Work Education programs. To date I have not received the completed questionnaire.

Another questionnaire is enclosed along with a stamped return envelope. Please take a few minutes and rate the importance of each item for students seeking beginning part-time employment through Cooperative Work Education programs. Return the completed instrument in the stamped return envelope.

Again the instrument has been coded for accounting purposes. The information you provide will be kept confidential. Please complete the instrument as soon as possible and return it in the enclosed envelope.

Sincerely,

Roger L. Luft

em
Enclosures

UTAH STATE UNIVERSITY

COLLEGE OF BUSINESS
UMC 35, LOGAN, UTAH 84322
Phone (801) 752-4100 Ext. 7988

DEPARTMENT OF
BUSINESS EDUCATION

May 9, 1977

Dear Counselor:

A short time ago a survey instrument was sent to you to determine the importance of non-technical employment qualities for students seeking entry employment through Cooperative Work Education programs. To date I have not received the completed instrument.

Another instrument is enclosed along with a stamped return envelope. Please take a few minutes and rate the importance of each item for students seeking entry employment through Cooperative Work Education programs. Return the completed instrument in the stamped return envelope.

Again the instrument has been coded for accounting purposes. The information you provide will be kept confidential. Please complete the instrument as soon as possible and return it in the enclosed envelope.

Sincerely,

Roger L. Luft

Roger L. Luft

em
Enclosures

APPENDIX F

RESULTS OF ANALYSIS OF VARIANCE

EMPLOYER RESPONSES

APPENDIX F

RESULTS OF ANALYSIS OF VARIANCE EMPLOYER RESPONSES

Source	df	Sum of Squares	Mean Squares	F
ITEM 1				
Between Groups	5	.33	.067	1.05
Within Groups	54	3.40	.063	
Total	59	3.73		
ITEM 2				
Between Groups	5	1.28	.257	2.83*
Within Groups	54	4.90	.091	
Total	59	6.18		
ITEM 3				
Between Groups	5	4.68	.937	2.76*
Within Groups	54	18.30	.339	
Total	59	22.98		
ITEM 4				
Between Groups	5	3.93	.787	.95
Within Groups	54	44.80	.830	
Total	59	48.73		
ITEM 5				
Between Groups	5	2.33	.467	2.37
Within Groups	54	10.60	1.96	
Total	59	12.93		
ITEM 6				
Between Groups	5	3.13	.627	2.01
Within Groups	54	16.80	.311	
Total	59	19.93		
ITEM 7				
Between Groups	5	3.08	.617	1.13
Within Groups	54	29.50	.546	
Total	59	32.58		

APPENDIX F (continued)

Source	df	Sum of Squares	Mean Squares	F
ITEM 8				
Between Groups	5	2.15	.430	.809
Within Groups	54	28.70	.531	
Total	59	30.85		
ITEM 9				
Between Groups	5	.33	.067	.45
Within Groups	54	8.00	.148	
Total	59	8.33		
ITEM 10				
Between Groups	5	21.35	.850	5.02*
Within Groups	54	45.90	4.27	
Total	59	67.25		
ITEM 11				
Between Groups	5	1.48	.297	.436
Within Groups	54	36.70	.680	
Total	59	38.18		
ITEM 12				
Between Groups	5	.88	.177	.984
Within Groups	54	9.70	.180	
Total	59	10.58		
ITEM 13				
Between Groups	5	1.93	.387	1.35
Within Groups	54	15.40	.285	
Total	59	17.33		
ITEM 14				
Between Groups	5	1.68	.337	1.73
Within Groups	54	10.50	1.94	
Total	59	12.18		
ITEM 15				
Between Groups	5	4.28	.857	1.94
Within Groups	54	23.90	.442	
Total	59	28.18		

APPENDIX F (continued

Source	df	Sum of Squares	Mean Squares	F
ITEM 16				
Between Groups	5	.40	.086	.86
Within Groups	54	5.00	.093	
Total	59	5.40		
ITEM 17				
Between Groups	5	1.08	.217	1.05
Within Groups	54	11.10	.206	
Total	59	12.18		
ITEM 18				
Between Groups	5	3.93	.787	1.21
Within Groups	54	35.00	.648	
Total	59	38.93		
ITEM 19				
Between Groups	5	1.88	.377	1.97
Within Groups	54	10.30	.191	
Total	59	12.18		
ITEM 20				
Between Groups	5	.55	.110	.28
Within Groups	54	20.70	.383	
Total	59	21.25		
ITEM 21				
Between Groups	5	.73	.147	1.04
Within Groups	54	7.60	.141	
Total	59	8.33		
ITEM 22				
Between Groups	5	1.73	.347	.65
Within Groups	54	29.00	.537	
Total	59	30.73		
ITEM 23				
Between Groups	5	.65	.137	.30
Within Groups	54	24.30	.450	
Total	59	24.95		

APPENDIX F (continued)

Source	df	Sum of Squares	Mean Squares	F
ITEM 24				
Between Groups	5	2.13	.427	1.57
Within Groups	54	14.60	.270	
Total	59	16.73		
ITEM 25				
Between Groups	5	4.15	.830	1.46
Within Groups	54	30.70	.569	
Total	59	34.85		
ITEM 26				
Between Groups	5	.33	.067	.35
Within Groups	54	10.40	.193	
Total	59	10.73		
ITEM 27				
Between Groups	5	.13	.027	.40
Within Groups	54	3.60	.067	
Total	59	3.73		
ITEM 28				
Between Groups	5	.33	.067	.346
Within Groups	54	10.40	.192	
Total	59	10.73		
ITEM 29				
Between Groups	5	3.08	.617	1.42
Within Groups	54	23.50	.413	
Total	59	26.58		
ITEM 30				
Between Groups	5	4.53	.907	1.57
Within Groups	54	31.20	.578	
Total	59	35.73		
ITEM 31				
Between Groups	5	1.73	.347	1.09
Within Groups	54	17.20	.319	
Total	59	18.93		

* $P < .05$, $F = 2.38$

APPENDIX G

MEAN SCORES OF EMPLOYERS RESPONSES FOR EACH NON-TECHNICAL EMPLOYMENT QUALITY FOR HEALTH, BUSINESS/OFFICE, AGRICULTURE, TRADES/INDUSTRIES, HOME ECONOMICS, AND DISTRIBUTION

APPENDIX G

MEAN SCORES OF EMPLOYERS RESPONSES FOR EACH NON-TECHNICAL EMPLOYMENT QUALITY FOR HEALTH, BUSINESS/OFFICE, AGRICULTURE, TRADES/INDUSTRIES, HOME ECONOMICS, AND DISTRIBUTION

Quality	Health	Business/ Office	Agri- culture	Trades/ Industries	Home Economics	Distri- bution
1. The student arrives for work and appointments on time.	2.90	2.80	2.90	3.00	3.00	3.00
2. The student follows instructions as they are given.	2.60	3.00	2.80	2.00	2.90	3.00
3. The student shows enthusiasm for the tasks to be performed.	2.50	2.10	2.40	2.90	2.70	3.00
4. The student has school records showing acceptable grades.	1.70	1.40	1.60	1.70	1.10	1.90
5. The student is willing to join a union.	.50	0.00	.30	0.00	0.00	0.00
6. The student has positive self-concepts and is self-confident.	2.50	2.10	2.20	2.30	2.30	2.80
7. The student has a personal appearance suitable for the job.	2.40	2.30	2.30	2.10	2.60	2.80

APPENDIX G (continued)

Quality	Health	Business/ Office	Agri- culture	Trades/ Industries	Home Economics	Distri- bution
8. The student has interests in addition to work.	2.20	1.60	1.90	2.00	1.90	2.10
9. The student cooperates with fellow workers.	2.80	2.90	2.70	2.80	2.90	2.90
10. The student must have a driver's license.	.60	1.10	2.20	1.90	1.00	.70
11. The student has attained an educational level equivalent to the job to be performed.	2.20	2.00	2.10	2.20	2.50	2.30
12. The student uses time to the best advantage of the company.	2.70	2.80	3.00	3.00	3.00	3.00
13. The student is physically suitable and in good health for the job.	2.70	2.30	2.80	2.60	2.80	2.80
14. The student shows tact in relationships with others.	2.80	2.60	2.50	2.60	2.80	3.00
15. The student is motivated toward greater achievements.	2.10	2.00	2.40	2.40	2.70	2.70

APPENDIX G (continued)

Quality	Health	Business/ Office	Agri- culture	Trades/ Industries	Home Economics	Distri- bution
16. The student completes work in a thorough manner.	2.80	2.90	2.90	3.00	2.80	3.00
17. The student can take criticism when shown what has been done wrong.	2.70	2.60	2.70	3.00	2.90	2.80
18. The student has school records showing good attendance.	2.10	1.50	1.60	2.20	1.80	2.00
19. The student shows initiative to perform on the job.	2.70	2.40	2.90	2.60	2.80	2.90
20. The student must be at the top of the class academically.	.80	.70	.90	.70	.60	.80
21. The student cooperates with supervisors.	2.70	2.90	2.70	3.00	2.80	2.90
22. The student is of good moral character.	2.10	2.50	2.60	2.40	2.40	2.60
23. The student displays social skills and conduct acceptable to others.	2.39	2.20	2.30	2.50	2.20	2.40

APPENDIX G (continued)

Quality	Health	Business/ Office	Agri- culture	Trades/ Industries	Home Economics	Distri- bution
24. The student can communicate effectively with others.	2.50	2.40	2.40	2.20	2.30	2.80
25. The student will know the advantages, disadvantages, and requirements of union membership.	.80	.30	.70	.10	.20	.60
26. The student shows a sense of responsibility for undertakings.	2.80	2.70	2.90	2.70	2.70	2.80
27. The student is honest with the employer, public, peers, and supervisors.	2.90	2.90	3.00	2.90	2.90	3.00
28. The student is mentally capable to perform job activities.	2.70	2.70	2.80	2.70	2.80	2.90
29. The student has imagination which allows for creative performance.	2.22	1.80	1.90	2.30	1.90	2.40

APPENDIX G (continued)

Quality	Health	Business/ Office	Agri- culture	Trades/ Industries	Home Economics	Distri- bution
30. The student has career and vocational interests in the area in which employment is sought.	2.50	1.70	2.00	1.90	1.50	2.20
31. The student has a pleasant personality.	2.50	2.40	2.50	2.30	2.30	2.80

APPENDIX H

LEAST SIGNIFICANT DIFFERENCE BETWEEN EMPLOYER OCCUPATIONAL GROUPS

APPENDIX H

LEAST SIGNIFICANT DIFFERENCE BETWEEN EMPLOYER OCCUPATIONAL GROUPS

Groups	Group Means	Combination Groups	Difference Between Means	Calculated Least Significant Difference
ITEM 2				
1. Health	2.6	1-2	.4*	.2798
2. Business/ Office	3.0	1-3	.2	
3. Agriculture	2.8	1-4	.4*	
4. Trades/ Industries	3.0	1-5	.3*	
5. Home Economics	2.9	1-6	.4*	
6. Distribution	3.0	2-3	.2	
		2-4	0.0	
		2-5	.1	
		2-6	0.0	
		3-4	.2	
		3-5	.1	
		3-6	.2	
		4-5	.1	
		4-6	0.0	
		5-6	.1	
ITEM 3				
1. Health	2.5	1-2	.4	.522
2. Business/ Office	2.1	1-3	.1	
3. Agriculture	2.4	1-4	.1	
4. Trades/ Industries	2.4	1-5	.2	
5. Home Economics	2.7	1-6	.5	
6. Distribution	3.0	2-3	.3	
		2-4	.3	
		2-5	.6*	
		2-6	.9*	
		3-4	0.0	
		3-5	.3	

APPENDIX H (continued)

Group	Group Means	Combination Groups	Difference Between Means	Calculated Least Significant Difference
		3-6	.6*	
		4-5	.3	
		4-6	.6*	
		5-6	.3	
ITEM 10				
1. Health	.6	1-2	.5	.827
2. Business/ Office	1.1	1-3	1.6*	
3. Agriculture	2.2	1-4	1.3*	
4. Trades/ Industries	1.9	1-5	.4	
5. Home Economics	1.0	1-6	.1	
6. Distribution	.7	2-3	1.1*	
		2-4	.8	
		2-5	.1	
		2-6	.4	
		3-4	.3	
		3-5	1.2*	
		3-6	1.5*	
		4-5	.9*	
		4-6	1.2*	
		5-6	.3	

* $P < .05$, ndf = 59

APPENDIX I

RESULTS OF ANALYSIS OF VARIANCE--TEACHER-COORDINATOR, EMPLOYER, AND COUNSELOR RESPONSES

APPENDIX I

RESULTS OF ANALYSIS OF VARIANCE--TEACHER-COORDINATOR, EMPLOYER, AND COUNSELOR RESPONSES

Source	df	Sum of Squares	Mean Squares	F
ITEM 1				
Between Groups	2	.13	.067	2.20
Within Groups	161	4.71	.027	
Total	163	4.84		
ITEM 2				
Between Groups	2	.25	.125	1.85
Within Groups	161	10.87	.068	
Total	163	11.12		
ITEM 3				
Between Groups	2	.45	.226	.77
Within Groups	161	47.35	.294	
Total	163	47.80		
ITEM 4				
Between Groups	2	3.34	1.676	3.08*
Within Groups	161	87.40	.543	
Total	163	90.74		
ITEM 5				
Between Groups	2	21.75	10.874	27.67*
Within Groups	161	63.28	.393	
Total	163	85.03		
ITEM 6				
Between Groups	2	3.32	1.660	5.19*
Within Groups	161	51.46	.320	
Total	163	54.78		
ITEM 7				
Between Groups	2	3.44	1.721	4.48*
Within Groups	161	61.80	.384	
Total	163	65.24		

APPENDIX I (continued)

Source	df	Sum of Squares	Mean Squares	F
ITEM 8				
Between Groups	2	1.80	.898	1.80
Within Groups	161	80.47	.500	
Total	163	82.27		
ITEM 9				
Between Groups	2	.32	.162	1.31
Within Groups	161	19.99	.124	
Total	163	20.31		
ITEM 10				
Between Groups	2	5.11	2.554	2.78
Within Groups	161	147.84	.918	
Total	163	152.95		
ITEM 11				
Between Groups	2	1.80	.900	1.82
Within Groups	161	79.69	.495	
Total	163	81.49		
ITEM 12				
Between Groups	2	.18	.088	.627
Within Groups	161	22.62	.140	
Total	163	22.80		
ITEM 13				
Between Groups	2	.28	.141	.603
Within Groups	161	37.67	.234	
Total	163	37.95		
ITEM 14				
Between Groups	2	.05	.026	.120
Within Groups	161	34.70	.216	
Total	163	34.75		
ITEM 15				
Between Groups	2	.38	.192	.396
Within Groups	161	78.17	.486	
Total	163	78.55		

APPENDIX I (continued)

Source	df	Sum of Squares	Mean Squares	F
ITEM 16				
Between Groups	2	.03	.014	.143
Within Groups	161	15.21	.094	
Total	163	15.24		
ITEM 17				
Between Groups	2	.16	.080	.311
Within Groups	161	41.57	.258	
Total	163	41.73		
ITEM 18				
Between Groups	2	3.83	1.917	3.13*
Within Groups	161	98.43	.611	
Total	163	102.26		
ITEM 19				
Between Groups	2	.21	.106	.541
Within Groups	161	31.51	.196	
Total	163	31.72		
ITEM 20				
Between Groups	2	1.55	.775	1.83
Within Groups	161	68.18	.424	
Total	163	69.73		
ITEM 21				
Between Groups	2	.08	.039	.208
Within Groups	161	31.06	.193	
Total	163	31.14		
ITEM 22				
Between Groups	2	.14	.071	.131
Within Groups	161	87.80	.542	
Total	163	87.44		
ITEM 23				
Between Groups	2	.87	.434	1.08
Within Groups	161	64.62	.401	
Total	163	65.49		

APPENDIX I (continued)

Source	df	Sum of Squares	Mean Squares	F
ITEM 24				
Between Groups	2	.80	.399	1.39
Within Groups	161	46.18	.287	
Total	163	46.98		
ITEM 25				
Between Groups	2	37.57	18.786	24.71*
Within Groups	161	122.40	.760	
Total	163	159.97		
ITEM 26				
Between Groups	2	.09	.045	.241
Within Groups	161	30.01	.186	
Total	163	30.10		
ITEM 27				
Between Groups	2	.03	.013	.195
Within Groups	161	11.09	.069	
Total	163	11.12		
ITEM 28				
Between Groups	2	.26	.130	.09
Within Groups	161	32.10	.199	
Total	163	32.36		
ITEM 29				
Between Groups	2	2.39	1.194	2.83
Within Groups	161	67.87	.422	
Total	163	70.26		
ITEM 30				
Between Groups	2	1.86	.929	1.65
Within Groups	161	90.40	.562	
Total	163	92.26		
ITEM 31				
Between Groups	2	.53	.265	.777
Within Groups	161	54.91	.341	
Total	163	55.44		

* $P < .05$, $F = 3.06$

APPENDIX J

MEAN SCORES OF RESPONSES FOR NON-TECHNICAL EMPLOYMENT QUALITIES FROM TEACHER-COORDINATORS, EMPLOYERS, AND COUNSELORS

APPENDIX J

MEAN SCORES OF RESPONSES FOR NON-TECHNICAL EMPLOYMENT QUALITIES FROM TEACHER-COORDINATORS, EMPLOYERS, AND COUNSELORS

	Quality	Teacher-Coordinators	Employers	Counselors
1.	The student arrives for work and appointments on time.	3.00	2.93	2.98
2.	The student follows instructions as they are given.	2.93	2.88	2.98
3.	The student shows enthusiasm for the tasks to be performed.	2.62	2.52	2.63
4.	The student has school records showing acceptable grades.	1.82	1.57	1.90
5.	The student is willing to join a union.	.84	.13	.94
6.	The student has positive self-concepts and is self-confident.	2.56	2.37	2.71
7.	The student has a personal appearance suitable for the job.	2.57	2.42	2.67
8.	The student has interests in addition to work.	2.20	1.95	2.06
9.	The student cooperates with fellow workers.	2.85	2.83	2.94
10.	The student must have a driver's license.	1.60	1.25	1.63

APPENDIX J (continued)

Quality	Teacher-Coordinators	Employers	Counselors
11. The student has attained an educational level equivalent to the job to be performed.	2.42	2.22	2.45
12. The student uses time to the best advantage of the company.	2.89	2.92	2.84
13. The student is physically suitable and in good health for the job.	2.76	2.67	2.69
14. The student shows tact in relationships with others.	2.69	2.72	2.67
15. The student is motivated toward greater achievements.	2.35	2.38	2.26
16. The student completes work in a thorough manner.	2.91	2.90	2.88
17. The student can take criticism when shown what has been done wrong.	2.78	2.78	2.71
18. The student has school records showing good attendance.	2.20	1.87	2.16
19. The student shows initiative to perform on the job.	2.80	2.72	2.78
20. The student must be at the top of the class academically.	.65	.75	.90
21. The student cooperates with supervisors.	2.78	2.83	2.81

APPENDIX J (continued)

Quality	Teacher-Coordinators	Employers	Counselors
22. The student is of good moral character.	2.36	2.43	2.41
23. The student displays social skills and conduct acceptable to others.	2.45	2.32	2.29
24. The student can communicate effectively with others.	2.60	2.43	2.51
25. The student will know the advantages, disadvantages, and requirements of union membership	1.47	.45	1.41
26. The student shows a sense of responsibility for undertakings.	2.76	2.77	2.82
27. The student is honest with the employer, public, peers, and supervisors.	2.91	2.93	2.94
28. The student is mentally capable to perform job activities.	2.85	2.77	2.78
29. The student has imagination which allows for creative performance.	2.20	2.08	1.90
30. The student has career and vocational interests in the area in which employment is sought.	2.18	1.93	2.10
31. The student has a pleasant personality.	2.40	2.47	2.33

APPENDIX K

LEAST SIGNIFICANT DIFFERENCE BETWEEN TEACHER-COORDINATORS, EMPLOYERS, AND COUNSELORS

APPENDIX K

LEAST SIGNIFICANT DIFFERENCE BETWEEN TEACHER-COORDINATORS, EMPLOYERS, AND COUNSELORS

Groups	Combination Groups	Difference Between Means	Calculated Least Significant Difference
ITEM 4			
Teacher-Coordinators	1-2	.2514	.2724
Employers	1-3	.0799	.2866
Counselors	2-3	.3323*	.2909
ITEM 5			
Teacher-Coordinators	1-2	.7030*	.2321
Employers	1-3	.1024	.2443
Counselors	2-3	.8054*	.2389
ITEM 6			
Teacher-Coordinators	1-2	.1969	.2090
Employers	1-3	.1506	.2198
Counselors	2-3	.3476*	.2155
ITEM 7			
Teacher-Coordinators	1-2	.3287*	.2290
Employers	1-3	.0720	.2409
Counselors	2-3	.2568*	.2362
ITEM 18			
Teacher-Coordinators	1-2	.3333*	.2891
Employers	1-3	.0367	.3041
Counselors	2-3	.2966	.2981
ITEM 25			
Teacher-Coordinators	1-2	1.0227*	.3222
Employers	1-3	.0646	.3926
Counselors	2-3	.9582*	.3823

*$P < .05$, ndf = 163