PERCEPTIONS OF COMPETENCIES NEEDED FOR A SELECTED UPHOLSTERED FURNITURE OCCUPATION

by

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The purposes of this study were to: (1) determine the competencies which individuals employed as sewers in the manufacture of upholstered furniture in North Carolina perceived as necessary for their occupation; (2) determine the competencies which supervisors perceived as necessary for the occupation of upholstery sewer; (3) determine the extent to which the performers' and their supervisors' perceptions of job competencies were consistent; (4) determine the extent to which the respondents' attitudes toward work were consistent; and (5) determine the extent to which the respondents' perceptions were related to five selected dimensions--length of employment, age, sex, educational level, and method of payment. It was hypothesized that there would be no significant relationships between respondents' perceptions of competencies needed for the occupation of upholstery sewer when compared by occupation, length of employment, age, sex, educational level, and method of payment. It was also hypothesized that there would be no significant relationship between attitudes toward work as perceived by the sewers and supervisors.

There were 176 sewers and supervisors, employed in seven upholstered furniture firms in North Carolina, who participated in the study. The firms were randomly selected from those belonging to the Southern Furniture Manufacturers Association (SFMA). Only firms that had personnel directors were chosen.

An interview schedule was developed to determine competencies that performers and their supervisors perceived to be necessary at the entry

level for the occupation of upholstery sewer. The interview schedule was pretested by performers and their supervisors in one manufacturing firm and suggested changes were incorporated. Chi square analyses were used to determine significant relationships at $p = .05$.

The hypothesis that there would be no significant relationships between subjects' responses to competencies needed for the occupation of upholstery sewer when compared by selected variables was rejected. Significant relationships were present for responses to sixteen of the competency statements when compared by selected variables. Data were not analyzed for the hypothesis that there were no significant relationships between respondents' attitudes toward work when compared by selected variables. Responses to attitude statements were not sensitive indicators of the respondents' beliefs.

Findings of the study indicated that sewers' and supervisors' responses were in agreement for eight of the competency statements. Sewers and supervisors disagreed on statements that related to care and maintenance of the machines, certain specific mechanized operations, instructions involving variations from standard procedures, and coordination of the hands and feet.

Implications from this study may provide a frame of reference for curriculum planning and further research.

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DEDICATION

This dissertation is dedicated to my husband, Ron; my children, Lynne and Ron, Jr.; my mother, Mrs. Troy H. Keller; my sister, Mozelle K. Williams; and my advisor and friend, Dr. Mildred Johnson.

TABLE OF CONTENTS

LIST OF TABLES

Table Page

CHAPTER I

OVERVIEW OF THE STUDY

Importance of the Study

Even though man has always had to cope with change, American educators have had difficulty in coping with the new surge in technology. Traditional means of providing an education for the public have proved to be wasteful of talent, time-consuming, and lacking in the production of trained manpower to meet the needs of our existing society. In the past, a useful occupation learned in youth could be counted on to provide a livelihood for the remainder of an individual's work span. The accelerating impact of technology not only causes known jobs to disappear, but results in the emergency of previously unknown jobs. Modern technology has eliminated some unskilled and low-skilled occupations. However, it has created occupations which require the use of more technical knowledge and training than in the past.

Vocational education has traditionally emphasized preparation for skilled and technical occupations. In the past there has been a tendency for much of the pre-employment education to be terminal. It is now recognized that no form of education can become terminal, but must be open ended and continuous. Future programs in vocational education must be flexible to satisfy more diverse needs for a more diverse population.

Writers have suggested that vocational education may be the answer to making American education relevant to the changing needs of students and society (Evan, 1970; Johnson, 1969; and Marland, 1971). It is the

process of preparing people for work--integrating the academic with the practical--learning by doing (Johnson, 1969).

In vocational home economics education, occupations have been analyzed, clustered, and needed competencies identified in the areas of child care (Ruehr, 1970), food services (Rossi, 1966), clothing services (Cozine, 1968), home management services (Beaver, 1967; Carpenter, 1969; and Shipley, 1967), and home furnishings (Johnson and Schenck, 1973; and Hughes, 1974). In the Johnson and Schenck study, one finding indicated that there are a great variety of jobs in the home furnishings industry. Explicit specifications for each occupation within the industry should be clearly defined. In the Hughes study, competencies were identified for the occupations of assistant interior designer, upholsterer, floor mechanic, and drapery maker.

The home furnishings industry in North Carolina ranks first in the nation. Since little research has been conducted to determine competencies needed for specific occupations in the home furnishings industry, it was believed that a study to determine competencies considered necessary for one such occupation, furniture upholstery sewing, could be beneficial. Few studies have involved both the performer and the supervisor in identifying competencies needed for specific occupations and few studies have considered the following dimensions: years of employment, age, sex, educational level, and method of payment.

One of the major goals of vocational education is to meet the needs of the individual student in relation to the occupational outlook of the community in which he lives. Much upholstered furniture is made in North Carolina. Therefore, it was believed that a study to determine the

competencies needed for the occupation of upholstery sewer as perceived by the workers themselves could be of value to vocational home economics teachers, teacher educators, and state personnel who are involved in curriculum planning.

Problem and Purposes of the Study

This study was designed to answer two questions. Is there a relationship between employment status and the perception of competencies necessary for the occupation of upholstery sewer? How do participants' perceptions of competencies needed relate to length of employment, age, sex, educational level, and method of payment?

The purposes of the study were to: (1) determine the competencies which individuals employed as sewers in the manufacture of upholstered furniture in North Carolina perceived as necessary for their occupation; (2) determine the competencies which supervisors of sewers perceived as necessary for the occupation of upholstery sewer; (3) determine the extent to which the performers' and their supervisors' perceptions of job competencies were consistent; (4) determine the extent to which the respondents' attitudes toward work were consistent; and (5) determine the extent to which the respondents' perceptions were related to five selected dimensions--length of employment, age, sex, educational level, and method of payment.

Hypotheses of the Study

It was hypothesized that:

1. There are no significant relationships between the competencies needed for the occupation of upholstery sewer as perceived by the performers themselves and by their supervisors.
2. There are no significant relationships between the respondents' perceptions of competencies when compared by length of employment, age, sex, educational level, and method of payment.
3. There are no significant relationships between attitudes toward work as perceived by the performers and their supervisors.
4. There are no significant relationships between the perceptions of the attitudes of the respondents toward work when compared by length of employment, age, sex, education level, and method of payment.

Study Design

An interview schedule was developed to ascertain the following data needed for the study: personal information, including length of employment, age, sex, education level, method of payment, and occupation; a checklist of tasks for the occupation of upholstery sewer; and a list of attitudes toward work (Appendix A). The instrument was pretested by upholstery sewers and their supervisors in one manufacturing firm and suggested changes were incorporated.

Seven upholstered furniture manufacturing firms in North Carolina were randomly selected for participation in the study by the Director of Services of the Southern Furniture Manufacturers Association. These firms were selected from those having personnel directors in order to facilitate the data collection. The interview schedule was distributed to all upholstery sewers and their supervisors in the furniture firms. Data were collected through the use of personal interviews. A total of 149 upholstery sewers and twenty-six supervisors participated in the study.

The data were coded for statistical computations. Chi square analyses were used to determine significant relationships between responses of the furniture upholstery sewers and their supervisors to competency statements and selected variables.

Definition of Terms

Terms used in relation to this study were as follows: An upholstery sewer is an individual who is employed for the explicit purpose of sewing coverings for upholstered furniture through the use of a commercial sewing machine. A supervisor is one who supervises and coordinates activities of workers engaged in sewing fabric used in upholstered furniture. The performer is the upholstery sewer. Piece work is a term used in the furniture industry to indicate that the individual is paid wages according to the number of units of production. Hour work is a term used in occupations to indicate that the performer is paid a set amount per hour for his work. A competency is a specific skill needed to perform a task or tasks.

Limitations of the Study

Four limitations were stated in relation to the study. These were:

1. The study was limited to firms that were members of the Southern Furniture Manufacturers Association.
2. It was limited to performers in the occupation of upholstery sewer in the furniture manufacturing industry and their supervisors.
3. It was limited to those performers and their supervisors who were employed by manufacturers of upholstered furniture in North Carolina that had personnel directors.

4. Length of the interview schedule was limited in accordance with requirements of the Southern Furniture Manufacturers Association.

CHAPTER II

REVIEW OF LITERATURE

Current and predicted changes in our society have indicated a growing need for vocational education programs at the secondary level. Societal changes reflected in changing job opportunities and in the labor market indicate a growing need for a wide range of vocational programs at the secondary level. Federal legislation has also provided the impetus for occupational programs that prepare people for gainful employment. The number of occupational home economics programs in the high schools of North Carolina has greatly increased during the past five years. These programs provide training in a variety of home economics related occupations. The review of literature is divided into the following categories: the role of vocational education, cooperative education, and the job clustering concept of curriculum planning.

Role of Vocational Education

Much Federal legislation has been enacted which has promoted and supported vocational education. However, the Vocational Acts of 1963 and 1968 placed an increased emphasis on the importance of vocational education in the total school program. The Vocational Education Act of 1963 provided for the maintenance, extension, and improvement of existing vocational programs and provided part-time employment for youths who need the earnings from this employment to continue their vocational training (Mason and Haines, 1972). The Vocational Education Amendments of 1968 reinforced the

purpose of the 1963 Act and provided categorical funding for specific programs. Part G of the 1968 Amendments provided specific funding for cooperative vocational programs designed to prepare students for employment through cooperative work-study arrangements.

Various writers have discussed the importance of vocational education in the public schools. Evans (1971) suggested that the three basic objectives in any public school vocational education curriculum should be: (1) meeting the manpower needs of society; (2) increasing the options available to each student; and (3) serving as a motivating force to enhance all types of learning.

Shilt (1970) indicated six reasons for the changing image of vocational-technical education. These changes included: (1) congressional support, (2) a general awakening on the part of superintendents and principals which recognized the potential of vocational education in the education process, (3) improved research, (4) the development of new programs to meet the needs of individuals, (5) improved relations with the area of guidance and counseling, and (6) vocational education teachers becoming more alert to newer teaching devices and techniques.

It has been suggested that vocational education is the answer to making American education relevant to the needs of all students (Evan, 1970; and Johnson, 1969). According to Evan, vocational education must serve two functions: "(1) to orient the student broadly to the many opportunities in life, and (2) to give specific skill training " (p. 14).

Educators in New York State recognized the changing needs of the economy, the composition of the current work force, and the inseparable and integral role of occupational education in the total educational

program (University of State of New York, 1967). As a result of interest shared by business, industry, and government, a study was designed to (1) determine needed additional occupations training, (2) identify occupational programs according to the needs of employers, (3) determine student and parental interest in types of training and work situations, (4) measure adequacy of present facilities, and (5) judge the extent of community support for increasing occupational programs. Findings of the study confirmed the need for more trained personnel to maintain and enhance society. Participants in the survey indicated that past specialized high school education had been inadequate in preparing people to enter the job market. It was suggested that cooperative programs, in conjunction with public schools and on-the-job training, could promote occupational training. The majority of the respondents indicated that the community and local business and industry would support public occupational education.

A study was designed to obtain views of 324 administrators at the post-secondary and secondary school levels toward occupational education. Two of the major findings were that (1) occupational education is necessary and (2) major emphasis should be placed on skill development (Clawson, Johnson, and Schenck, 1973).

School programs were determined to be successful when they effectively satisfied each individual's educational needs (Burt and Lessinger, 1970). It was indicated that through cooperative efforts between all sectors of the community, government, and private enterprise, the individual's educational needs could be successfully met. Through these combined efforts, the school system would provide (1) a more comprehensive program

of instruction; (2) provision for quality assurance of its instructional process and results; (3) the development and testing of new programs as they are needed; and (4) location and use of resources of the community, both material and human, in support of each student's learning needs.

As the result of a ten year study conducted by the Home Economics Division of the North Carolina State Department of Public Instruction, it was suggested that occupational training programs in home economics may be the best answer for meeting a variety of the students' unmet needs. These programs help students to:

1. Develop salable skills and sound attitudes toward work for entering the labor market directly from high school.
2. Develop salable skills to help finance continuing education.
3. Satisfy the interest in home economics occupational skills expressed by many students--both boys and girls--who have the necessary aptitudes.
4. Contribute to the employability of the early-married student who is most likely to have to combine homemaking and wage earning.
5. Contribute to the employability and holding power of potential drop-outs--those students who are underachievers or have special needs (1970, pp. 52-53).

Simpson (1964) expressed concern over the number of students who do not complete high school. It was suggested that vocational education for employment might motivate potential drop-outs as fewer jobs are available for unskilled workers.

Cooperative Education

Cooperative education is a program of vocational education that is developed jointly between the public school and business or industry. Its primary objective is the development of student occupational competency.

Cooperative vocational education has been defined as an educational program which combines supervised "on-the-job training in the occupational area of the student's career interest with in-school instruction directly related to his on-the-job training and to his career interest" (North Carolina State Board of Education, 1972, p. 2). It is a realistic approach to career preparation rather than just a work program. Since the program is centered on the student trainee and since the cooperative student is paid wages as part-time employee, the program is often an incentive to students, particularly from low income families, to complete their education (Huffman, 1969).

Sredl (1970) indicated the 1968 Amendments focused on one of the major inadequacies of educational programs, the absence of a logical introduction of pupils to the system which provides man with his economic goods and services--the world of work. He viewed this federal legislation as a bridge which could eliminate the gap between the world of work and young people. Part G provided the specific funding for the cooperative vocational programs.

The Advisory Council on Vocational Education was established to evaluate the success of the Vocational Education Act of 1963. This Council indicated that, in terms of students placed in occupations for which they were trained, the cooperative program held the best record of all vocational programs (Evans, in Law, 1971).

Cooperative vocational education may assist in adapting education to cope with rapid changes that are occurring in occupations. Current and future employment opportunities, as well as needs of society and students,

must be met. Through the coordination of the various work related training programs, manpower needs may be met more efficiently.

According to the policies and standards for cooperative vocational education as established by the Division of Occupational Education in North Carolina (1971), the programs must be planned and coordinated to meet the manpower needs of the community as well as the needs of the student. The 1968 Amendment strongly encouraged cooperative planning among institutions of public education and other organizations or agencies to facilitate preparation of the individual for entering the world of work.

The North Carolina State Department of Public Instruction (1972) listed the following significant advantages of the cooperative program:

1. Research supports the fact that job placement is higher for students who have earned while learning a skill.

2. The selected training station affords the student a realistic setting to recognize advancement opportunities and to apply knowledge of theory and technology from class experiences.

3. The related class instruction provides opportunities for students to become aware of the home economics occupations being performed by each class participant.

4. Classroom instruction does not demand a highly specialized laboratory.

5. Demonstration laboratory experiences cost less than daily group laboratory experiences (p. 75).

Some of the advantages of the cooperative program identified by Evans (in Law, 1971) were: (1) the ability of the program to adapt to changes in the labor market; (2) lower capital investment in space and equipment; (3) the provision of a real work situation for learning rather than a simulated one; (4) students who perform effectively in on-the-job training are more apt to remain in employment after completing the program;

and (5) cooperative education can be offered in a specified field for a small group when other types of vocational education require a given number of students before the program can be operated economically.

Some disadvantages of cooperative programs were also identified (Evans, 1971). The programs are not always adaptable to a community. The community may either be too small, have a narrow range of available training stations, and/or have a declining population or declining occupations. Also, even minor recessions effect cooperative programs because the student-employee is often the first to be discharged.

Job Clustering Approach to Curriculum Development

A number of studies have been conducted in home economics using the job clustering technique. Writers and researchers have supported the concept that vocational curricula should not be specific to a single job but should be designed to prepare students to enter any one of a number of jobs in a job cluster.

Maley (1967) stated that the cluster concept of vocational education was a descriptive term applied to a form of education directed toward the preparation of individuals for entrance into a spectrum of occupations. Cunningham (1969) defined job clustering as "the establishment of job families, or groups, with similar educational requirements" (p. 17). This concept was based on the assumption that students would be better able to adapt to changing occupational demands if they had been exposed to a curriculum developed for a cluster of jobs, as opposed to training for a specific job.

Sjogren (1969) stated that evidence supports the job cluster approach to curriculum construction in vocational education. The fact that jobs change rapidly and become obsolete, the instability of career or job choice commitments of secondary school youth, and the fact that meaningful job clusters have been identified in some areas for curriculum building all lend additional support to the clustering concept.

Clawson (1971) suggested that the first step in curriculum development in vocational education was an occupational analysis to determine the knowledge required of a successful worker. This included the abilities he must possess and the behavioral characteristics needed. After a compilation of suitable questions is completed using the Dictionary of Occupational Titles, books, periodicals, consultation with federal and state agencies, and professional societies, interviews should be arranged with employers and employees to check accuracy of information and to identify additional tasks, to find out how they are performed, and to determine specific skills necessary to perform the task.

Ruehr (1970) conducted a study to identify food production and child care competencies needed to perform tasks in homemaker/home health aide occupations and to identify clusters among the competencies judged by directors of health agencies. A list of 182 competencies for the tasks previously identified by Shipley were included. Directors rated the competencies as either "not needed", "sometimes needed", or "usually needed". A total of sixty-six competencies met the "needed" criteria in all three types of programs.

Job clustering was evaluated by Beaver (1967), Shipley (1967) and Carpenter (1969) in separate studies. Under the assumption that students

will have a wider range of job opportunities if they acquire the knowledge and skills required for a cluster of jobs rather than for one specific job, researchers identified clusters of jobs and competencies needed.

Beaver (1967) clustered occupations which required common home economics training and identified competencies needed for each cluster of occupations. From a statewide random sample of employers, data were collected to identify job titles and characteristics of qualifications needed by workers for each. If employers indicated that a competency was needed, the level of awareness, performance, or technical understanding was checked as to whether it was "desirable" or "essential".

Through the use of a questionnaire and a checklist, Shipley (1967) identified tasks related to the housing cluster of occupations. A random selection of twenty-nine homemaker/home health aides, twenty-six motel/hotel aides and thirty-two nursing home housekeeping aides was made from the list of nursing homes, motels and hotels, and homemaker service centers in six Iowa communities. Each task from the checklist was inter-correlated with every other task and pooled within the total sample. A frequency count of the responses to the personal data section of the questionnaire was also made. This count was examined to determine the general characteristics of the sample. The tasks which were common and unique were identified and mean scores for each task within an occupation were examined. A correlation matrix provided data to determine clusters of related tasks within the three occupations.

Following this study, Carpenter (1969) identified competencies needed for those clusters of tasks found most often in home services related occupations. Information was obtained from the total population

of homemaker/health aide directors in six Iowa communities (28), a random sample of twenty-five directors of hotel/motel aides, and a random sample of twenty-seven nursing home housekeeping aides. Fifty-six competencies were identified as common to the home related clusters.

Cozine (1968) conducted a study to determine types of competencies and personal qualities desired by employers for clothing services occupations. Conferences were held with local administrators, counselors, and the state home economics staff to develop a tentative curriculum based on the obtained data. Recommendations for initiating and developing gainful employment programs were based on the subjective judgments of the research team and suggestions from other home economics teachers.

A study conducted by Rossi (1966) was designed to investigate the possibilities of clustering occupations in the food services industry in Santa Monica, California. Through the use of an open-ended questionnaire and the interview technique, data were collected from a sample of managers of restaurants, coffee shops, drive-ins, and dietetic departments in convalescent homes and hospitals. Findings of the study identified entry level skills needed for a cluster of occupations within the food services industry.

A study was conducted by staff in the Department of Home Economics Education at Iowa State University to cluster related tasks in the area of home furnishings (Iowa, 1974). Tasks were identified for the occupations of assistant interior designer, floor mechanic, upholsterer, and drapery maker. Based on 607 responses to the task checklists, a within group correlation matrix was computed for each of the four occupations. These four matrices were then pooled to determine clusters of related

tasks. These final task clusters were to be used by educators for curriculum development.

The identification of competencies and performance standards associated with women's occupations in the textile and furniture industries was the purpose of research conducted through the Home Economics Center for Research at the University of North Carolina at Greensboro (Johnson and Schenck, 1973). Tasks required of women in the wood furniture, upholstered furniture, and drapery-bedspread industries for which girls may be trained were identified. One implication of the study was that occupational home economics courses could prepare students for home furnishing occupations that required specific skills. Since there is a great variety of jobs in the home furnishings industry, explicit specifications are needed for job clusters.

Summary

The importance of and support for vocational education has been discussed by various writers in the field. Federal legislation has focused attention on the inadequacies of some of the public educational programs. Part G of the 1968 Amendments provided impetus for a specific vocational program, cooperative education, which has been viewed as a bridge to eliminate the gap between the world of work and young people.

Writers and researchers have supported the concept that curricula for cooperative vocational programs should be designed to prepare students to enter any one of a number of jobs. The cluster concept of vocational education is based on the premise that students could adapt to changing occupational demands if training was received in a cluster of jobs, as

opposed to training for a specific job. One aspect of the cluster approach to curriculum construction is the identification of competencies needed for the occupations within a specific job cluster.

In the area of curriculum development, some research has been conducted in job clustering in the home furnishings occupations area and in identifying competencies in this area. However, since the jobs in this field are so varied, identification of competencies for specific occupations appears necessary.

CHAPTER III

PROCEDURE

This study was designed to determine the competencies that upholstery sewers and their supervisors perceived as necessary for the occupation of upholstery sewer. It was limited to performers and their supervisors who were employed in manufacturing firms having a personnel director. Those furniture manufacturing firms without a personnel director were excluded from the study because of the difficulty in obtaining data.

The Instrument

An interview schedule was developed to determine competencies that the performers and their supervisors perceived to be necessary at the entry level for the occupation of upholstery sewer. The instrument listed competencies that referred to selected tasks or skills commonly identified with the occupation of upholstery sewer. Competency statements included in the interview schedule were selected from available references and resource materials, furniture manufacturers, personnel directors, and officials in the Southern Furniture Manufacturers Association. The best printed sources were the Dictionary of Occupational Titles (DOT), and previously conducted studies in home furnishings related occupations.

The interview schedule was pretested by performers and their supervisors in one upholstered furniture manufacturing firm. It was also reviewed by selected personnel directors and officials in the Southern

Furniture Manufacturers Association. The length of the interview schedule was reduced to one page at the request of the Director of Services of the Southern Furniture Manufacturers Association. Suggested changes were incorporated to facilitate understanding and accurate completion. Respondents who participated in the pretest were not included in the major study.

The interview schedule included a list of twenty-four statements which were divided into two categories: (1) use of the commercial sewing machine and (2) understandings and skills needed for the occupation of upholstery sewer. Competency statements one through eleven were related to use of the commercial sewing machine. Statements twelve through twenty-four referred to understandings and skills. For each competency statement the respondent could check one of the following responses according to frequency of performance: "several times a day", "once a day", "several times a week", "once a week", or "less than once a week". Attitudes toward work were checked according to the degree of their importance. Both the performers and their supervisors checked these characteristics. The respondents were instructed to check the response that best represented their own beliefs or performance.

A personal data section was included to secure information related to length of employment, age, sex, educational level, method of payment, and occupation. The sewers and supervisors were to check the appropriate response or to supply the desired information.

The population for this study included individuals who were employed in the occupation of furniture upholstery sewer in North Carolina and their supervisors. Upholstered furniture manufacturing firms were randomly

selected by the Director of Services of the Southern Furniture Manufacturers Association for participation in the study. Only those firms with a personnel director were used in order to facilitate data collection. All upholstery sewers and their supervisors in each of the selected manufacturing firms were included in the sample because personnel directors did not wish to exclude any individual. Individuals who participated in the study were not identified. All information received remained confidential.

Collection of Data

Initial contact with the employer or personnel director was made by the Director of Services for the Southern Furniture Manufacturers Association who explained the purposes of the study. After consent for participation in the study was obtained, personnel directors in each of the participating firms were contacted by telephone by the researcher and appointments were confirmed. Interviews with employees and supervisors were scheduled by the personnel director in each of the seven participating firms. A total of 176 participants were interviewed.

Analysis of Data

Data were coded for statistical computation. Chi square analyses were used to determine significant relationships between responses of the participants to competency statements and the variables occupation, length of employment, age, sex, educational level, and method of payment.

CHAPTER IV

ANALYSIS OF DATA

The major objectives of this study were: (1) to determine the competencies which individuals employed as sewers in the manufacture of upholstered furniture in North Carolina perceived as necessary for their occupation; (2) to determine the competencies which supervisors of sewers perceived as necessary for the occupation of upholstery sewer; (3) to determine the extent to which the performers' and their supervisors' perceptions of job competencies were consistent; (4) to determine the extent to which the respondents' attitudes toward work were consistent; and (5) to determine the extent to which the performers' and supervisors' perceptions were related to five selected dimensions--length of employment, age, sex, educational level, and method of payment.

Competencies needed for the occupation of upholstery sewer as perceived by the respondents were obtained through the use of an interview schedule (Appendix A). A personal data section was used to secure information relating to occupation, length of employment, age, sex, educational level, and method of payment.

The data obtained were analyzed and are presented as follows:

1. A description of the upholstery sewers and their supervisors who participated in this study in terms of length of employment, age, sex, educational level, and method of payment.

2. The relationship of the respondents' perceptions of competencies needed for the occupation of upholstery sewer when compared by occupation, length of employment, age, sex, educational level, and method of payment.
3. A discussion of the respondents' perceptions of selected attitudes toward work.

Description of Respondents

The population for this study included furniture upholstery sewers and their supervisors who were employed in furniture manufacturing firms in North Carolina having personnel directors. All upholstery sewers and their supervisors who were employed in each of the seven randomly selected manufacturing firms were included in the study.

One hundred and forty-nine of the respondents (84.7 per cent) were upholstery sewers (Table 1). Twenty-six supervisors (14.8 per cent) participated in the study.

Fifty-five of the respondents (31.3 per cent) in the study had been employed in the indicated occupation from one to five years. Forty respondents (22.7 per cent) had been working from six to ten years; thirty-four respondents (19.3 per cent) had been employed from eleven to fifteen years; and nineteen respondents (10.8 per cent) checked both the categories "from sixteen to twenty years" and "over twenty years". Only nine respondents (5.1 per cent) had been employed in their occupation less than one year.

Table 1

NUMBER AND PERCENTAGE OF RESPONSES
TO SELECTED VARIABLES

Variable	Number of Respondents*	Percentage
Occupation		
Sewer	149	84.7
Supervisor	26	14.8
Length of Employment		
Less than one year	9	5.1
1 - 5 years	55	31.3
6 - 10 years	40	22.7
11 - 15 years	34	19.3
16 - 20 years	19	10.8
Over 20 years	19	10.8
Age		
Less than 20 years	5	2.8
21 - 30 years	32	18.2
31 - 40 years	45	25.6
41 - 50 years	39	22.2
51 - 60 years	42	23.9
Over 60 years	7	4.0
Sex		
Male	18	10.2
Female	152	86.4
Educational Level		
Less than high school	81	46.0
High school	82	46.6
High school - plus	12	6.8
Method of Payment		
Piece work	87	49.4
Hourly wage	53	30.1
Sometimes both	16	9.1
Salary	19	10.6

*All respondents did not respond to every question.

The respondents were almost evenly distributed among the ten year age brackets between ages thirty-one to sixty. Only seven (4.0 per cent) were over sixty years of age, while only five respondents (2.8 per cent) were less than twenty years of age.

A majority of the respondents (86.4 per cent) were female. Only eighteen respondents (10.2 per cent) were male.

The respondents were almost equally divided between having less than a high school education (46.0 per cent), and having completed high school (46.6 per cent). Only twelve respondents (6.8 per cent) had received more than a high school education.

Eighty-seven of the respondents (49.4 per cent) were paid on the basis of piece work. Fifty-three respondents (30.1 per cent) were paid by the hour. Nineteen respondents (10.6 per cent) were salaried, while only sixteen respondents (9.1 per cent) sometimes received payment based on either piece work or by the hour.

Statistical Analysis of Interview Schedule Responses

Chi square analyses were used to determine whether there was a significant relationship between the responses of the participants to each of the twenty-four competency statements on the interview schedule and the variables occupation, length of employment, age, educational level, and method of payment. The variable pertaining to the sex of the respondents was not analyzed since the overwhelming majority of the participants (86.4 per cent) were women. The number of males who responded was so small as to make statistical analyses inappropriate.

Of the 120 analyses performed, thirty were significant at the .05 level of significance. A summary of the significant relationships is shown in Table 2. In a preliminary analysis, it was discovered that many of the cells of the contingency tables failed to have adequate frequencies for statistical analysis. Therefore, the five categories used to determine the frequency with which each of the twenty-four tasks were performed were collapsed into the following three categories: "several times a day", "and once a day" became "at least once a day"; "several times a week" and "once a week" became "weekly, but not daily"; and "less than once a week" remained the same.

In the second analysis, it was determined that some cells of the contingency tables still failed to have adequate frequencies for statistical analysis. Therefore, the categories were further collapsed into two categories. These were "at least once a day" and "less than once a day".

Relationship of Responses to Competency Statements and Occupation

Significant relationships occurred between responses of the participants to nine of the twenty-four competency statements and the occupation of the respondents at the $p < .05$ level. A significant relationship was present between responses to competency statement 1, "performs minor adjustments on the sewing machine", and the occupation of the respondents (Table 3). Fifty-four of the sewers (36.2 per cent) checked that minor repairs were made on the sewing machines less than once a week while only one supervisor (3.8 per cent) checked this category. Twelve supervisors (46.2 per cent) indicated that this task would be done at least once a day.

Table 2

SUMMARY OF VARIABLE RELATIONSHIPS SIGNIFICANT AT THE .05 LEVEL

Competency Statements	Variables				
	Occupation	Length of Employment	Age	Educational Level	Method of Payment
1. Performs minor adjustments on the sewing machine.	*			*	
2. Performs major adjustments on the sewing machine to prepare it to perform its function or restore its proper functioning if it breaks down.					
3. Threads the machine.					
4. Changes the bobbin.					*
5. Cleans and oils the machine.	*			*	*
6. Starts, controls, and stops the machine.					
7. Stitches seam widths accurately.					
8. Determines the correct speed of the machine					
9. Inserts or places materials correctly into the border stitching machine.	*			*	*

Table 2. SUMMARY OF VARIABLE RELATIONSHIPS SIGNIFICANT AT THE .05 LEVEL (continued)

Competency Statements	Variables				
	Occupation	Length of Employment	Age	Educational Level	Method of Payment
10. Adjusts materials or controls of the sewing machine when necessary.					
11. Detects and corrects defects.			*		*
12. Knows the sewing sequence for the upholstery covering.	*	*		*	
13. Determines when to change the color of sewing thread.		*			
14. Selects supplies such as tape, thread and cord according to specifications.					*
15. Sews pull bands into seams of upholstered parts.	*				
16. Sews law labels into the upholstery parts					*
17. Sews welts into upholstery parts.					*
18. Makes pleats for a skirt from materials previously cut.	*			*	*
19. Inserts zippers into cushion borders.	*	*		*	*

Table 2. SUMMARY OF VARIABLE RELATIONSHIPS SIGNIFICANT AT THE .05 LEVEL (continued)

Competency Statements	Variables				
	Occupation	Length of Employment	Age	Educational Level	Method of Payment
20. Sews cushions	*				*
21. Carries out one or two step instruction.					
22. Carries out detailed instruction.					
23. Carries out instructions involving variation from standard situations.	*				
24. Coordinates hand and foot with each other with some degree of skill.		*			

Table 3

CONTINGENCY TABLE FOR RESPONSES TO COMPETENCY STATEMENT ONE AND OCCUPATION

Occupation	1. Performs Minor Adjustments on the Sewing Machine			
	at least once a day	weekly, but not daily	less than once a week	Total
Sewer	46 30.9[a]	49 32.9	54 36.2	149 85.1
Supervisor	12 46.2	13 50.0	1 3.8	26 14.9
Total	58 33.1	62 35.4	55 31.4	175 100.0

Chi square = 10.781 2 d.f. p = 0.0046

[a]percentage

A significant relationship was present between responses of the participants to competency statement five, "cleans and oils the machine", and occupation (Table 4). One hundred and seventeen sewers (78.5 per cent) indicated that this task was performed at least once a day while only thirteen supervisors (50.0 per cent) checked this category.

Significant relationships occurred between responses of the participants to five competency statements which were directly related to specific construction operations and occupation of the respondents (Appendix B). These statements were as follows: (9) "inserts or places materials correctly into the border stitching machine"; (15) "sews pull bands into seams of upholstery parts"; (19) "makes pleats for a skirt from materials previously cut"; (19) "inserts zippers into cushion borders";

Table 4

CONTINGENCY TABLE FOR RESPONSES TO COMPETENCY STATEMENT FIVE AND OCCUPATION

Occupation	5. Cleans and Oils the Machine			
	at least once a day	weekly, but not daily	less than once a week	Total
Sewer	117 78.5[a]	25 16.8	7 4.7	149 85.1
Supervisor	13 50.0	6 23.1	7 26.9	26 14.9
Total	130 74.3	31 17.7	14 8.0	175 100.0

Chi square = 16.588 2 d.f. p = 0.0002

[a]percentage

and (20) "sews cushions". Differences were found to exist among the sewers' responses.

A significant relationship was present between responses of the participants to competency statement twelve, "knows the sewing sequence for the upholstery covering" and occupation (Table 5). Twenty-five supervisors (36.2 per cent) indicated that knowledge of the sewing sequence would be used at least once a day, while 109 of the sewers (74.1 per cent) indicated that the task was performed at least once a day.

A significant relationship was present between responses of the participants to competency statement twenty-three, "carries out instructions involving variation from standard situations" and the occupation of the respondents (Table 6). Sixteen supervisors (61.5 per cent) and

Table 5

CONTINGENCY TABLE FOR RESPONSES TO COMPETENCY STATEMENT TWELVE AND OCCUPATION

Occupation	12. Knows the Sewing Sequence for the Upholstery Covering		
	at least once a day	less than once a day	Total
Sewer	109 74.1[a]	38 25.9	147 85.0
Supervisor	25 96.2	1 3.8	26 15.0
Total	134 77.5	39 22.5	173 100.0

Chi square = 4.930 1 d.f. p = 0.0264

[a]percentage

Table 6

CONTINGENCY TABLE FOR RESPONSES TO COMPETENCY STATEMENT TWENTY-THREE AND OCCUPATION

Occupation	23. Carries Out Instructions Involving Variation from Standard Situations			
	at least once a day	weekly, but not daily	less than once a week	Total
Sewer	79 53.0[a]	27 18.1	43 28.9	149 85.1
Supervisor	16 61.5	9 34.6	1 3.8	26 14.9
Total	95 54.3	36 20.6	44 25.1	175 100.0

Chi square = 8.732 2 d.f. p = 0.0127

[a]percentage

seventy-nine sewers (53.0 per cent) indicated that this task would be performed at least once a day. However, 34.6 per cent of the supervisors checked the column "weekly, but not daily", while 28.9 per cent of the sewers checked the "less than once a week" column.

Relationship of Responses to Competency Statements and Selected Variables

Length of Employment

Responses of the sewers and their supervisors were compared according to the number of years that the respondents had been employed in their respective occupations. Of the twenty-four competency statements in the interview schedule, only four statements had responses that were significant at $p < .05$ when compared by length of employment. Since a limited number of sewers performed the task of inserting zippers in cushion borders, the table for this competency statement can be found in Appendix C.

A significant relationship was found to exist between responses for competency statement twelve, "knows the sewing sequence for the upholstery covering", and number of years employed (Table 7). Of the respondents who had been employed sixteen to twenty years, eighteen (94.7 per cent) indicated that this competency would be performed at least once a day. Seventeen respondents (89.5 per cent) who had been employed over twenty years checked the same column. Respondents who had been employed less than one year divided their responses between "at least once a day" and "less than once a day".

A significant relationship was present between responses to competency statement thirteen, "determines when to change the color of sewing thread", and length of employment (Table 8). Eighteen respondents

Table 7

CONTINGENCY TABLE FOR RESPONSES TO COMPETENCY STATEMENT TWELVE AND LENGTH OF EMPLOYMENT

Length of Employment	12. Knows the Sewing Sequence for the Upholstery Covering		
	at least once a day	less than once a day	Total
Less Than One Year	5 55.6[a]	4 44.4	9 5.2
1 - 5 Years	47 85.5	8 14.5	55 31.6
6 - 10 Years	28 70.0	12 30.0	40 23.0
11 - 15 Years	20 62.5	12 37.5	32 18.4
16 - 20 Years	18 94.7	1 5.3	19 10.9
Over 20 Years	17 89.5	2 10.5	19 10.9
Total	135 77.6	39 22.4	174 100.0

Chi square = 14.739 5 d.f. p = 0.0115

[a]percentage

Table 8

CONTINGENCY TABLE FOR RESPONSES TO COMPETENCY STATEMENT THIRTEEN AND LENGTH OF EMPLOYMENT

Length of Employment	13. Determine When to Change the Color of Sewing Thread		
	at least once a day	less than once a day	Total
Less Than One Year	5 55.6[a]	4 44.4	9 5.1
1 - 5 Years	47 87.0	7 13.0	54 30.9
6 - 10 Years	36 90.0	4 10.0	40 22.9
11 - 15 Years	25 73.5	9 26.5	34 19.4
16 - 20 Years	17 89.5	2 10.5	19 10.9
Over 20 Years	18 94.7	1 5.3	19 10.9
Total	148 84.6	27 15.4	175 100.0

Chi square = 11.993 5 d.f. p = 0.0349

[a]percentage

(94.7 per cent) indicated that the task would be performed at least once a day. Only five respondents (55.6 per cent) who had been employed less than a year were in agreement.

A significant relationship was present when responses to competency statement twenty-four, "coordinates hand and foot with each other with some degree of skill", were computed by length of employment (Table 9).

Table 9

CONTINGENCY TABLE FOR RESPONSES TO COMPETENCY STATEMENT TWENTY-FOUR AND LENGTH OF EMPLOYMENT

Length of Employment	24. Coordinates Hand and Foot with Each Other with Some Degree of Skill		
	at least once a week	less than once a week	Total
Less Than One Year	5 55.6[a]	4 44.4	9 5.1
1 - 5 Years	54 98.2	1 1.8	55 31.3
6 - 10 Years	39 97.5	1 2.5	40 22.7
11 - 15 Years	34 100.0	0 0.0	34 19.3
16 - 20 Years	18 94.7	1 5.3	19 10.8
Over 20 Years	18 94.7	1 5.3	19 10.8
Total	168 95.5	8 4.5	176 100.0

Chi square = 36.013 5 d.f. p = 0.0000

[a]percentage

Of the respondents who had been employed less than one year, five (55.6 per cent) indicated that the task was performed at least once a day while four participants (44.4 per cent) checked that the task was performed less than once a day. In the remaining categories, over ninety-four percent of the respondents indicated that the task was performed at least once a day.

Age of Respondents

Only one significant relationship was present when responses to the twenty-four competency statements and age of respondents were analyzed. The relationship between responses to competency statement eleven, "detects and corrects defects", and age was significant at $p < .05$ (Table 10). Of the respondents who were twenty-one years of age or older, over fifty-five per cent indicated that this task was performed at least once a day. One hundred per cent of the respondents who were less than twenty years old indicated that the task was performed less than once a day.

Educational Level

When the responses of the participants to the competency statements were compared according to educational level, six significant relationships were present. Three of these tables were not presented since results obtained were affected by the different operations which sewers perform including use of the border machine, making pleats for skirts, and inserting zippers in cushion borders (Appendix D).

There was a significant relationship between the participants' responses to competency statement one, "performs minor adjustments on the sewing machine", and educational level (Table 11). Eight respondents (66.7 per cent) having more than a high school education indicated that the task would be performed at least once a week. Thirty-three respondents (40.2 per cent) who had completed high school checked the "less than once a week" column. Of the respondents who had not completed high school (38.2 per cent) indicated that the task would be performed at least once a day.

Table 10

CONTINGENCY TABLE FOR RESPONSES TO COMPETENCY STATEMENT ELEVEN AND AGE

Age	11. Detects and Corrects Defects		
	at least once a day	less than once a day	Total
Less Than 20 Years	0 0.0[a]	4 100.0	4 2.4
21 - 30 Years	20 64.5	11 35.5	31 18.6
31 - 40 Years	25 55.6	20 44.4	45 26.9
41 - 50 Years	27 71.1	11 28.9	38 22.8
51 - 60 Years	29 69.0	13 31.0	42 25.1
Over 60 Years	6 85.7	1 14.3	7 4.2
Total	107 64.1	60 35.9	167 100.0

Chi square = 11.234 5 d.f. p = 0.0469

[a]percentage

Table 11

CONTINGENCY TABLE FOR RESPONSES TO COMPETENCY STATEMENT ONE AND EDUCATIONAL LEVEL

Educational Level	1. Performs Minor Adjustments on the Sewing Machine.			
	at least once a day	weekly, but not daily	less than once a week	Total
Less Than High School	31 38.3[a]	28 34.6	22 27.2	81 46.3
High School	23 28.0	26 31.7	33 40.2	82 46.9
High School - Plus	4 33.3	8 66.7	0 0.0	12 6.9
Total	58 33.1	62 35.4	55 31.4	175 100.0

Chi square = 11.196 4 d.f. p = 0.0244

[a]percentage

A significant relationship occurred between the responses of the participants to competency statement five, "cleans and oils the machine", and educational level (Table 12). Over seventy per cent of the respondents with less than a high school education and 79.3 per cent of those who had completed high school indicated that the task would be performed at least once a day. Only 50 per cent of the respondents with more than a high school education checked the column "at least once a day" and 33.3 per cent of the same respondents indicated that the task would be performed less than once a week.

A significant relationship was present between responses of the participants to competency statement twelve, "knows the sewing sequence

Table 12

CONTINGENCY TABLE FOR RESPONSES TO COMPETENCY STATEMENT FIVE AND EDUCATIONAL LEVEL

Educational Level	5. Cleans and Oils the Machine			
	at least once a day	weekly, but not daily	less than once a week	Total
Less Than High School	58 71.6[a]	16 19.8	7 8.6	81 46.3
High School	65 79.3	14 17.1	3 3.7	82 46.9
High School - Plus	6 50.0	2 16.7	4 33.3	12 6.9
Total	129 73.7	32 18.3	14 8.0	175 100.0

Chi square = 13.086 4 d.f. p = 0.0109

[a]percentage

for the upholstery covering", and educational level (Table 13). One hundred per cent of the respondents with more than a high school education indicated that the task would be performed at least once a day. Only fifty-seven respondents (70.4 per cent) with a high school education were in agreement.

Method of Payment

Significant relationships occurred between responses of the participants to ten of the competency statements and method of payment. Six of these tables are presented in Appendix D because they referred to specific procedures that different sewers may be employed to perform.

Table 13

CONTINGENCY TABLE FOR RESPONSES TO COMPETENCY STATEMENT TWELVE AND EDUCATIONAL LEVEL

Educational Level	12. Knows the Sewing Sequence for the Upholstery Covering		
	at least once a day	less than once a day	Total
Less than High School	65 81.3[a]	15 18.8	80 46.2
High School	57 70.4	24 29.6	81 46.8
High School - Plus	12 100.0	0 0.0	12 6.9
Total	134 77.5	39 22.5	173 100.0

Chi square = 6.481 2 d.f. p = 0.0391

[a]percentage

A significant relationship occurred when responses to competency statement four, "changes the bobbin", and method of payment were analyzed (Table 14). One hundred per cent of the respondents who were paid according to the number of pieces completed indicated that the bobbin would be changed at least once a day. Of the salaried employees, 89.5 per cent checked the same category. Fourteen respondents (87.5 per cent) who were sometimes paid by either piece work or by hour work and forty-five (84.9 per cent) of those receiving an hourly wage were in agreement.

A significant relationship occurred between responses to competency statement five, "cleans and oils the machine", and method of payment

Table 14

CONTINGENCY TABLE FOR RESPONSES TO COMPETENCY STATEMENT FOUR AND METHOD OF PAYMENT

Method of Payment	4. Changes the Bobbin		
	at least once a day	less than once a day	Total
Piece Work	86 100.0[a]	0 0.0	86 49.4
Hourly Wage	45 84.9	8 15.1	53 30.5
Sometimes Both	14 87.5	2 12.5	16 9.2
Salary	17 89.5	2 10.5	19 10.9
Total	162 93.1	12 6.9	174 100.0

Chi square = 13.089 3 d.f. p = 0.0040

[a]percentage

(Table 15). Of those respondents who were sometimes paid by either piece work or hour work, fifteen (93.8 per cent) indicated that this task would be performed at least once a day. Seventy-six respondents (87.4 per cent) who were paid according to piece work were in agreement. Only 56.6 per cent of those respondents who received an hourly wage checked the "at least once a day" column. Eleven of the salaried respondents (57.9 per cent) indicated that the machines would be cleaned and oiled less than once a day.

Table 15

CONTINGENCY TABLE FOR RESPONSES TO COMPETENCY STATEMENT FIVE AND METHOD OF PAYMENT

Method of Payment	5. Cleans and Oils the Machine		
	at least once a day	less than once a day	Total
Piece Work	76 87.4[a]	11 12.6	87 49.7
Hourly Wage	30 56.6	23 43.4	53 30.3
Sometimes Both	15 93.8	1 6.3	16 9.1
Salary	8 42.1	11 57.9	19 10.9
Total	129 73.7	46 26.3	175 100.0

Chi square = 29.476 3 d.f. p = 0.0000

[a]percentage

A significant relationship occurred between responses of the participants to competency statement eleven, "detects and corrects defects", and method of payment (Table 16). Seven respondents (43.8 per cent) who were sometimes paid either by piece work or by the hour checked both the "at least once a day" column and the "weekly, but not daily" column. Thirty-eight respondents (74.5 per cent) who were paid an hourly wage indicated that the task would be performed at least once a day, while thirteen of the salaried workers (68.4 per cent) and fifty-two (60.5 per cent) of those paid according to piece work were in agreement.

Table 16

CONTINGENCY TABLE FOR RESPONSES TO COMPETENCY STATEMENT ELEVEN AND METHOD OF PAYMENT

Method of Payment	11. Detects and Corrects Defects			
	at least once a day	weekly, but not daily	less than once a week	Total
Piece Work	52 60.5[a]	17 19.8	17 19.8	86 50.0
Hourly Wage	38 74.5	9 17.6	4 7.8	51 29.7
Sometimes Both	7 43.8	2 12.5	7 43.8	16 9.3
Salary	13 68.4	5 26.3	1 5.3	19 11.0
Total	110 68.4	33 26.3	29 5.3	172 11.0

Chi square = 14.354 6 d.f. p = 0.0259

[a]percentage

A significant relationship occurred between responses to competency statement fourteen, "selects supplies such as tape, thread and cord according to specifications", and method of payment (Table 17). Sixty-five respondents (75.6 per cent) who were paid on the basis of piece work indicated that the task would be performed at least once a day. Of the salaried workers, 73.7 per cent were in agreement. Only thirty (57.7 per cent) of those who were paid an hourly wage made the same response.

Table 17

CONTINGENCY TABLE FOR RESPONSES TO COMPETENCY STATEMENT FOURTEEN AND METHOD OF PAYMENT

Method of Payment	14. Selects Supplies Such as Tape, Thread, and Cord According to Specifications			
	at least once a day	weekly, but not daily	less than once a week	Total
Piece Work	65 75.6[a]	12 14.0	9 10.5	86 49.7
Hourly Wage	30 57.7	4 7.7	18 34.6	52 30.1
Sometimes Both	11 68.8	1 6.3	4 25.0	16 9.2
Salary	14 73.7	1 5.3	4 21.1	19 11.0
Total	120 69.4	18 10.4	35 20.2	173 100.0

Chi square = 13.267 6 d.f. p = 0.0390

[a]percentage

Discussion of Attitudes Toward Work

One of the purposes of the study was to determine the extent to which the respondents' perceptions of attitudes toward work were consistent. The respondents were asked to check the statements concerning attitudes toward work according to their degree of importance. When these data were analyzed, it was believed that the responses were not sensitive indicators of the respondents beliefs. Over ninty per cent of the respondents either failed to check some of the statements or checked either the "highly

important" or "somewhat important" categories (Table 18). Few of the respondents (2.8 per cent or less) checked the category "of little importance". Only one respondent indicated that five of the statements were unimportant. No respondent checked the "unimportant" column for seven of the statements. This response to the attitudes toward work was not evidenced when the instrument was pretested.

The spread of scores for the responses of the participants to attitudes toward work was small. This was indicated by the standard deviations of the scores presented in Table 19. Therefore, little could be obtained from the data.

Discussion of the Hypotheses

Hypothesis I. There are no significant differences between the competencies needed for the occupation of upholstery sewer as perceived by the performers themselves and by their supervisors. Significant relationships occurred at $p < .05$ between the responses of the participants in the study to competency statements one, five, nine, twelve, fifteen, eighteen, nineteen, twenty, and twenty-three when compared according to occupation. Since significant relationships did occur, the hypothesis was rejected and the assumption was made that differences did exist for these particular competencies.

Hypothesis II. There are no significant differences between the respondents' perceptions of competencies when compared by length of employment, age, sex, educational level, and method of payment. Significant relationships did occur between the respondents' responses to the following competency statements and length of employment: twelve,

Table 18

SUMMARY OF NUMBER AND PERCENTAGE OF RESPONSES TO ATTITUDES TOWARD WORK

Attitudes Toward Work	Degree of Importance					
	No Response	Highly Important	Somewhat Important	Undecided	Of Little Importance	Unimportant
1	23 13.1[a]	129 73.3	12 6.8	8 4.5	3 1.7	1 0.6
2	20 11.4	145 82.4	10 5.7	1 0.6	0 0.0	0 0.0
3	21 11.9	143 81.3	9 5.1	0 0.0	2 1.1	1 0.6
4	20 11.4	126 71.6	20 11.4	5 2.8	5 2.8	0 0.0
5	21 11.9	118 67.0	21 11.9	15 8.5	1 0.6	0 0.0
6	21 11.9	110 62.5	34 19.3	8 4.5	2 1.1	1 0.6
7	26 14.8	140 79.5	7 4.0	3 1.7	0 0.0	0 0.0
8	20 11.4	115 65.3	33 18.8	3 1.7	4 2.3	1 0.6
9	20 11.4	148 83.1	8 4.5	0 0.0	0 0.0	0 0.0
10	20 11.4	146 83.0	7 4.0	2 1.1	1 0.6	0 0.0
11	21 11.9	142 80.7	10 5.7	2 1.1	1 0.6	0 0.0
12	21 11.9	134 76.1	12 6.8	7 4.0	1 0.6	1 0.6
13	20 11.4	145 82.4	8 4.5	2 1.1	1 0.6	0 0.0

[a]percentage

Table 19

MEASURES OF VARIABILITY FOR RESPONSES TO ATTITUDES TOWARD WORK

Attitudes Toward Work	Mean	Standard Deviation	Variance
1	1.102	0.786	0.618
2	0.955	0.438	0.192
3	0.985	0.605	0.366
4	1.142	0.761	0.580
5	1.188	0.774	0.599
6	1.222	0.801	0.742
7	0.926	0.502	0.252
8	1.199	0.793	0.629
9	0.932	0.395	0.155
10	0.966	0.500	0.250
11	0.977	0.523	0.274
12	1.068	0.698	0.487
13	0.972	0.506	0.256

thirteen, nineteen, and twenty-four. One significant relationship occurred between responses to competency statement eleven and age of the respondents. Significant relationships occurred between responses of the respondents to six of the competency statements and educational level. Significant relationships occurred between responses to the following competency statements and method of payment: four, five, nine, eleven,

fourteen, sixteen, seventeen, eighteen, nineteen, and twenty. Since significant relationships did occur between responses of the respondents to some of the competency statements when compared by the different variables, the hypothesis was rejected. It was assumed that differences did occur.

Hypothesis III. There are no significant differences between attitudes toward work as perceived by the performers and their supervisors. Since responses to attitudes toward work apparently were not sensitive to the beliefs of the respondents, these data were not analyzed. No assumptions were made concerning this hypothesis.

Hypothesis IV. There are no significant differences between the perceptions of the attitudes of the respondents toward work when compared by length of employment, age, sex, educational level, and method of payment. The same statements apply to this hypothesis as were made concerning the third hypothesis.

CHAPTER V

SUMMARY AND IMPLICATIONS

Considerable emphasis has been placed on determining competencies needed for various occupations. When one knows the specific competencies needed to perform a task, school curricula can be designed to enhance learning opportunities.

The Problem

The primary purposes of this study were: (1) to determine relationships between employment status and the competencies necessary for the occupation of upholstery sewer and (2) to determine relationships between the respondents' perceptions of needed competencies as related to length of employment, age, sex, educational level, and method of payment. The study was designed to: (1) determine the competencies which individuals employed as sewers in the manufacture of upholstered furniture in North Carolina perceived as necessary for their occupation; (2) determine the competencies which supervisors of sewers perceived as necessary for the occupation of upholstery sewer; (3) determine the extent to which the performers' and their supervisors' perceptions of job competencies were consistent; (4) determine the extent to which the respondents' attitudes toward work were consistent; and (5) determine the extent to which the respondents' perceptions were related to five selected dimensions--length of employment, age, sex, educational level, and method of payment.

The hypotheses tested in this study were:

1. There are no significant relationships between the competencies needed for the occupation of upholstery sewer as perceived by the performers themselves and by their supervisors.

2. There are no significant relationships between the respondents' perceptions of competencies when compared by length of employment, age, sex, educational level, and method of payment.

3. There are no significant relationships between attitudes toward work as perceived by the performers and their supervisors.

4. There are no significant relationships between the perceptions of the attitudes of the respondents toward work when compared by length of employment, age, sex, educational level, and method of payment.

Limitations

This study included upholstery sewers and their supervisors who were employed in seven selected upholstered furniture manufacturing firms in North Carolina. It was limited to firms that employed personnel directors. It was further limited to firms that belonged to the Southern Furniture Manufacturers Association.

Study Design

An interview schedule was developed to ascertain perceptions of respondents in relation to competencies needed for the occupation of upholstery sewer and for their attitudes toward work. Twenty-four competencies were listed in the interview schedule. The respondents were asked to check the responses that most nearly represented their perception as to the frequency with which a task was performed. These responses were: "several times a day", "once a day", "several times a week",

"once a week", or "less than once a week". However, when the data were analyzed, it was determined that the number of responses which had occurred in each category was not sufficient to facilitate a valid analysis. The five categories were first collapsed into the following: the first two categories became "at least once a day"; the second two categories became "weekly, but not daily"; and "less than once a week" remained the same. These categories were later collapsed into the following: "at least once a day" and "less than once a day".

When the participants' responses to attitudes toward work were analyzed, it was apparent that the majority of the respondents had checked the categories "highly important" or "somewhat important". When the means of the scores and the standard deviations were examined, it was determined that the spread of scores was too small and reliability would be low. It was believed that the responses were not sensitive indicators of the respondents' beliefs. Therefore, further analysis was not recommended.

Seven upholstered furniture manufacturing firms having personnel directors were selected for participation by the Director of Services of the Southern Furniture Manufacturers Association. Through the use of the interview schedule, data were collected by personal interview, with the upholstery sewers and their supervisors who were employed in the selected manufacturing firms. One hundred and seventy-six respondents participated in the study.

Major Findings

Some major findings of this study concerning competencies needed for the occupation of furniture upholstery sewer as perceived by the

performers and their supervisors were:

1. Fifty-five of the upholstery sewers and supervisors had been employed in the furniture industry from one to five years. Only nine respondents had been employed in the industry less than one year.
2. Only five respondents were less than twenty years of age and only seven respondents were over sixty years of age. The age range of the remaining respondents was almost equally divided among the other age categories.
3. A majority of the respondents, 152, were female. Only eighteen of the participants were male.
4. Only twelve respondents had more than a high school education. The majority of the sewers and supervisors had either less than a high school education or had completed high school.
5. Almost one-half of the respondents (49.4 per cent) were paid according to piece work. Only sixteen participants were sometimes paid by either piece work or by the hour.
6. Responses of the participants to nine competency statements differed significantly when compared by the following variables: occupation, length of employment, age, educational level, and method of payment. The nine competency statements were: (1) "performs minor adjustments on the sewing

machine"; (4) "changes the bobbin"; (5) "cleans and oils the machine"; (11) "detects and corrects defects"; (13) "determines when to change the color of sewing thread"; (14) "selects supplies such as tape, thread, and cord according to specifications"; (15) "sews pull bands into seams of upholstery parts"; (23) "carries out instructions involving variation from standard situations"; and (24) "coordinates hand and foot with each other with some degree of skill".

7. A significant relationship occurred between responses of the participants for competency statement one, "performs minor adjustments on the sewing machine", and variables educational level and occupation. Sixty-six per cent of the respondents having more than a high school education indicated that the task would be performed at least once a week. Fifty per cent of the supervisors checked the same category.

8. Responses to competency statement four, "changes the bobbin", were significant when compared according to method of receiving payment. One hundred per cent of the respondents who were paid on the basis of piece work indicated that this competency would be needed at least once a day. The lowest percentage for this category, 84.9, was obtained by respondents who were paid an hourly wage.

9. Significant relationships occurred when responses to competency statement five, "cleans and oils the machine", were compared according to occupation, educational level, and method of payment. One hundred and seventeen sewers (78.5 per cent) and only 50.0 per cent of the supervisors checked the same column. Seventy-nine per cent of those respondents who had completed high school indicated that this competency would be needed at least once a day while only fifty per cent of the respondents having more than a high school education checked this category. Slightly over ninety-three per cent of those respondents who were sometimes paid by either piece work or by the hour checked the first column while only 42.1 per cent of the salaried workers were in agreement.

10. Significant relationships occurred between responses to competency statement eleven "detects and corrects defects", and the variables age and method of payment. Of the respondents who were over sixty years of age, 87.7 per cent indicated that this competency would be performed at least once a day while none of the respondents who were less than twenty years of age checked this category. Thirty-eight, (74.5 per cent) respondents who were paid an hourly wage checked the first category while only 43.8 per cent of the

participants who were sometimes paid by either piece work or hourly wage were in agreement.

11. A significant relationship occurred between responses to competency statement fourteen, "selects supplies such as tape, thread, and cord according to specifications", and method of payment. Of the workers who were paid according to piece work, 75.6 per cent checked the category "at least once a day". Only 57.7 per cent of the respondents who were paid an hourly wage checked this category.

12. A significant relationship occurred between the responses of the participants to competency statement twenty-three, "carries out instructions involving variation from standard situations", and occupation. A majority of the supervisors (61.5 per cent) indicated that the task would be performed at least once a day. Only 53.0 per cent of the sewers were in agreement.

13. Significant relationships occurred between responses to competency statement twenty-four, "coordinates hand and foot with each other with some degree of skill", and length of employment. Over ninety-four per cent of the respondents who had been employed in the industry from sixteen to twenty years indicated that the task would be performed at least once a day. Of the respondents who had been employed less than one year, 55.6 per cent were in agreement.

Hypotheses Tested

Hypothesis I. There are no significant differences between the competencies needed for the occupation of upholstery sewer as perceived by the performers themselves and by their supervisors. Since significant relationships occurred between responses of the participants to the competency statements and occupation, this hypothesis was rejected.

Hypothesis II. There are no significant differences between the respondents' perceptions of competencies when compared by length of employment, age, sex, educational level, and method of payment. Since significant relationships occurred between responses to competency statements and selected variables, the second hypothesis was rejected.

Hypotheses III and IV. Since responses to attitudes toward work were apparently not sensitive indicators of the beliefs of the respondents, hypotheses three and four were not tested.

Implications

The findings were interpreted and the implications were stated with an awareness of the limitations that existed in this study. Implications resulting from the study may provide a frame of reference for curriculum planning in vocational home economics. Implications drawn from this study were grouped in two categories: (1) curriculum planning and (2) further research.

Curriculum Planning

It was evident that the upholstery sewers and their supervisors were in agreement concerning eight of the competency statements needed

for the occupation of upholstery sewer. A knowledge of competencies as perceived by the sewers and supervisors could be of value to those who are involved in curriculum planning. Some implications concerning the discrepancies among responses which have relevance for curriculum planning were:

1. Sewers and supervisors disagreedin their responses that related to repair of the machines. Supervisors indicated that minor repairs would be made by the sewer at least weekly. However, sewers were approximately evenly divided in their responses. Apparently supervisors believed that sewers performed more minor repairs than sewers actually did perform.
2. Sewers and supervisors disagreed in their responses to maintenance of the machines. A majority of the sewers indicated that machines would be cleaned and oiled at least daily. However, only fifty per cent of the supervisors were in agreement.
3. Sewers and supervisors disagreed in their responses concerning knowledge of the sewing sequence for the upholstery covering. Over ninety-six per cent of the supervisors indicated that the task would be performed daily while over twenty-five per cent of the sewers disagreed.
4. Participants disagreed in their responses to competency statements that were related to specific construction processes such as inserting zippers,

sewing cushions, sewing welt, and sewing skirts. However, these differences were present in responses of the sewers. The above construction processes are more mechanized and the performer operates a machine designed specifically for each process. Sewers who perform these specific operations are usually paid an hourly wage.

Further Research

1. Because of the limitations of this study, further research is needed to determine specific competencies for all tasks performed in the home furnishings occupations.
2. It is recommended that consideration be given to the clustering of competencies needed for the various occupations which exist within the upholstered furniture industry as performed by both men and women.

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APPENDIX A

Interview Schedule

PART I. PERSONAL DATA SHEET DIRECTIONS: Please check the appropriate answer.

Number of years of working as an upholstery sewer or supervisor (not necessarily with this firm.)

Less than 1 year ____ 1-5 years _____ 6-10 years _____ 11-15 years _____ 16-20 years _____ Over 20 years _____

Age of employee.

Less than 20 _____ 21-30 years _____ 31-40 years _____ 41-50 years _____ 51-60 years _____ Over 60 _____

Schooling completed.

Less than high school _____ High School _____ High school-plus (technical institute, etc.) _____

Method of receiving payment most of the time.

Piece work _____ Hourly wage _____ Sometimes both _____ Salary _____

Sex. Male _____ Female _____

Occupation. Upholstery sewer _____ Supervisor _____

PART II. CHECKLIST--TASKS FOR THE OCCUPATION OF UPHOLSTERY SEWER

DIRECTIONS: Please check the appropriate block for each statement. PLEASE CHECK EACH STATEMENT.

The beginning upholstery sewer:	several times a day 1	once a day 2	several times a week 3	once a week 4	less than once a week 5
1. Performs minor adjustments on the sewing machine (i.e., regulating tension.)					
2. Performs major adjustments on the sewing machine to prepare it to perform its function or restore its proper functioning if it breaks down					
3. Threads the machine					
4. Changes the bobbin					
5. Cleans and oils the machine					
6. Starts, controls, and stops the machine					
7. Stitches seam widths accurately					
8. Determines the correct speed of the machine					
9. Inserts or places materials correctly into the border stitching machine					
10. Adjusts materials or controls of the sewing machine when necessary (i.e., adjusts the presser foot pressure for different weights or material.)					
11. Detects and corrects defects					

PERSONAL DATA SHEET (continued)

	several times a day 1	once a day 2	several times a week 3	once a week 4	less than once a week 5
12. Knows the sewing sequence for the upholstery covering					
13. Determines when to change the color of sewing thread					
14. Selects supplies such as tape, thread and cord according to specifications					
15. Sews pull bands into seams of upholstery parts					
16. Sews law labels into the upholstery parts					
17. Sews welts into upholstery parts					
18. Makes pleats for a skirt from materials previously cut					
19. Inserts zippers into cushion borders					
20. Sews cushions					
21. Carries out one or two step instructions					
22. Carries out detailed instructions					
23. Carries out instructions involving variation from standard situations (i.e., transfer of instructions when a new style is introduced.)					
24. Coordinates hand and foot with each other with some degree of skill					

Which of the following characteristics would you consider to be important if you were hiring an upholstery sewer? Please check the degree of importance.

An upholstery sewer who:	Highly Important	Somewhat Important	Undecided	Of Little Importance	Unimportant
1. Accepts constructive criticism					
2. Has a positive attitude toward work					
3. Cooperates willingly					
4. Is considerate and courteous					
5. Is energetic					
6. Is willing to go beyond assigned duties					
7. Performs duties with skill					

PERSONAL DATA SHEET (continued)

	Highly Important	Somewhat Important	Undecided	Of Little Importance	Unimportant
8. Is clean and appropriately dressed for work					
9. Is dependable					
10. Is efficient					
11. Manages time and energy well					
12. Is willing to do his/her share of the more difficult tasks					
13. Takes pride in his/her work					

APPENDIX B

Contingency Tables for Competency Statements Nine, Fifteen, Eighteen, Nineteen, and Twenty and Occupation

CONTINGENCY TABLE FOR RESPONSES TO COMPETENCY STATEMENT NINE AND OCCUPATION

Occupation	9. Inserts or Places Materials Correctly into the Border Stitching Machine		
	at least once a day	less than once a day	Total
Sewer	50 33.6[a]	99 66.4	149 85.1
Supervisor	22 84.6	4 15.4	26 14.9
Total	72 4.1	103 58.9	175 100.0

Chi square = 21.770 1 d.f. p = 0.0000

[a]percentage

CONTINGENCY TABLE FOR RESPONSES TO COMPETENCY STATEMENT FIFTEEN AND OCCUPATION

Occupation	15. Sews Pull Bands into Seams of Upholstery Parts		
	at least once a day	less than once a day	Total
Sewer	81 55.5[a]	65 44.5	146 85.4
Supervisor	20 80.0	5 20.0	25 14.6
Total	101 59.1	70 40.9	171 100.0

Chi square = 4.342 1 d.f. p = 0.0372

[a]percentage

CONTINGENCY TABLE FOR RESPONSES TO COMPETENCY STATEMENT EIGHTEEN AND OCCUPATION

Occupation	18. Makes Pleats for a Skirt from Materials Previously Cut			
	at least once a day	weekly, but not daily	less than once a week	Total
Sewer	20 13.5[a]	16 10.8	112 75.7	148 85.1
Supervisor	16 61.5	4 15.4	6 23.1	26 14.9
Total	36 20.7	20 11.5	118 67.8	174 100.0

Chi square = 34.077 2 d.f. p = 0.0000

[a]percentage

CONTINGENCY TABLE FOR COMPETENCY STATEMENT
NINETEEN AND OCCUPATION

Occupation	19. Inserts Zippers into Cushion Borders			
	at least once a day	weekly, but not daily	less than once a day	Total
Sewer	49 32.9[a]	8 5.4	92 61.7	149 85.1
Supervisor	20 76.9	3 11.5	3 11.5	26 14.9
Total	69 39.4	11 6.3	95 54.3	175 100.0

Chi square = 22.507 2 d.f. p = 0.0000

[a]percentage

CONTINGENCY TABLE FOR RESPONSES TO COMPETENCY STATEMENT TWENTY AND OCCUPATION

Occupation	20. Sews Cushions		
	at least once a day	less than once a day	Total
Sewer	95 64.2[a]	53 35.8	148 85.5
Supervisor	22 88.0	3 12.0	25 14.5
Total	117 67.6	56 32.4	173 100.0

Chi square = 4.504 1 d.f. p = 0.0338

[a]percentage

APPENDIX C

Contingency Table for Responses to Competency Statement Nineteen and Length of Employment

CONTINGENCY TABLE FOR RESPONSES TO COMPETENCY STATEMENT NINETEEN AND LENGTH OF EMPLOYMENT

Length of Employment	19. Inserts Zippers into Cushion Borders		
	at least once a day	less than once a day	Total
Less Than One Year	4 44.4[a]	5 55.6	9 5.1
1 - 5 Years	27 49.1	28 50.9	55 31.3
6 - 10 Years	12 30.0	28 70.0	40 22.7
11 - 15 Years	6 17.6	28 82.4	34 19.3
16 - 20 Years	13 68.4	6 31.6	19 10.8
Over 20 Years	8 42.1	11 57.9	19 10.8
Total	70 39.8	106 60.2	176 100.0

Chi square = 17.172 5 d.f. p = 0.042

[a]percentage

APPENDIX D

Contingency Tables for Responses to Competency Statements Nine, Eighteen, and Nineteen and Educational Level

CONTINGENCY TABLE FOR RESPONSES TO COMPETENCY STATEMENT NINE AND EDUCATIONAL LEVEL

Educational Level	9. Inserts or Places Materials Correctly into the Border Stitching Machine		
	at least once a day	less than once a day	Total
Less Than High School	30 37.0[a]	51 63.0	81 46.3
High School	32 39.0	50 61.0	82 46.9
High School - Plus	11 91.7	1 8.3	12 6.9
Total	73 41.7	102 58.3	175 100.0

Chi square = 13.288 2 d.f. p = 0.0013

[a]percentage

CONTINGENCY TABLE FOR RESPONSES TO COMPETENCY STATEMENT EIGHTEEN AND EDUCATIONAL LEVEL

Educational Level	18. Makes Pleats for a Skirt from Materials Previously Cut			
	at least once a day	weekly, but not daily	less than once a week	Total
Less Than High School	17 21.0[a]	9 11.1	55 67.9	81 46.6
High School	13 16.0	8 9.9	60 74.1	81 46.6
High School - Plus	7 58.3	2 16.7	3 25.0	12 6.9
Total	37 21.3	19 10.9	118 67.8	174 100.0

Chi square = 12.951 4 d.f. p = 0.0115

[a]percentage

CONTINGENCY TABLE FOR RESPONSES TO COMPETENCY STATEMENT NINETEEN AND EDUCATIONAL LEVEL

Educational Level	19. Inserts Zippers into Cushion Borders			
	at least once a day	weekly, but not daily	less than once a week	Total
Less Than High School	28 34.6[a]	4 4.9	49 60.5	81 46.3
High School	31 37.8	7 8.5	44 53.7	82 46.9
High School - Plus	11 91.7	0 0.0	1 8.3	12 6.9
Total	70 40.0	11 6.3	94 53.7	175 100.0

Chi square = 15.647 4 d.f. p = 0.0035

[a]percentage

APPENDIX E

Contingency Tables for Responses to Competency Statements Nine, Sixteen, Seventeen, Eighteen, Nineteen, and Twenty and Method of Payment

CONTINGENCY TABLE FOR RESPONSES TO COMPETENCY STATEMENT NINE AND METHOD OF PAYMENT

Method of Payment	9. Inserts or Places Materials Correctly into the Border Stitching Machine		
	at least once a day	less than once a day	Total
Piece Work	21 24.1[a]	66 75.9	87 49.7
Hourly Wage	28 52.8	25 47.2	53 30.3
Sometimes Both	6 37.5	10 62.5	16 9.1
Salary	17 89.5	2 10.5	19 10.9
Total	72 41.1	103 58.9	175 100.0

Chi square = 31.794 3 d.f. p = 0.0000

[a]percentage

CONTINGENCY TABLE FOR RESPONSES TO COMPETENCY STATEMENT SIXTEEN AND METHOD OF PAYMENT

Method of Payment	16. Sews Law Labels into the Upholstery Parts			
	at least once a day	weekly, but not daily	less than once a week	Total
Piece Work	63 72.4[a]	7 8.0	17 19.5	87 50.0
Hourly Wage	25 48.1	2 3.8	25 48.1	52 29.9
Sometimes Both	10 62.5	2 12.5	4 25.0	16 9.2
Salary	17 89.5	1 5.3	1 5.3	19 10.9
Total	115 66.1	12 6.9	47 27.0	174 100.0

Chi square = 20.044 6 d.f. p = 0.0027

[a]percentage

CONTINGENCY TABLE FOR RESPONSES TO COMPETENCY STATEMENT SEVENTEEN AND METHOD OF PAYMENT

Method of Payment	17. Sews Welts into Upholstery Parts		
	at least once a day	less than once a day	Total
Piece Work	74 86.0[a]	12 14.0	86 50.0
Hourly Wage	31 60.8	20 39.2	51 29.7
Sometimes Both	11 68.8	5 31.3	16 9.3
Salary	17 89.5	2 10.5	19 11.0
Total	133 77.3	39 22.7	172 100.0

Chi square = 13.959 3 d.f. p = 0.0030

[a]percentage

CONTINGENCY TABLE FOR RESPONSES TO COMPETENCY STATEMENT EIGHTEEN AND METHOD OF PAYMENT

Method of Payment	18. Makes Pleats for a Skirt from Materials Previously Cut			
	at least once a day	weekly, but not daily	less than once a week	Total
Piece Work	11 12.8[a]	6 7.0	69 80.2	86 49.4
Hourly Wage	9 17.0	9 17.0	35 66.0	53 30.5
Sometimes Both	4 25.0	2 12.5	10 62.5	16 9.2
Salary	13 68.4	3 15.8	3 15.8	19 10.9
Total	37 21.3	20 11.5	117 67.2	174 100.0

Chi square = 36.273 6 d.f. p = 0.0000

[a]percentage

CONTINGENCY TABLE FOR RESPONSES TO COMPETENCY STATEMENT NINETEEN AND METHOD OF PAYMENT

Method of Payment	19. Inserts Zippers into Cushion Borders		
	at least once a day	less than once a day	Total
Piece Work	27 31.0[a]	60 69.0	87 49.7
Hourly Wage	22 41.5	31 58.5	53 30.3
Sometimes Both	5 31.3	11 68.8	16 9.1
Salary	16 84.2	3 15.8	19 10.9
Total	70 40.0	105 60.0	175 100.0

Chi square = 18.948 3 d.f. p = 0.0003

[a]percentage

CONTINGENCY TABLE FOR RESPONSES TO COMPETENCY STATEMENT TWENTY AND METHOD OF PAYMENT

Method of Payment	20. Sews Cushions		
	at least once a day	less than once a day	Total
Piece Work	61 70.1[a]	26 29.9	87 50.3
Hourly Wage	27 51.9	25 48.1	52 30.1
Sometimes Both	13 81.3	3 18.8	16 9.2
Salary	16 88.9	2 11.1	18 10.4
Total	117 67.6	56 32.4	173 100.0

Chi square = 11.177 3 d.f. p = 0.0108

[a]percentage