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A COMPARISON OF RESPONSES OF
MALE AND FEMALE HIGH SCHOOL GRADUATES TO
INDICATORS OF QUALITY OF LIFE AND CAREER SATISFACTION

by

Deanne Lee Buckendorff Byerly

A Dissertation
submitted to the
Faculty of The Graduate College
in partial fulfillment
of the
Degree of Doctor of Education

Western Michigan University
Kalamazoo, Michigan
April 1977

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Deanne Lee Buckendorff Byerly

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CHAPTER I

THE PROBLEM AND ITS SETTING

Background

In January, 1974, acting on a request from the Board of Education to consider the implementation of a formal career education program in the Cedar Rapids, Iowa, public schools, the Research Services Department and Guidance Department of the schools began development of a comprehensive needs assessment for career education. As a result, after working closely with representatives from the total professional staff, a master plan entitled "A Comprehensive Needs Assessment - Career Education Study" was developed.

A statement of philosophy for the Cedar Rapids schools indicates that the educational experience taking place in Cedar Rapids should enable each person to develop potential which allows that individual "to become a fully functioning and responsible member of a diverse and changing democratic society" (Appendix A). Fully functioning, in this context, is used to mean being able to utilize a variety of skills and abilities in the pursuit of a satisfying life. To accomplish this philosophy the staff of the schools outlined a series of thirteen goals (Appendix A) including one related to career planning and job satisfaction.

The request for a formal career education program in the Cedar Rapids schools came from parents and interested community residents who

questioned if enough was being done in the Cedar Rapids schools related to career education. This request was met with concern by some members of the professional staff. There was no information available to indicate to what extent goals related to career planning and job satisfaction were being met; nor was any information available suggesting to what extent the graduates of the Cedar Rapids high schools were able to become fully functioning members of the community. Cedar Rapids educators could only guess as to whether the graduates were able to take jobs or find jobs that were satisfying to them upon graduating. There was some information regarding college bound students and their successes.

Statement of the Problem

This study was an attempt to ascertain factors bearing on career success and satisfaction with work and the life experience in general. It reported, analyzed, and summarized data collected from the Career Education Follow-Up Questionnaire (Appendix B). The study aided the educators of the Cedar Rapids schools in decision-making regarding career education and the formal adoption of a career education program.

This study constituted an examination of a comparison of the perceptions of 1,062 high school graduates, male and female, from the Cedar Rapids schools in the years 1968, 1971, and 1974. Information gathered through the administration of the Follow-Up Questionnaire gave participants the opportunity to indicate satisfaction or dissatisfaction with fifteen components of their life experience. The responses were evaluated along with responses to additional items on the questionnaire.

There were three major areas of concern for which information was gathered: career preparation and planning, job satisfaction, and the quality of life of the 1,062 participants in the study. Specifically, the effort was one of trying to determine if the graduate had: (a) prepared for and developed a career plan, (b) been able to find employment that was satisfying, and (c) found satisfaction with aspects of life identified by the individual as important.

The major questions pertinent to the study were:

1. Career Preparation and Planning

- 1.1 Were both males and females able to continue studies or to work after graduation?
 - 1.11 Was there a difference in the amount of education beyond high school received by the male graduates and the amount received by the female graduates?
 - 1.12 Was there a difference in the amount of additional training received by the males and that received by the females?
 - 1.13 Was there a difference in the employment status of the males and the employment status of the females?
 - 1.14 Was there a difference in the employment positions of the males and females?
- 1.2 Did the graduates, both male and female, develop career plans?
 - 1.21 Was there a difference in the choice of work the male and female graduates planned to seek?

1.22 Was there a difference between males and females
in the type of five-year plans each group developed?

1.23 Was there a difference between males and females
in the development of long-range career plans?

2. Job Satisfaction

2.1 Did the graduates of the Cedar Rapids high schools,
both male and female, find work that was satisfying
to them?

2.11 Was there a difference in the numbers and percent
of males reporting job satisfaction and the numbers
and percent of females reporting job satisfaction?

3. Quality of Life

3.1 Did the male and female graduates differ in choice
of components of quality of life they rated important?

3.2 Did the male and female graduates differ in satis-
faction with quality of life?

3.3 Was the family status of the graduates different between
the males and females in the study?

Delimitations

The study was limited to the surveying of the graduates of the classes of 1968, 1971, and 1974 of the Cedar Rapids high schools. It was also limited to reporting data collected in areas related to career planning, job satisfaction, and importance of fifteen indicators of quality of life as well as satisfaction with these indicators. The

fifteen indicators of quality of life came from a list developed by Flanagan and Russ-Eft (1975) in a carefully, systematic manner. Flanagan and Russ-Eft (1975) used the components in a study of 1,000 thirty-year old men and women. What Cedar Rapids researchers did not know, and did not discover until the Flanagan (1975) data were thoroughly analyzed, was that the list used in the Cedar Rapids study was in the exact order of importance as it was ranked by the 1,000 thirty-year old participants in the Flanagan study. In order to avoid further problems related to bias in measurement, responses of the two groups were not compared directly as had been planned. This problem was discussed further in Chapter III.

Need for the Study

The present curriculum and instructional program of the Cedar Rapids schools includes a variety of programs that expose the students to the humanities, music, literature, the social and biological sciences, as well as to mathematics, government, and a variety of areas like photography, oceanography and creative dramatics. The scope of the curriculum is broad and varied and has a number of advocates. There were few who wanted to see the curriculum offerings reduced, and yet a growing number of professional educators, board members, and parents as well wanted to be sure career education concepts were included in the curriculum. To some of these people, the adoption of a formal career education program was needed to accomplish the stated goals of the district.

To make way for new curriculum some programs would have to be altered. Some educators argued that career education components were already present in the curriculum. The cabinet of the instructional services division recognized the fact that there was an absence of data, that they did not know what parts of the curriculum to change to make way for a formal career education program and that additional information was needed to indicate if such changes should be made. This cabinet, made up of top administrative representatives from all three divisions of the central staff, instructed the research department to develop a plan that would gather the needed information. The instructional services division agreed that changes would not be made in the curriculum prior to the completion of a comprehensive study.

The major factor behind the development of the comprehensive study, of which this investigation is one part, was the lack of information available about the educational experience as viewed by the students themselves. The questions coming from those proposing a formal career education program for the schools could not be answered by the information that was available prior to this study. No one knew if students were able to make realistic career plans; or whether or not they were equipped to make decisions regarding career and personal goals. School officials did not know how well the graduates understood the nature of human relationships, an understanding that could be of great value in developing a satisfying life experience. Could the graduates form relationships that were satisfying? Did they find satisfaction in their total life experience? This investigation has helped

to provide some of these answers so that a total picture of the students graduating from the Cedar Rapids high schools could be developed and educators in Cedar Rapids would have more information upon which to base a decision regarding career education. Adding to the present educational experience before this evaluation effort would have been premature and possibly costly.

This study helped to ascertain what the life experience of these students was. Together with additional studies of the community and the students currently enrolled in the Cedar Rapids schools, this study helped to decide what should be done regarding an educational experience directly related to career education.

Significance of the Problem

Career education is one of the major current trends in education. Beginning in the early 1970's with Sidney Marland's appointment as head of the United States Office of Education, school districts throughout the country have been feeling a pressure to consider programs related to career education. Cedar Rapids educators, like those in communities elsewhere, had already studied the gifted, the handicapped, the educational experience of the various ethnic and racial minority groups, as well as the plight of the short-changed children of suburbia. New programs had been created to meet the needs identified in those studies. In the early 1970's, when the shift came to a concern for career education and to finding new and better ways of meeting the needs of youth as they related to career and personal goals, Cedar Rapids educators

thought the program of studies offered in the schools to be comprehensive and thorough. They did see a need, however, to gather accurate information to establish priorities for decision-making.

Accordingly, the Research Department of the Cedar Rapids schools designed the comprehensive plan of which this study was one dimension. This study provided a model for determining the extent to which concepts related to career education made an impact upon students. The study also addressed the question of whether or not the educational experience was equally suited to males and to females and whether or not the total experience was of value to students, regardless of talent, skills, socio-economic background and future plans. The philosophy of the Cedar Rapids schools included preparing the college bound, those entering a vocational program, and those preparing to enter the world of work directly for the experiences they would have in these areas. A final significance for the study was related to testing an evaluation model which provided information on career planning, job satisfaction, and quality of life of young adults.

This particular investigation closely paralleled the work of Campbell, Converse and Rodgers (1976) who sought an understanding of perceptions, evaluations and satisfactions regarding the condition of life of a large national sample of adults. (Campbell et al., 1976) The work of John Flanagan (1975), who assessed education's contribution to the life experience of a sample of adults, was extremely valuable in providing a model for analyzing these data.

The need for the study was directly related to helping to determine if the Cedar Rapids Community Schools should implement a formal career education program or should alter the current program to better meet the needs of males and/or females. The significance was directly related to providing a model for other school districts who may find a similar problem confronting them as pressure continues to be brought upon school districts to provide career education programs.

The Setting

The Cedar Rapids Community Schools consist of 27 elementary schools, six junior high schools, three conventional senior high schools, and one alternative senior high school. The teaching staff totals 1,300. Another 86 persons make up the administration which consists of principals, central staff and central administrators. The individuals in this group offer various supportive services to the classroom teacher. The total school population, grades K-12, is 23,000 students. (ABT Associates, 1975)

The population of the school district, which reaches slightly beyond the city limits of Cedar Rapids into the county, is 114,000 persons. Cedar Rapids itself has a population of 110,642 persons according to the 1970 U.S. Census. Eighty-five percent of the people now living in Cedar Rapids were born in the state of Iowa. (ABT Associates, 1975) There are several large minority groups, the most prominent being 2,500 native born Czechoslovakians who, together with those whose ancestors began settling in Cedar Rapids in the late 1800's, formed a strong community known as "Little Bohemia." (ABT Associates,

1975) (Cedar Rapids-Marion Area Chamber of Commerce, 1973) Other minorities of some size are the Germans, the Americans who are black, and the Latinos. Most of these minority group members attend the same attendance centers en bloc, from elementary school through senior high school. Cedar Rapids is a trade and distribution center for eastern Iowa. Surrounded by agricultural areas, much of the light industry is devoted to the processing of food. Collins Radio is the largest employer in the city, with Quaker Oats close behind. (Cedar Rapids-Marion Area Chamber of Commerce, 1973)

The city is divided into quadrants with educational and recreational facilities located in each section. Tour books indicate the city's neighborhoods and parks as being worthy of sightseeing as well as some of the educational buildings that are part of the public school system. Large educational complexes are located within two hours of the city in all four directions, and the city itself is the home of three institutions of higher education.

The city schools have been cited for various awards and have received praises from many national groups. A 1966 survey of the schools by the Iowa Center for Research in School Administration at the University of Iowa was entitled Everything is Plus! That same year, Cedar Rapids was honored nationally for creativity in the design of two junior high school buildings. This award was the Pacemaker Award. Over the years, school personnel and a variety of programs in the Cedar Rapids schools have received awards ranging from curriculum development citations to awards for public relations materials, for building innovations related to the use of electronic equipment, and for the publication

of in-house communications. In 1969 the Public Broadcasting System saw Cedar Rapids' attempts to develop a Family Life and Sex Education program as one of the leading efforts of this kind in the country. A documentary of this program development was made for public television. The documentary detailed the way in which school personnel worked with the community to combat a bitter attack from outside the school system. The result was the documentary entitled, "The Three R's and Sex Education." Since that time, a variety of school personnel in other districts throughout the United States and surrounding territories have attempted to duplicate the Cedar Rapids model for implementing a Family Life and Sex Education program.

The awards do not stop Cedar Rapids educators from careful evaluation to determine if all students are being helped to develop to their fullest potential. A variety of efforts to evaluate current programs and assess the long range effects of the educational experience continues. One piece of evidence offered to substantiate a claim in interest for all students was a study begun in 1968. At that time, Cedar Rapids students ranked above the national norm on the Metropolitan Achievement Tests, the Iowa Basic Skills Tests, as well as several other measures of cognitive development. Several studies revealed that more than seventy-five percent of the students graduating from Cedar Rapids high schools were going on to colleges and were ranking in the upper half of their college classes. With this knowledge and a host of awards indicating that many things were being done that were worthwhile, Cedar Rapids educators took a look at the educational experience and decided that

there were at least 457 students who were not being reached. These were the students who dropped out before graduating from high school. The concern of the educators was for determining what could be done to help these students. (Cedar Rapids Community Schools, 1969)

The effort to reach the dropout and to find out more about him or her was a massive study that is still being conducted in a series of stages. To date, several attempts have been made to help students confront issues of importance to them. These issues surfaced, in part, during interviews with the dropouts. The programs include the Family Life Project entitled Responsible Human Growth and Development, the creation of the alternative high school, a varied high school curriculum in all three of the regular high schools, as well as the removal of most specific course requirements in the senior high schools. At the same time, a comprehensive curriculum and instructional effort was made to bring to the students a program that would help them develop an understanding for what it means to be human, for clarifying values, and for making decisions. A special effort was also made beginning in the late 1960's to help break down sex role stereotypes that limit both males and females in making choices regarding careers and personal goals.

This historical concern of the Cedar Rapids Community School personnel to find weaknesses and improve curriculum and instruction is now being carried out, not only in the study mentioned here, but in a number of other evaluation efforts. There is concern for each student in the Cedar Rapids schools. Efforts to learn more about the educational experience include seeking the perceptions of the current student

body as well as the graduates, community members, and the entire professional staff. Possibly when the total comprehensive study is complete, the questions related to whether or not the students graduating from the schools in Cedar Rapids are finding satisfying careers and leading satisfying lives will be answered more completely. (See Appendix C)

Definition of Terms

For the purposes of this study, career was defined as a course of professional life or employment which affords opportunity for progress or advancement in the world. (Oxford Dictionary, 1971, p. 340) A career plan was described as a thought-out design or stated program for that course of professional life or employment. Career goals had to do with the ends a person was striving to attain related to work, professional life, job or related activities such as education or training that would enable the individual to do some type of activity that is work related.

Work was used to mean an activity that produces something of value or importance for other people. It was used in this same way in a number of government studies on the subject, the latest being Work in America, a report of a special task force to the Secretary of Health, Education and Welfare. (O'Toole, 1972, p. 2) Beyond that extremely simple definition was a more philosophical foundation developed by Elliot Jaques in which work was defined as necessary for an individual-- as one of "the basic activities" in the life of an individual. Jaques (1961) described work as that which forces a person to come to grips with the environment, livelihood being at stake, and which confronts a

person with the actuality of his or her personal capacity to exercise judgment, to achieve concrete and specific results. It is more than that which satisfies the need for material possessions. It is that which gives a measure of how sane or insane a person is. (Jacques, 1961)

The term personal goal was used to indicate the ends a person strived to attain related to friendships, family, emotional development, maturity, intellectual development, health, recreation, socializing, community, and possibly religion.

Career education has been defined by Worthington (1972) as "a lifelong systematic way of acquainting students with the world of work in their elementary and junior high school years and preparing them in high school and in college to enter into and advance in a career field of their own choosing" (Worthington, 1972, pp. 3-4). He further conceded that career education was similar to vocational education but contended that there was a fundamental distinction with vocational education being targeted at producing specific job skills at the high school level and up to but not including the baccalaureate level. Career education was described as embracing all occupations and professions and including individuals of all ages whether in or out of school. (Worthington, 1972)

Former United States Commissioner of Education Sidney O. Marland introduced the career education thrust in the early 1970's and made a conscientious effort to avoid establishing a precise definition for career education. What he tried to express, he explained, was his

concern at the "continuing failure of them"--what he characterized as "the swelling numbers of young boys and girls listlessly, apparently helplessly, entering their names on the roles of the unemployed, not because they lack talent, but because the schools have not given them a decent or fair preparation for the hard, competitive business of life--including, of course adequate job skills. . . ." (Marland, 1973, p. 1)

The basic objective of career education, he explained, was to inculcate among young people an understanding of what to do with themselves when the transition to adulthood was completed. On various occasions, Marland (1973) spoke of career education "as a new educational unity," as an approach to reform in vocational education, and as a "true and complete reform of the high school." From the time he took the office of United States Commissioner in 1971, Marland argued for career education as a means for disposing of the term vocational education and as a means for providing an educational experience that either equips the individual to enter higher education or find a work experience that is satisfying and rewarding to the individual. "All education is career education, or should be," according to Marland, "and all our efforts as educators must be bent on preparing students either to become properly, usefully employed immediately upon graduation from high school or to go on to further formal education. Anything else is dangerous nonsense" (Marland, 1971, p. 3).

The Michigan State Advisory Commission on Career Education took Marland seriously and defined career education as a component for developing an educational delivery system. This system emphasized the

knowledge, skills, and attitudes people need to perform the life roles they expect or can be expected to play. It embraces all elements of education, requiring the cooperative participation of both the school and the total community. (Michigan State Advisory Commission on Career Education, 1975) In working through to this definition, the Michigan Department of Education adopted two broad processes, career development and career preparation as the components which make up career education.

Career development was that part of career education which included: (1) self awareness and assessment, (2) career awareness and exploration, (3) career decision making, and (4) career planning and placement.

These components or processes were further defined as follows:

1. Self awareness and assessment was the life-long process of discovering one's own talents and interests. The process reflected the fact that an individual's talents and interests continually change, thus a continual appraisal is needed.
2. Career awareness and exploration meant the realization brought about by the continuous learnings of the many career options available and the in-depth examination of those career options of particular interest.
3. Career decision making meant evaluating and tentatively selecting options by matching career awareness and exploration experiences with the self awareness and assessment profiles as previously defined.

4. Career planning and placement was the process of developing and implementing systematic programs for the students so that they may reach their career goals.

Career preparation represented those content areas and experiences which are currently known as the academic and vocational-technical education areas. The content is taught so that students understand the application and how the content will contribute to their personal career goals. Career preparation also provided the vehicle for learning many of the career development components. (Michigan State Advisory Commission on Career Education, 1975)

A third term sometimes used in literature discussing career education and/or vocational education was the term general education. General education, for the purposes of this investigation, was used to mean a program targeted at producing a general educational experience for those students not in a vocational program or in a program termed "college preparatory." It has been assumed that students in this program will not take any additional educational experience of a formal nature beyond high school.

When discussing attitudes toward career planning and the world of work, the term sex role stereotyping was sometimes used. This term was defined in terms of thinking concerning traditional roles for males and females in the world of work. A sex role stereotype for males would indicate it was inappropriate for a male to become a nurse, based upon the fact that this has "traditionally" been considered a role appropriate for females. Sex role stereotypes for females indicate it was

inappropriate for females to enter traditional male dominated fields such as engineering, medicine, law, pharmacy. While sex role stereotypes are changing slowly, they still have an impact upon career choices.

Satisfaction was used to mean gratification and a general sense of feeling fulfilled. In this study, satisfaction was linked to the extent to which a person feels gratified or satisfied or fulfilled in fifteen areas related to the life he or she is living.

Quality of life had to do with a person's sense of satisfaction or dissatisfaction with life, not just in one area but all of the life experiences summed together. For the purposes of this investigation, fifteen indicators developed by Flanagan and Russ-Eft (1975) were used to determine an over-all picture of an individual's perception of satisfaction with life. The term quality of life is sometimes used in the abbreviated form QOL.

This study relied upon participant perceptions of the life experience. Perception was defined in terms of the individual's awareness of feelings regarding fifteen indicators of the life experience. Researchers assumed that each participant in the study was able to make judgments about his or her life experience and could think in terms of his or her current "status" with respect to each of the fifteen indicators.

Evaluation was defined in terms of appraising the life situation. For the purposes of this study, participants were asked to evaluate each one of the fifteen components developed by Flanagan and Russ-Eft (1975) in terms of how important that item was to their quality of life and how satisfied they were with the component.

Needs assessment involved the study or evaluation of a situation to determine strengths and weaknesses and what is needed to maximize the strengths and minimize the weaknesses.

Social indicators were components that could be used to describe social conditions. Flanagan's (1975) study used a list of fifteen components that were designed to elicit responses to a variety of areas of a person's life. Campbell, Converse and Rodgers (1976) used similar indicators in their study on perceptions, evaluations, and satisfaction with the quality of life.

For the purposes of this study, values were defined as mental and emotional sets which aid people in judging the relative worth or importance of things, ideas, or events. (Christensen, 1964) They are more action oriented than beliefs. According to Williams (1961) a belief is a conviction that something is real, whereas a value is a standard of preference. In decision making theory, values are the criteria one uses for choosing among alternatives. Raths, Harmin, and Simon (1966) described a value as that which an individual has chosen, prized, and acted upon repeatedly. Thus, if a participant in the study indicated that work was important, was able to work, but chose not to work, work was viewed as a wish or desire of the participant but not a value.

To describe the Cedar Rapids, Iowa, public schools (K-12) the correct title is The Cedar Rapids Community Schools. The administrative structure of the schools is comprised of three main divisions which contributed to this study and for which the study provided useful information, the divisions being that of instructional services, business services, and operational services.

The Statistical Package for the Social Sciences, SPSS, was the name of the computer program used to process the data. (Nie, Hull, Jenkins, Steinbrenner, and Bent, 1975) Specifically, crosstabulation contingency analysis was used to examine various relationships, taken two at a time. The SPSS procedure for contingency table analysis was used. A cross-tabulation is a joint frequency distribution of cases according to two or more classificatory variables. (Nie et al., 1975) These joint frequency distributions were analyzed (as described in Chapter III) using the chi square test of significance to analyze the relationships of the variables.

Organization of the Study

This chapter has presented background information leading up to the problem, the statement of the problem and major questions pertinent to the study, the delimitations of the study, the need for the study, and the definition of terms. Chapter II presented a more complete review of relevant literature related to career preparation and planning, job satisfaction and the quality of life. Chapter III presented the design of the study. Chapter IV reported the findings with an analysis of the results, and Chapter V contained a summary of the study, conclusions reached, and recommendations.

CHAPTER II

REVIEW OF SELECTED LITERATURE

The review of selected literature was carried out in two phases. Phase one was the investigation of career preparation and planning as it pertained to males and females; and phase two was the investigation of specific studies related to high school students, their job satisfaction, and the importance of and satisfaction with indicators of the quality of life.

Career Preparation and Planning Of Young Adults

In the preparation and planning for careers it was hypothesized that differences between males and females in career choice, levels of education, amount of additional training and employment status would be found. It was also hypothesized that once a person was ready for the world of work, no matter what the position was that was to be assumed, there would be differences between males and females in terms of the percentage of males employed and the percentage of females employed. These hypotheses were based upon a review of the literature which showed sex role stereotyping and sex discrimination to be strong forces in our society and to form an underlying basis for the differences mentioned above between males and females.

Sex role stereotyping permeates the American culture and has been perpetuated by a socialization process which helps the male to develop an image of himself as strong, aggressive, and a leader. The same

process encourages females to see themselves in a role subordinate to males. (Bernard, 1974) The literature further suggested that together with the home, the educational institutions maintain a leadership role in perpetuating this socialization process. (Bernard, 1974) This process has been well instilled by the time a child reaches school and it has been reinforced through the curriculum, and in the thousands of choices that have been made in the course of the individual's school experience. By the time a person graduates from high school, the idea that men are better leaders, are brighter, more capable of building and maintaining whatever needs to be built and maintained in terms of physical structure, government, politics, and the environment has been well ingrained in the individual.. (Bernard, 1974) (Fasteau, 1974) Along with the above stereotypes in which women are seen as being more capable of loving, more caring, and in general as "inferior" to males have also been well ingrained in both males and females. (Bernard, 1974) (Filene, 1974)

It has been from a socialization process which instills stereotypes that career choice has been determined for both males and females. Positions utilizing aggressive leadership skills such as that of a medical doctor, lawyer, engineer, construction worker, and most management positions have traditionally been male strongholds. Positions of secretary, nurse, laboratory technician, clerk, teacher, social worker have traditionally been considered appropriate for females. These latter positions do not demand a superior stance of the person occupying them. Women in these positions are generally supervised by males. (Bernard, 1974)

The consequences of sex role stereotyping for both males and females has served to discourage entry into certain areas of work and study. In addition, these consequences have been expensive to society, a fact detailed by Bird (1968) in a book entitled The High Cost of Keeping Women Down. Research on the socialization process also revealed that parents at different socio-economic levels socialized their children differently and thus helped prepare their children for a similar class position or life experience. (Kohn, 1969)

Further problems confronting women entering the world of work and higher education were discrimination practices which were found in admission policies of many colleges and universities, in the awarding of scholarships and other financial aid as well. (Feldman, 1974) (Tittle, Saario, and Denker, 1975) Scheduling and counseling practices of these same institutions of higher education were also found to be discriminatory. (Cohen, 1971) (Feldman, 1974)

With sex role stereotyping which has been the outcome of a strong socialization process and with discrimination practices in the preparation for careers and the world of work, the challenge and problem for educators appeared to be one of how males and females could prepare and plan for careers for which they were best suited and most interested and would, in fact, find the most fulfillment and would enhance quality of life. The problem, as it has existed for both males and females in the 1970's and before, has been detailed in the following sections, with indications for both sexes of where the literature suggested the trends were to be found.

Career Planning and Preparation for Women

In 1974 Feldman reported findings from a study on the problems faced by women in planning careers and seeking productive employment. These 1974 findings closely paralleled the findings from a study done in 1954 by Caplow. Caplow's study dealt mainly with occupations other than professional and Feldman's compared professional men and women, but both studies involved large populations.

The findings from these two large studies were similar. The findings suggested that:

1. Women generally had discontinuous occupational careers.
2. Women were generally secondary wage earners, supplementing rather than generating family income. This has often led to the view that women should therefore be paid less than men.
3. Women tended to be less spatially mobile. Women were thus more limited in accepting employment or in moving than were men.
4. The reserve labor force of women was greater than the reserve labor force of men. Since some qualified women were more likely to be out of the labor force because of the discontinuity of their career lines, employers had less difficulty in hiring women. The supply was greater than the demand, resulting in increased competition for jobs.
5. Women were controlled by sex-specific employment laws. Although these laws existed under the guise of protecting women, Caplow (1954) maintained that they were also used to reduce the effectiveness of women as competitors for men's jobs. (Caplow, 1954, pp. 234-236)

While laws have been changed to help women, sex discrimination practices from the past have continued to be the rule rather than the exception. (Feldman, 1974) (Dorsey, 1976) Young women entering government service can still expect to make an average of \$2,000 less than young men entering government service, provided both have the same qualifications. (Dorsey, 1976) In most cases, women who have worked for any length of time in a government position can be expected to earn half of what their male counterparts earn. (Dorsey, 1976)

Problems for women in career preparation and planning stem, in part, from the socialization process. (Scanzoni and Scanzoni, 1976) Sewell and Hauser (1974) documented how socialization leads to the eventual choice of a job or career. They looked at inequality between males and females in terms of career opportunity as well as between persons of differing socio-economic origins. When socio-economic status and academic ability were held constant, women had lower probabilities of obtaining any further schooling or of attending college, graduating from college or entering graduate or professional school. (Sewell and Hauser, 1974) Women in lower socio-economic families were especially singled out as being least likely to attend college due to the fact that the values of their parents were more conservative and of a "traditional nature", one which stressed the importance of education for males and the importance of the male "breadwinner." Even though the grades and test scores of females were better through the first twelve years of school, females were still disadvantaged when it came to educational opportunities and Sewell (1971) traced this directly to parents.

Sewell's (1971) data suggested that "parents are less likely to encourage high educational aspirations among their daughters than their sons . . . and whenever family funds are short parents are more likely to spend them on the sons' education" (Sewell, 1971, p. 804). Sewell (1971) indicated that the reason for this was "gender-role socialization which emphasized domestic roles for females instead of achievement in the educational and occupational spheres" (Sewell, 1971, p. 804).

The most extensive reserach, to date, on aspirations was found to be that of Kohn (1969) in which extensive research on parental values of differing social classes was done. Kohn (1969) found that at higher socio-economic levels more than at lower levels there was great value placed upon self-direction characteristics--curiosity about how and why things happen as they do, interest in making sound judgments, self-reliance, taking responsibility, facing facts squarely, being able to work under pressure, and so on. These values were found to be more desirable for males than females, but were closely correlated to the occupational status of the wife and/or mother in the family. (Kohn, 1969) The higher the occupational status of the wife and/or mother the more likely she was to transmit autonomy values to her children, male or female. (Kohn, 1969) Lower class parents, and mothers in particular, were found to value obedience, neatness, and cleanliness as desirable. Lower class fathers indicated valuing the letter of the law and obedience. Both indicated a preference for education and/or finding a "good job" for sons rather than daughters. (Kohn, 1969)

The resurgence of the women's movement in the late sixties was thought to have made an impact on the problems related to sex role stereotyping and sex discrimination. (Lipman-Blumen, 1975) The 1972 Civil Rights Act Amendments which penalized those who discriminated based upon race or sex could be traced, in part, to the pressure applied by various women's groups. But the fact remains, that while many people say they favor equality in education and equal pay for equal work, the evidence does not suggest this has been the practice. Evidence of inequalities in hiring and in employment practices has been strong. The practices of employers in hiring affects job choice and career planning and preparation. (Feldman, 1974)

Feldman (1974) pointed out that in spite of the increase in the number of women in what have previously been considered for male dominated fields and despite the fact that salary inequalities have been narrowed, great inequalities still existed through 1974. More males were in graduate school, planning for careers viewed as traditionally male oriented. (Feldman, 1974) This situation has continued even though females constitute a majority of high school graduates earning better grades and doing better on standardized tests. (Sewell, 1974) (Coleman, 1973) And while the data that Feldman (1974) had gathered and cited suggested that there were very few differences between men and women graduate students on many basic demographic variables, sex-related inequality was still very evident. Whatever the quality of the institution of higher education, fewer women were enrolled as graduate students than men. The higher the academic degree, the less likely

women were to receive it. (Feldman, 1974) (Tittle, Saario, Denker, 1975) Although they represented slightly over half the United States' population, women have not been receiving 50 percent of the bachelor's degrees issued, let alone master's degrees or doctorates. The situation of women in graduate education was under-enrollment and greater attrition once enrolled, (Schoem, 1971) (Feldman, 1974) and lower probability of receiving a doctorate after obtaining a master's degree. (Feldman, 1974) (Tittle, Saario, Denker, 1975)

Data gathered by Tittle, Saario and Denker (1975) from school districts, state departments of education and major research and development organizations showed that women were consistently found in lower job ranks as determined by responsibility and salary, than were men. Within job categories, including those at the lower end of the rankings, women were paid less than their male counterparts. (Tittle, et al., 1975)

The findings of Tittle, Saario and Denker (1975) have been supported by recent data released by the Michigan Department of Public Instruction (1976). The report indicated that there were more male administrators in the state of Michigan than females and that males made more money than their female counterparts. (Michigan Department of Public Instruction, 1976) Further, 63 percent of the teachers in Michigan were women but only 14 percent of the administrators in Michigan's schools were women. More males held masters or doctorates than did females. (Michigan Department of Public Instruction, 1976)

According to Feldman (1974) women were also more apt to choose a position that would not require as much of them as would another position of a similar nature. In the Feldman (1974) study more women chose junior college teaching and those doing so were found to be less research oriented, had a less positive self-image, and were less involved with their disciplines, their professors, and their fellow graduate students than those opting for careers within universities or colleges.

The variables mentioned above affected both men and women, but they affected women more strongly. (Feldman, 1974) In order for a woman to aspire to a more prestigious career, she had to have those qualities associated with that career choice. If she did not, she was less apt to choose a prestigious career than her male counterpart. (Feldman, 1974) Feldman (1974) interpreted this as being a phenomenon similar to what happened to blacks who wanted to attain what the white, middle or upper-middle class man had attained. The phenomenon was one of having to become twice as good as the white man or to be "super nigger." (Feldman, 1974) One example given of this phenomenon was the number of women aspiring university careers who, in order to qualify for the position, had to be more qualified than their male counterparts. (Feldman, 1974)

Another problem for women in career planning and preparation was found to be that of job opportunities. Very few equalitarian fields or fields in which there are relatively few differences between the opportunities available for men and the opportunities available for women were found to exist. (Lipman-Blumen and Tickamayer, 1975)

Cohen (1971) attributed the situation a woman faced regarding career planning and placement to a subtle mixture of long standing attitudes on the part of society in general, often reinforced by actual discrimination, and the woman's own acquiescence. Cohen (1971) further stated that even talented women seemed to be affected by what could have been labeled a "climate of unexpectation." Women have regarded careers as supplementary to their destined domestic roles and thus have lowered their intellectual and professional ambitions to conform to society's image. (Cohen, 1971) (Bernard, 1974)

More important has been the fact that even when women successfully entered so-called "deviant" occupations (Safilios-Rothschild, 1972) they tended to be contained within those specialities which paid the lowest, were least prestigious, and were for various reasons considered "feminine" or compatible with feminine skills. (Lipman-Blumen and Tickameyer, 1975) Women lawyers went into real estate, trusts, and domestic relations. As doctors, women became pediatricians and psychiatrists, and as architects specialized in residential design, while female engineers entered industrial engineering. (Lipman-Blumen and Tickameyer, 1975)

Bernard (1974) pointed out that the problem facing women has been one of how sex differences were evaluated. She stated that unless this evaluation changed, some occupations would show large concentrations of women and would be low in prestige and rewards. Women who surmounted the obstacles involved in the evaluation of sex differences and discriminatory practices have done so with little support or reinforcement from any segment of higher education, with the exception of female

professionals. (Feldman, 1974) Even at elite women's colleges, counselors had been found discouraging women from applying to law, engineering, or medical schools. (Cohen, 1971) (Tittle, 1974) The evaluation of sex differences has a long standing history that has shown little change from the beginning of this century, though there has been a gradual change within the last ten years, or since 1965. (Cohen, 1971) (Feldman, 1974) (Bernard, 1974)

During the 1960's, of all women capable of going to college, only one in four did so, compared to one out of two men. (Rossi, 1964) The attrition increased at each level of graduate study. A summary of the studies on this subject concluded that: women with B.A.'s are less than half as likely as men to earn a graduate degree, despite the fact that they have better undergraduate records on the average. (Siegel, 1969) In 1968 women earned 42 percent of all bachelors' degrees and first professional degrees, 36 percent of the masters' degrees, and only 13 percent of the doctorates. (U.S. Department of Labor, 1971)

Stark (1967) studied the career patterns of graduate students enrolled in four academic disciplines at the University of California at Berkeley. Women admitted to Ph.D. programs were much less likely than their male counterparts to eventually obtain a doctorate. (Stark, 1967) When a group of Woodrow Wilson Fellows was examined and an attempt was made to predict who would obtain a doctorate (after a maximum of eight years), sex was found to be the most powerful predictor of success. (Mooney, 1968)

Once past a degree program, many women went into teaching but few were found at the college or university level and fewer still in administrative ranks. (Bernard, 1964) A 1960 study of academic women showed that only 9.4 percent of the faculty at 20 leading universities were women, and they comprised but 4.7 percent of the full professors. (Bernard, 1964) Academic women were most commonly found on the faculties of junior college, four-year public institutions (including teachers' colleges), and liberal arts colleges, rather than at what Bernard (1964) called high prestige universities. Women faculty members tended to cluster in a few fields of study--education, home economics, the health professions, and library science. (Bernard, 1964)

By the 1970's there were changes in trends regarding women in the labor market. In one sample of 33,782 college graduates, there were 11,000 women who expected to follow careers in elementary and secondary education but only 285 women who hoped to enter the combined fields of medicine, law, and engineering. (Rossi, 1972) This trend changed, however. Solomon (1973, 1974) reported that since 1950 women have received a slightly increasing proportion of the doctorates awarded in the United States (9.5 percent in 1950 to 14.4 percent in 1971). The 1973 profile of doctoral scientists and engineers in the United States showed that women received nine percent of the doctorates in science and engineering. (Centra, 1974) Percentages of women doctorates were higher within the fields of psychology (20.5 percent), the social sciences (10.9 percent) and the non-sciences (11.6 percent). Centra (1974) cited data which showed that 20 percent of the doctoral degrees

in education awarded in 1968-69 went to women (13.1 percent of the total degrees across all fields were conferred on women). Feldman (1974) presented data which showed that women received 16 percent of all earned doctorates in 1972 and 18 percent in 1973, and found that among students enrolled in doctoral degree programs, sex was a strong predictor of attainment of the degree.

Conditions for women have been changing, but the situation that existed when Cohen (1971) found that graduate schools were reluctant to admit women in the belief that they would not utilize their training as fully as men still existed in the middle 1970's to some extent according to Lipman-Blumen and Tickameyer (1975) and Bernard (1974). Solomon (1973) indicated that policies have been changing and cited data gathered from a study done by the Higher Education Research Center in Los Angeles. Using data from Stanford and UCLA, Solomon (1973) indicated that bias in admission in higher education was no longer a problem when the admission rate (admission/applicants) was used as the standard. In a later study Solomon (1974) reported data analyzed by schools classified on quality. In the top ranked schools, however, a larger percentage of applications from men were accepted. (Solomon, 1974)

In two other studies, completed during the middle seventies on women and careers and mental health, the findings for the research from the sixties and earlier regarding the discrimination against women were supported. (Flanagan, 1975) (Guttentag and Salasin, 1975)

In August, 1975, at the Aspen Conference on Women, Guttentag and Salasin reported some of the findings from a national study they did on

Women, Men and Mental Health. Their report included data involving over 100,000 women and 70,000 men. (Guttentag and Salasin, 1975) In this report they concluded that men have more stereotyped ideas about the work and family role requirements for women than do women for themselves. The researchers further maintained that men were much more likely to enforce these stereotyped views. The stereotyped views held by both men and women, and the readiness of the males to enforce their views have contributed heavily to problems faced by women in career planning.

The findings from the national sample done by Guttentag and Salasin (1975) were indicative of the problems faced by women in the world of work. The findings have been documented through the 1970's. (Brandwein, Brown, Fox, 1974) (Bernard, 1975) A review of the literature on career planning and the world of work indicated that even during the early 1970's, a woman could still expect to face an uphill battle in finding employment in positions other than those traditionally stereotyped as being for "women only." (Bernard, 1974) (Feldman, 1974) A study by Gross (1968) revealed that the number of women entering the job market increased throughout this century. In 1900 there were 4.5 men per each woman in the total labor force. As of 1968 the percentage of women in the job market has been equal to that of males. Along with this increase of women in the labor force, sexual segregation has remained strong and had not changed through the 1960's. The number of women in managerial and professional positions remained constant up

until the 1970's, despite the increases in numbers of women completing graduate degrees and entering the job market with advanced preparation. (Knudsen, 1969)

For women who were in college, a number of studies showed they could expect to be guided toward "female typed" positions. (Cless, 1964) A finding from the Cless (1964) study was that higher education in the United States was designed primarily for white upper and middle class men. In a 1976 review of the literature on sex-role stereotyping and the effects on women of this stereotyping, Lipman-Blumen and Tickameyer (1975) found that women were still being kept out of high status positions in nearly all fields. Tittle (1974) attributed this to guidance counselors and cited one example as the way in which guidance counselors counsel women regarding career choice. Specifically, a problem was cited in the use of the Kuder DD, Occupational Interest Survey which many of these counselors and psychologists were found to be using. (Tittle, 1974) The interpretive leaflet told a woman:

In addition to scores under the headings marked WOMEN, women will have scores under the headings marked MEN in selected occupations and college majors where men predominate but opportunities for women are increasing. (Kuder, 1970, p. 1)

An examination of the Occupational Scales showed that there were 77 for men, and a total of 57 for women (including 20 on the men's scales). However, close inspection showed that only 16 scales overlapped (i.e. only 16 categories were identically stated occupations on both men's and women's scales). (Tittle, 1974)

The example given in the interpretive leaflet accompanying the Kuder was for "Maxine Faulkner" who was highest on the men's occupational scales in the occupations of optometrist, pediatrician, physician, psychiatrist, dentist, and pharmacist. However, on the college major scales for men, Maxine could not show an interest in the major of premedicine, pharmacy, or dentistry, since scores for women were not reported for those majors. On the women's occupational scales, she was presented a spectrum of occupations typically suggested to women: dietitian, nurse, dental assistant, physical therapist, etc. Maxine was being channeled into the status quo. Major professions with power and prestige in society had been omitted for her in the college major scales. Law, business management, marketing, finance, government, and premedical, dentistry, and pharmacy were closed options for Maxine. (Tittle, 1974)

The problems faced by women entering the world of work may be more complicated than simply having doors closed to them or being counseled into or out of a specific field. Katz (1970) did a study on the educational and occupational aspirations of adult women and found that the career choices of the women in the study, the undergraduate women from San Jose City College and Stanford University, were similar for both groups and were oriented toward occupational roles that were considered "traditional" for females. There was a high valuation on occupational life. The women in the Katz study were oriented toward the family and with a greater majority indicating an interest in being an elementary or

secondary teacher than in any other profession. (Katz, 1970) Table 2.1 displayed the data indicating the career plans of these women in the Katz study (1970).

Katz (1970) further found that in spite of the great increase in intellectual sophistication and performance during college and in spite of the push of an environment that seemed to stress professional achievement as almost the only human value, the responses of women in each of the four college years remained stable regarding their future plans. He attributed this to the fact that it may have been the pull of social values and norms outweighing the incentive of the college environment. (Katz, 1970) Such an inference received further support from the fact that the men were in complete harmony with the women on the women's occupational plans--a harmony that was not obtained when the two sexes looked at other aspects of the female role. Katz (1970) also concluded, for the data gathered in the two studies that there was seemingly no change in occupational aspirations over two generations, inspite of the many changes in behavior and attitudes that have taken place. (Katz, 1968 and 1970) About the same percentages of students expected to concentrate on being housewives ten years after graduation as were found in their mothers' generation. (Katz, 1970) Fifty-four percent of the Stanford women seniors in 1965 planned on being housewives ten years later. (Katz, 1968) They listed housewife as the occupation of 62 percent of their mothers. (Katz, 1968)

Katz (1970) attributed the fact that women plan to enter careers oriented toward occupations that are traditionally associated with

Table 2.1

Women's Career Plans (in percent)

	Stanford (N=356)		San Jose (N=167)	
	Present Choice	Job Expected In Ten Years	Present Choice	Job Expected In Ten Years
Housewife	0	23	0	12
Elementary, Secondary School Teacher	19	21	22	26
College Teacher	5	7	2	1
Nurse, Medical or Dental Technician	1	1	21	18
Social Sciences, psychological counseling	8	13	5	8
Sales person, secretary, office worker	2	3	11	12
Writer, artist, editor, etc.	4	7	1	3
Other occupations	11	15	13	14
No response or don't know	50	10	25	6

Source: Katz, 1970, p. 4.

women, such as teaching, on the fact that in talking about occupations, women report themselves more often than the men as directed towards helping and working with people. Such direction had basis in several factors difficult to disentangle: upbringing, social mores, and feminine psychology being a few according to Katz (1970). The women also reported themselves as less oriented than men towards the acquisition of money and material goods; less oriented towards reaching the top. (Katz, 1970) Another finding was that the women left aggressive acquisitiveness to the men while they hoped to share equally in the fruits of male labor. (Katz, 1970)

A series of theories have been developed and researched in an attempt to explain why it is that women continue to allow themselves to function in a position inferior to males. Stein and Bailey (1973) suggested that women were best able to meet their achievement needs by seeking and remaining in occupations that were considered feminine or of low status. These researchers speculated that due to the strong negative sanctions applied to women who attempt to enter a career considered appropriate for a male, such as engineering or medicine, a women would not choose such a career. A choice of a feminine career was thought to reduce both internally generated conflict and externally imposed negative feedback. (Stein and Bailey, 1973) They found that females tended to find public accomplishment, particularly in competitive situations, threatening. The reaction to such conflict was to reduce the effort or to conceal any accomplishment, particularly from male peers. A much earlier study by Weiss (1961) supported these findings.

A more controversial study by Horner (1972) reported that women often tell males they received a lower grade than they actually attained, indicating that Weiss's (1961) and Stein and Bailey's (1973) findings could be supported from another viewpoint.

O'Leary (1974) stated that fear of failure may be a factor in a woman's apparent reluctance to aspire to a high level position. For O'Leary (1974), fear of failure resulted in an approach-avoidance conflict in response to the achievement of goals. According to Atkinson (1957) the motive to avoid failure was considered a disposition to avoid failure and/or a capacity for experiencing shame and humiliation as a consequence of failure.

Kagan and Moss (1962) described the genesis of fear of failure as possibly having roots in the same socialization process that developed traditional images of what it meant to be male and/or female. O'Leary (1974) found that as a male grows to maturity he was socialized to develop appropriate coping mechanisms for dealing with failure. The female, not expected to compete in similar situations, often lacked such crucial training. Thus, it was not surprising that Kagan and Moss (1962) found significant correlation between fear of failure in childhood and adulthood among female but not among male subjects. Kagan (1972) also found that males were socialized for their roles more strongly than were females for their roles. Mahone (1960) found that high fear of failure individuals were more likely to select cautiously low or unrealistically high career goals. These individuals were less likely to select career goals best suited to their abilities. However,

although unrealistically high goals were selected by some of the individuals in the study, Burnstein (1963), Littig (1963), and Rim (1963) have all found that the level of aspiration was lower for high fear of success individuals. High fear of failure individuals manifested greater withdrawal tendencies and, as Heckhausen (1967) stated, were content with the simpler occupations if it meant avoiding uncertainties and exertions of a more demanding career. These high fear of success people were generally women. (Makowsky, 1972) (O'Leary, 1974)

O'Leary (1974) indicated that women suffer more from lack of confidence and self-esteem, for a variety of reasons, and that because of this it was plausible to suggest that they probably have been more vulnerable to failure fears which has in turn probably affected their selection of achievement goal contests. Hollander (1972) also made a similar finding, indicating that sex differences have an effect upon self esteem.

Horner (1970), supported by Stein and Bailey (1973) and O'Leary (1974), determined that the motive to avoid success was the mediating factor in achievement context choice. Success was positively linked with fear of social rejection and doubts about one's femininity and normality. (Horner, 1970) According to her formulation, success in a traditionally masculine context may have a negative valence for women. She characterized the women in her study as feeling anxious, guilty, unfeminine and selfish about their successes. (Horner, 1970) Maccoby (1963) made a similar observation, suggesting that the professional women "pays a price in anxiety" for diverging from the conventional

female role. In both formulations, femininity and success in traditionally male achievement contexts were regarded as conflicting, if not mutually exclusive goals. Horner (1970) stated that "a whole society has been unable to reconcile personal ambitions, accomplishments and success with femininity. The more successful or independent a woman becomes, the more afraid society is that she has lost her femininity and therefore, must be a failure as a wife and mother" (Horner, 1970, p. 55). Baruch (1966) noticed that there was a decline in achievement motivation in women during their twenties and early thirties when the affiliative concerns of marriage and child rearing were most salient.

In addition to the study by Horner (1972) where some women were found likely to perform less well in a mixed sex competitive situation than in a noncompetitive situation, Schwenn (1971) found that women scoring low in the motive to avoid success exhibited a greater degree of willingness to report high grades to a male friend than did high scoring women. She also found that women high in the motive to avoid success changed their career aspirations toward a more traditionally feminine direction during their college years more often than women in the low motive to avoid success. Similar findings were also made by Baruch (1967).

Several studies examining the personality characteristics of female Ph.D.'s (presumably low in the motive to avoid success) have failed to reveal qualities indicative of neuroticism and anxiety to an extent greater than those found in more traditionally oriented female populations. (Bachtold and Werner, 1971) (O'Leary and Braun, 1972)

Further, choice of a traditionally masculine role does not necessarily spawn fear of social rejection on the part of achieving women. (O'Leary, 1974) In a study reported by Hawley (1972) women reported that the "significant men in their lives" had a model of femininity not unlike the one they themselves adhered to.

The findings of Makowsky (1972) lend support to the predictions derived from Horner's (1970) theory and findings. However, the efficacy of fantasy-based measures of the motive to avoid success are subject to the same criticisms as attempts to utilize projective techniques to assess the motive to achieve. There has been concern expressed by several investigators regarding the reliability of Horner's (1970) scoring system, the ambiguity surrounding the concept of fear of success, and uncertainty regarding variables captured in the fear of success measure, as well as the difficulty in obtaining correlations between assessed motives to avoid success and the suppression of achievement-directed behavior. (Tresemer, 1973) The question of validity remains open and worth considering.

The literature on women in the world of work has not been as optimistic as some writers and researchers had hoped. (Bernard, 1975) (Feldman, 1974) (Lipman-Blumen, 1975) A slight change in the trend regarding women in the work force was reported by the U.S. Department of Labor 1977. This trend, covering the year 1976, showed a larger percentage of women in the work force than at any previous time in United States history. Close to 49 percent of the work force is made up of women. Further, women have been slowly finding their way into higher

paying positions and into positions of increased responsibility. The report concludes with the opinion that women can no longer be expected to assume positions of a subservient nature to men simply because they are women. No longer are the traditions of the past realistic for the women entering the work force in 1977. (U.S. Department of Labor, 1977)

Career Planning and Preparation for Males

For males, the ability to compete and produce has been closely identified with the essence of what it means to be a male. (Blau and Duncan, 1967) (Fasteau, 1974) The individual man proved his worth in life, not by a single triumph or victory or achievement--for there was no end, no agreed upon goal, but moment by moment, his value rising and falling depending on the reception accorded his efforts by the market. The emphasis was not on having risen, but on rising. Wills (1970) noted the titles of the Horatio Alger stories (Making His Way, Helping Himself, Bound to Rise, Struggling Upward) and pointed out: "The Horatio Alger hero did not aim at success but at the succeeding--that is, a character formation and self improvement" (Wills, 1970, pp. 237-238).

The masculine stereotype reflected in these myths has been the major vehicle for transmitting the obsession with proving one's self through competition from one generation to the next. A man's attention has been directed toward developing and demonstrating in work those traits required for masculine self-esteem, rather than on the work as a means of fulfillment. (Fasteau, 1974) Fasteau (1974) further described

the stereotype of "real men" as one of a domineering and aggressive person whose traits could only be demonstrated through competition. (Fasteau, 1974)

Several studies tied work and attitudes toward work to socio-economic background. (Kohn, 1969) (Sewell and Hauser, 1974) In a study of men and work, Kohn (1969) found that at higher socio-economic levels more than at lower levels there was great value placed upon self-direction characteristics. Lower class men were more likely to emphasize a rigid conservatism which opposed questioning old, established ways. They were more likely to resist innovation and change and were unable to tolerate nonconformity to the dictates of authority. (Kohn, 1969)

Aberle and Naegele (1952), in a study of the attitudes of fathers toward the occupational choice of their sons, found that certain jobs were thought to be more "masculine" than others. Middle-income fathers rejected academic work as a possible career for their sons, and considered the academic role as one which exemplified inappropriate masculine behavior. Sons who were perceived as shy, irresponsible, bookish, or needing a woman to care for them, were thought to be best suited for academic roles. (Aberle and Naegele, 1952)

Studies on human growth reviewed for this study suggested that males grew up thinking of themselves as more aggressive and competitive than females through a socialization process. (Kagan and Moss, 1962) This socialization process was inculcated by "significant others," institutional and organization contexts, and mass media. Some socialization takes place without anyone realizing what is happening. Infants

have been treated differently according to sex from the beginning of their life. Another example is the way in which babies are talked to, baby girls being talked to more often and cuddled more, jostled less and handled and talked to more tenderly. Boys are initially handled more often and more roughly than girls, but the amount of handling diminishes with age, as clinging or showing tears is discouraged. (Brown, 1957) (Lewis, 1972)

Eshleman (1974) also cited a variety of studies which indicate that sex-role socialization is learned at an early age. He maintained that there is little doubt that children learn the appropriate roles for their sex; females learning to be dependent on others, to be house-keepers, and to perceive males as leaders and wage earners. These sex role distinctions may be changing and there is some evidence to suggest that they have been changing, and that the women's movement may have helped males as well as females. (Lipman-Blumen and Tickameyer, 1975) (Campbell, Converse and Rodgers, 1976) Guttentag and Salasin (1975), however, feel that the data do not suggest significant shifts in the thinking of either males or females regarding role concepts. Their findings suggest that males have even stronger views about what it means to be masculine and/or feminine than do females. The views include seeing the male as aggressive, independent, not at all emotional, one who hides emotions, very objective, and not at all easily influenced by other people. Further, he is one who is very dominant, who likes math and science, who is not at all excitable in a minor crisis, who is very active, very competitive, very logical, very worldly, very skilled in

business, very direct, one who knows the way of the world, one whose feelings are not easily hurt, very adventurous, one who can make decisions easily, never cries, almost always acts as a leader, very self-confident, not at all uncomfortable about being aggressive, very ambitious, and easily able to separate feelings from ideas. (Broverman, 1972) From these findings Fasteau (1974) built a theory in which he maintained that work was the main proving ground of masculinity.

Through his work a male could be that aggressive person he was supposed to be and could act out behaviors appropriate for a male. He could have his sense of masculinity reinforced. Fasteau (1974) maintained that all the male "traits, not just competitiveness," were thought to have to be displayed in a man's work. Toughness was valued often as an end in itself, without real consideration of whether or not it produced desired results. Men were found to plan for careers that allowed them to prove their masculinity. Positions of management or power have been found to allow men to display their "traits" and once in these positions, tests are made to be sure a man could "make it." (Fasteau, 1974) Fasteau (1974) calls these tests the cult of toughness. This cult has been seen in the initiation rites of the professions and in some businesses. Pledgees have been put through the ordeal of working incredibly long hours. Hospital interns have been worked around the clock. Architecture students have been given design problems that can't be completed by the time they are due unless the team worked through the night. (Bird, 1972) Law firms, especially the large corporations which could afford it, have been legendary for giving young associates impossible and often

phony deadlines and for making them draft long complicated documents from scratch "for the experience," instead of using others as models. Fasteau (1974) reported that all first presentations or reports by new managers were ripped to shreds regardless of the actual quality.

These initiation rites also reinforce other elements of the "masculine" work style. One of these is excessive belief in and reliance on hierarchy. The strenuous rites of passage establish that the young will do the bidding of the old, without rhyme or reason; and they create, through the "I-had-to-suffer-so-you-will-too" dynamic, the desire to perpetuate the hierarchy. Being somebody's boss, having power to tell him what to do--especially things he wouldn't do otherwise--has enormous psychological rewards in a system where competition is the name of the game. (Fasteau, 1974)

Argyris (1966) studied the behavior of 165 top executives in six companies of different size and function, ranging from a research and development organization with 150 employees to an electronics firm with 40,000 workers. In all, 265 decision making meetings were studied by direct observation, analysis of tape recordings made during the meetings, and subsequent private interviews were held with participants. He found the same competitiveness in virtually all the meetings studied. In some it was openly displayed. In most it was covert, with an apparent openness and concern for the ideas of others masking an effort to gather information in order to discredit another person. Most executives, like those described by Fasteau (1974) believed that unilateral direction and

coercion was the most effective way of obtaining the cooperativeness of the people in the firm. Argyris's (1966) findings revealed that the managers viewed all emotional and interpersonal discussions as "irrelevant, immature, having nothing to do with work," and they would tell the members to "get back to the facts" or "keep personalities out of this" (Argyris, 1966, p. 84).

Fasteau (1974) maintained that a man's need "to have everything rationalized," to ignore personalities, is also a substantial disadvantage in negotiation. Women, he found, were more alert to non-verbal cues and were willing to rely on intuition, to trust their feelings about a person or situation, and for that reason generally did better at reading people.

Bardwick (1971) indicated that men managed to stave off feelings of incompleteness by creating new challenges and involvement in work which allowed them to avoid, at least for a period of time, the recognition of aging and thus keep alive the promise of eventual self-actualization through work. Fasteau (1974) indicated that many of these successful men moved into the same pattern as men who were not successful. There was the same tendency to turn to extramarital affairs; greater involvement in their local communities and other activities involving caring and social contact with others, a new interest in their children; on the job, a greater interest in associates and employees as people, the hobbies and clubs that other men in their circumstances took up or joined. (Fasteau, 1974)

While Fasteau (1974) wrote about a condition using research to support his views, Yankelovich (1974) supported the theories of Fasteau (1974) with research of his own. Yankelovich (1974) indicated that conditions for males were beginning to change. Some of the formerly male dominated prestige professions were beginning to lose their luster by the time of the Yankelovich (1974) study, especially where achieving occupational success involved sacrifice. Yankelovich (1974), Campbell, Converse and Rodgers (1976), government studies, and other smaller studies have substantiated the fact that material possessions have lost some of the connotations of success. The literature revealed a new thrust for self-fulfillment, not only for women, but for men as well. (Liu, 1973) (Yankelovich, 1974) (Campbell, Converse and Rodgers, 1976) The emphasis has become one of discovering the self and its unrealized potential. Yankelovich (1974) attributes changes in attitude and behavior directly to cultural trends. Table 2.2 displays the data status of attitudes toward work in the 1960's and the changes that Yankelovich (1974) feels will take place during the 1970's.

The evidence strongly suggests that Yankelovich's predictions have become fact. Further, in a recent study reported in Psychology Today, 28,000 readers responded to a questionnaire in which they were asked to define and report their views on masculinity. Tavris (1977) in reporting the findings of the survey, indicated that "today there are as many styles of masculinity as a man could want" (Tavris, 1977, p. 82). The problem is that the "macho frontiersman is well on his way out as the model of the perfect American man" (Tavris, 1977, p. 34), but this model

Table 2.2

Future Impact of Cultural Trends on the Work Ethic

<u>Work Ethic in 1960</u>	<u>Changes in Work Ethic in the 1970's</u>
1. Paid work means autonomy.	1. Meaning will intensify and spread, especially to women.
2. The working male is the good provider.	2. Slow erosion of this meaning with unknown but far-reaching consequences.
3. All work has inherent dignity.	3. Only "meaningful" work has inherent dignity.
4. Hard work always pays off.	4. Rapid erosion of this meaning, because of the changing nature of payoff.

Source: Yankelovich, 1974, p. 47.

is not gone yet. The participants in the study indicated trouble in defining the new male, with males having more of a problem than females. Both groups thought that some of the traditional stereotypes of what it meant to be a male were no longer important, with aggressiveness being mentioned specifically. (Tavris, 1977)

Studies Bearing Directly Upon Satisfaction With Life
And The Importance of and Satisfaction With
Quality of Life

In 1973 the Midwest Research Institute in Kansas City, Missouri, undertook a study of quality of life in the United States. (Liu, 1973) Writing the preface for the document, McKelvey summed up the problem regarding measurement of quality of life as being one of finding those indicators which will adequately reflect the overall "health" of the nation and its citizens' well being. (Liu, 1973) The report of the Midwest Research Institute is based upon data gathered in 1970. Indicators used to measure a general sense of well-being were individual status, individual equality, living conditions, agriculture, technology, economic status, education, wealth and welfare and state and local government. This was one of the first major reports that talked about quality of life as having to do with something more than material wealth.

Another study of similar concern was one completed by Campbell, Converse and Rodgers (1976) under a grant from the Russell Sage Foundation. The thrust of this study was to determine more about quality of life assessing a variety of life experiences. The researchers were

concerned with how Americans defined the quality of their life experiences, as expressed in their perceptions, evaluations, and satisfactions. The indicators used to measure QOL were from a broad range of areas. Attempts were made to assess more than an immediate feeling such as happiness over the day's events. Instead attempts were made to determine if a dissatisfaction with life was prevalent. The general perception of the life experience expressed by the participants in this study was one of satisfaction with the quality of life. (Campbell, Converse and Rodgers, 1976)

In 1975 Flanagan completed a study on 1,000 adults who at the age of 15 had been part of the Project Talent Study (Flanagan and Cooley, 1966) and who in 1975 were 30 years old. The effort was to assess their satisfaction with fifteen indicators of quality of life and to determine importance of each of the indicators in the life of the individual. This study, like others related to quality of life, focused on psychological well-being (Bradburn, 1969) rather than on material wealth and physical comforts as so many studies related to quality of life had done prior to the 1970's.

The findings from these and other studies of a similar nature suggested that young people were happier or more satisfied with their lives than older people. (Campbell, Converse and Rodgers, 1976) At least, young people tended to report themselves as being more satisfied with their lives than did people over the age of 30. In a look at the quality of life of males and females, Gove (1972) found that women reported more emotional difficulties than men and were seen for in- and

out-patient psychotherapy more than men. His explanation for why this phenomenon takes place was directly linked to marital status. Gove (1972) found that married women were more likely than married men to become emotionally ill and that single men were somewhat more likely than single women to become disturbed. Guttentag and Salasin (1975) substantiated these findings in their massive study on men and women and their mental health. They found that women were less happy or satisfied with their lives than men, on the whole but that the happiest or most satisfied of any age group were single women in career positions. Young divorced women with young children and divorced males of any age were the unhappiest people. (Guttentag and Salasin, 1975)

In order to bring about a better life, one in which individuals may find themselves using their potential to its fullest, Boulding (1967) suggested expecting the unexpected. Researchers, in an effort to partially anticipate the unexpected, have been looking at trends and out of this examination have come several longitudinal studies examining the role of education in contributing to the quality of life of the individual. The question of how it is that one person can lead a satisfying life and what contribution the educational experience can make to this condition has been studied. Answers have been sought to how it is that the youth of the nation can be helped to develop into adults who experience a satisfying life. Out of these studies have come efforts directed at helping both males and females function fully in the world of work as well as adult members of the community. For some educators like Goodlad (1975), education has a contribution to make and can make a constructive,

positive difference in the lives of those associated with the schools and in turn, to the society of which the schools are a part. (Goodlad, 1975)

The main studies which shed light on education's contribution to quality of life were described in the section that follows. Each study was summarized in terms of findings pertinent to quality of life.

Project Talent

Bearing directly upon the findings regarding males and females in general are the findings from the massive Project Talent longitudinal study (1960). Project Talent was conceived and organized in the late fifties under the leadership of John C. Flanagan. The study was born out of the need for a longitudinal study designed to provide information about secondary students in American high schools. A group of behavioral scientists prepared preliminary proposals to study a half of a million high school students. The project goals were (and continued to be): (1) to develop an inventory of human resources, (2) to develop a set of standards for educational psychological measurement, (3) to prepare a comprehensive counseling guide indicating the patterns of aptitude and ability which are predictive of success and satisfaction in various careers, and (4) to provide a better understanding of the educational experiences which prepare students for their lifework. (Flanagan and Cooley, 1966)

In 1960 a probability sample of approximately five per cent of the high schools in this country was drawn. The 400,000 students in grades 9 through 12 attending those randomly selected schools were administered

educational-psychological tests and inventories over two days. Those instruments were specially constructed for the project. Included were measures of specialized aptitudes and general ability, interests, and temperament, and almost 400 items on students' activities, home background, and plans for the future. Over 1,000 test scores and items have been available on computer tape for each student. (Flanagan and Cooley, 1966)

Project Talent had as its objectives:

1. To survey available talent--to undertake an inventory or census of the potential manpower pool that would provide a sound basis for planning national policies and meeting the country's needs in key professional fields such as science, medicine, and engineering, and in important nonprofessional fields.
2. To identify interests, aptitudes, and background factors--to investigate the interrelationships of patterns of aptitudes motivational factors prevailing in our secondary-school population in the U.S.
3. To determine effects of lack of interest and motivation--to study the extent to which lack of interest on the part of some of the talented young people leads them away from undertaking the further training that might have qualified them for careers in highly specialized fields.
4. To identify factors affecting vocational choice--to investigate the dynamics of personal decisions and environmental factors that ultimately determine the individual's choice of occupation or career.

5. To identify predictors of creativity and productivity--to study the patterns of aptitude, interest, and motivation that underlie creativity and productivity in several different fields.

6. To determine the effectiveness of various types of educational experience--to study the effectiveness of various types of educational experience in producing learning and developing special talent.

7. To study procedures for realizing individual potential--to investigate procedures for assisting each individual to make full use of his or her potential abilities. (Flanagan, Davis, Bailey, Goldberg, Neyman, Orr, Shaycraft, 1962)

The data collected revealed, thus far, that the plans made in high school related to career or vocation are unrealistic and unstable. The 1966 Project Talent report called for the schools to develop a better program for helping the student to understand both him or her self and the various roles for which he or she should be prepared. (Flanagan and Cooley, 1966)

Of more practical help from the entire Project Talent have been the follow-up studies which are primarily concerned with various aspects of career development of American youth. Project Talent reports have given information regarding the nature of students' employment and job satisfaction, the nature and extent of their post-high school education, and their long-range career plans. These studies provided useful comparisons and indicated that the high schools were lacking in helping the youth of the country to realistically prepare for the work and life experience that would greet them upon graduation. (Flanagan and Cooley, 1966)

Project Talent also measured certain traits of the students, followed the students through their life, and relationships were sought between the traits exhibited by the students in high school and their subsequent vocational behavior. The criterion behavior included their career plans and decisions, job satisfactions and successes.

The design of Project Talent was such that it made improvements over most previous applications of a trait and factor approach. The initial measurements were made on high school youth, not on working adults in certain positions. In this way, Project Talent was able to tell what high school students were like who later became successful and satisfied workers in a particular area. Another improvement on the traditional trait and factor approach was that with the aid of multivariate analysis they were able to consider patterns that occurred in the data rather than looking at one trait at a time. The most crucial dimension of the findings, however, remained the data related to career planning and job satisfaction.

National Study on the High School Class of 1972

In another study of high school students, Freeberg and Rock (1975) analyzed data from the National Study on the High School Class of 1972 in which they re-evaluated the base year survey of this class in terms of vocational aspirations and for their educational and vocational future and the influences which had a role in shaping the decisions of the students. This was done by the use of a large national sample of males and females, along with an analysis that incorporated both descriptive and causal approaches. Specific priorities of student choice and

the potential influences which stemmed from family, peers, school, and skill-achievements that shaped educational and vocational decisions were described. In addition, assessment was made of the relative and causal modes which were likely to exercise an impact. It was hoped that this study would be of value in shaping high school curricula, individualizing courses and programs, and aid in guiding students along more effective educational paths through an understanding of the consequences of their decisions. For these reasons, a major focus of the analysis of the massive amounts of data was on identifying the comparative differences between plans and aspirations of students enrolled in differing curricula and unique influences that impinge on such decisions for members of each group.

The assessment sought to reveal the views of the students regarding their education and vocational future and to improve the understanding of how personal, social and educational influences might act to shape post high school decisions. The attempt to explain the complex role of family, personal, peer and school characteristics, made the use of different analytical approaches necessary. The authors first defined specific educational and vocational objectives perceived by the student, the relative value or priority that the student assigned to each, and how the student claimed to arrive at the decision. They also determined how the study was likely to apply these priorities in shaping decisions as adults.

From the results obtained it was apparent that aspirations and plans of females and males in differing curriculum groups (academic,

general and vocational) conformed to logically expected response patterns that were commensurate with their educational backgrounds and social backgrounds. The pattern that the academic student fit was one of striving for the highest levels of educational and occupational attainment, compared to members of other curriculum groups; while general curriculum students had lower expectations than those enrolled in the vocational curriculum. The academic group made up the college-goers who arrived at that choice very early in their educational career, and hoped for and expected higher status, higher paying (i.e. professional-managerial) occupational positions. The level of education aspirations that academic students held for themselves was much closer to their level of educational plans or intentions than those of their counterparts--a result Freeberg and Rock (1975) speculated might possibly represent a greater degree of "reality" in matching future wishes to expected accomplishments.

The perceptions of the academic students regarding their occupational future were not as close as the vocational curriculum students, who despite seeing themselves in lower social status occupations after high school, tended to hold job desires more in line with job expectations than those in other curriculum programs.

In describing how they arrived at their educational and vocational decision, students indicated that their own initiative served as the primary basis for shaping those plans and aspirations, while parents and friends constituted the dominant external sources of such influence (in that order) and school personnel ranked far behind in any perceived

impact. Academic curriculum students and females are the ones who trust more to their own initiative and to those other--personal or external sources. They accounted for these findings which were descriptive and supportive of conclusions drawn, inferentially, from correlational studies that have indicated a more central role for parents and peers than for the school or its personnel. In the case of peers, that influence was said to stem from the students' having friends whose dominant post-high school plans were perceived as largely similar to their own.

Specific types of future activities that students saw for themselves and their reasons for those decisions reflected some of the sharpest sex and curriculum distinctions found. One of the most striking results was in the stress the academic students placed on the loftier "meaning" of any work they might seek, in the form of its importance and interest as well as its creative and socially beneficial character. By contrast, nonacademic students stressed the more "mundane" or immediately tangible benefits of a friendly and sociable work environment, steadiness of work and an opportunity to make money. Whatever their curriculum group membership, they all tended to agree on the primacy of job success in their lives and in wanting decision-making freedom in the jobs they would finally obtain. Females showed a greater social orientation than males in viewing the work environment (e.g. jobs with greater social utility and the opportunity to help people were more important to females) and in their longer-term lifetime ambitions which emphasized marriage and family as opposed to male emphasis on occupational success

and security. Males were less discrepant in their level of occupational aspirations and plans, whereas females planned for comparatively lower occupational status positions than they aspired to.

Within those general findings, however, there were a number of sex by curriculum interaction effects that served as important qualifiers to the overall conclusions. For example, the greater importance placed on marriage and family by females was derived almost entirely from those enrolled in the general and vocational curricula rather than from those females enrolled in the academic program. Similarly, the sharpest difference between males and females, with regard to the occupational aspirations and plans discrepancy, occurred for the academic group, with academic females most discrepant in this respect (i.e. likely to wish for higher status jobs than they planned to obtain).

Cooperative Institutional Research Study on the College Class of 1979

A third study done involving students was a profile assembled on the college class of 1979 (those who were freshmen in 1975). This study indicated that the college freshmen in this study (which represented the characteristics of a total student population of 1.67 million freshmen) felt their high school preparation left much to be desired. Fewer than half could say they were well-schooled in any of five major subject areas--mathematics, reading, and composition, foreign languages, science and social sciences. Barely one in five was satisfied with training in art and music and only 17 percent were confident in their vocational skills. Further, eight out of ten said they came to college without good study habits. (Cooperative Institutional Research Program, 1976)

The freshmen stated that they thought women deserved the same salary and employment opportunities as men. Of the 186,406 students surveyed, nine students in ten agreed to this statement which is an increase of ten percent since 1970. Only 28 percent of the 1975 freshmen said a woman's place was in the home while 47 percent made the same indication in 1970 and 30 percent in 1974.

The most important finding from this study of the college class of 1979 was that more young women are pursuing traditionally masculine careers than ever before. One woman in six was planning a career in business, engineering, law, or medicine, a two percent increase over 1974 and nearly a threefold jump since 1966. During the same ten year period, the percentage of freshmen men headed in the same direction had dropped from almost 50 percent to just under 40 percent. (Cooperative Institutional Research Program, 1976)

Project Talent 1975 Follow-up Study

To these data Flanagan (1975) added information from a sample of 1,000 thirty-year olds who were part of the Project Talent Study. Data were collected regarding early school experiences, relationships with parents and siblings, health factors, adolescent development, subsequent school, college, and special training experiences, informal learning, marital relations and children, occupational histories, material well-being, intellectual, personal and social development, and leisure activities and interests. This was accomplished by means of a three-hour interview with each of the 1,000 participants. The members of the sample were difficult to find. Although Project Talent had worked hard

at keeping track of members of the group, there were current addresses available for less than half the group. This was partly attributable to the addition of the 15 year olds who were below the ninth grade in 1960. Participants were located in Japan, the Middle East, two on Guam, one on Hudson's Bay, and others in Europe, Africa, South America and Southeast Asia. (Flanagan, 1975)

Local coordinators arranged for interviewers to be trained using the manuals provided and to complete the interviews. An important feature of the interviews was to obtain the participant's judgment as to the importance of each of 15 aspects of quality of life. Each participant also reported on the extent to which he was satisfied with his current status on these 15 aspects of life activities. (The development of the 15 incidents is discussed in Chapter III of this study).

Both the men and women in this sample indicated that the most important component to their quality of life was health. More than 98 percent of them indicated that physical and mental health was either important or very important to their quality of life. The second most important dimension to both groups was close relationship with their spouse. Well over 90 percent in both groups indicated this to be important or very important to them. The third most important dimension for the males was their job with 91 percent indicating that this was important or very important to them. The women's responses were very similar with 88 percent reporting their work in the home or on the job as being important or very important to them. The third most important dimension of quality of life for the women was being a parent and having

and raising children. This was rated as important or very important by 92 percent of the women and 82 percent of the men. (Flanagan, 1975)

The next most important aspect of quality of life to both the men and women was maturity and personal understanding. Ninety-two percent of the women and 87 percent of the men indicated that this was important or very important to them.

The sixth most important item for men was developing and using your mind through learning. Eighty-six percent of the men and 84 percent of the women indicated this was important or very important to them. Each of these six items was reported to be very important to their quality of life by more than 50 percent of both the men and women. Only one additional item was reported as very important to more than 50 percent of the women. This was relationships with parents, siblings, and other relatives. A total of 87 percent of the women reported this dimension as either important or very important to them while only 65 percent of the men reported this was important or very important to their quality of life.

Having material comforts such as a good home, good food, and security for the future was important or very important to 80 percent of the men and 73 percent of the women. This group of men and women ranked material comforts in a middle position on the list of 15 items with respect to its importance to quality of life. Also in this middle group in importance to these men and women was having close friends. This was slightly more important to the women with 80 percent indicating that this was important or very important to them, and 72 percent of the men indicating this level of importance.

The next item in importance to these men and women was helping others through a church, club, or volunteer group with 73 percent of the women and 60 percent of the men indicating it is important or very important to them. The next four items were definitely less important to the quality of life of both the men and women in this national sample. These categories included passive recreation such as reading or listening to music; active recreation; expressing oneself in a creative manner; and socializing. Each of these was regarded as important or very important by about 50 percent of both the men and women with active recreation reported as little more important to the men and passive recreation and socializing given slightly more importance by the women.

The item this sample indicated had the least importance to the participant's quality of life was participation in activities related to local or national government. Less than one-half of both the men and the women regarded this as important to them. The major exception to this generalization was that whereas 85 percent of the group indicated that developing their minds through learning was important or very important to them, only 55 percent were satisfied with their status in this area. Only 48 percent of the women indicated they were satisfied as compared with 62 percent of the men. Among these first nine items in terms of importance the second largest discrepancy was in relation to developing maturity and personal understanding. Whereas about 90 percent regarded this as important, only 73 percent were satisfied with their present status.

Participation in activities relating to local or national government was not only of least importance to these people, but also was the item for which they showed least satisfaction in terms of their present status, with only about 54 percent of both the men and women indicating satisfaction. To help understand why this item was rated in this way, Flanagan (1975) gave an example of a young man in the northeast part of the country who was then a farmer. When asked why participation in government was of no importance to him, he stated that all politicians were crooked. He could do nothing but vote and was very frustrated at the poor quality of local government.

Flanagan (1975) made an overall generalization that most of the people in the study were off to a good start in life and were doing well with respect to the things that were most important to them. He indicated that they would like to do better in areas of intellectual development and personal understanding and that they hoped that educational programs could be improved and modified to enable others to achieve greater satisfaction in these areas. On the basis of reviewing the factors in the development and present status of the participants, Flanagan (1975) felt it was obvious that education made an enormous positive contribution to the quality of life of nearly all of the participants.

The next generalization that he made was that there was probably not a single person in the sample whose quality of life could not have been very significantly improved if the opportunities now available to educational programs had been fully and appropriately utilized. The

major opportunities missed in the education of these young people will be the focus of further studies by Flanagan.

Flanagan (1975) described the most important unfilled need for the majority of the participants as the opportunity to learn about themselves in relation to life and career planning. They wanted to learn how their values, interests, and abilities related to possible life styles and opportunities for careers.

A second opportunity somewhat related to the first but requiring additional implementation was the much more extensive adaptation of the education program to the needs of each individual student. Specifically mentioned was an accurate measure of what the student knows in terms of what he needs to know so that time spent on material he already knows or material that he does not have the prerequisite knowledge for could be avoided. Also mentioned was a developmental concept in the classroom in the place of a competitive one. This was thought to foster an atmosphere in which all students would be winners rather than only the highly talented few. More than 30 percent reported that at times in elementary school, junior high and high school they were required to spend time on material they already knew. Similarly, in this sample, 40 percent reported that there were occasions in school that they were unable to spend enough time on a topic to learn it well.

A third opportunity to make an important contribution to these students' quality of life was through interest and motivation. Some teachers were reported by these students as being outstanding in their ability to make learning interesting to the students and in motivating them to learn.

The first two improvements cited should greatly assist teachers in their efforts to increase students' interest and motivation. Special supervisory programs could also be expected to assist teachers in their efforts to be of greater assistance to students along these lines.

The fourth opportunity for making a contribution to the quality of life of some of these young people related to those individuals who reported emotional problems in their homes that interfered with their school work and personal development. By providing a supportive home room teacher or some similar arrangement that offered continuing professional assistance and advise to the student, many of the unfortunate observed side effects of such home problems could be substantially alleviated, according to Flanagan.

Flanagan (1975) indicated that the data are incomplete but that they indicate quite clearly that education has been making a very large and important contribution to the quality of life of the nation's young people. Their reports on the factors important to their own quality of life and the extent to which their principal needs are being fulfilled definitely shows that education has helped them and that they value it highly. The analysis of these reports also indicated that there are two main areas in which there is a large discrepancy between needs and their present status. These are, first, developing and using their minds through learning and improved understanding; and, second, developing maturity, insight into their personal assets and limitation, understanding the meaning of life, and ability to make decisions and plan

major life activities. There are of course other areas needing improvement but these stand out as the major perceived needs of these men and women. (Flanagan, 1975)

Literature Focusing on Quality of Life

The literature on quality of life described a world which was rapidly changing. If the quality of life is to be improved, or at least enhanced, several social scientists and writers have indicated that people who can make critical judgments, "who can weave their way through novel environments, who are quick to spot new relationships in the rapidly changing reality" (Toffler, 1970, p. 357) must be present in leadership positions. Toffler (1970) indicated that if the quality of life was to improve some of the most valued attributes of the industrial era would become handicaps and that those ready to work in unison at "endlessly repetitious jobs" would need to be replaced by men who could "in C.P. Snow's compelling term, 'have the future in their bones'" (Toffler, 1970, p. 357).

Toffler (1970) further suggested that education has a role to play in enhancing the quality of life, the task being clearly one of increasing the individual's "cope-ability, the speed and economy with which he (or she) can adapt to continual change" (Toffler, 1970, p. 357).

Others have talked about quality of life being enhanced when the individual is helped "to become" or is "fully functioning." (Maslow, 1962) (Combs, 1967) The case for education helping the individual "to become" that which he or she is capable of being has been pleaded most

eloquently in the 1962 yearbook for the Association for Supervision and Curriculum Development (ASCD). This yearbook proposed that the new focus for education be the untapped potential of the individual "to become". The concluding paragraph of the book talked about the kind of person the future would require and the skills that would be needed by people to survive in a rapidly changing society.

The development of adequate persons who see themselves in the process of becoming seems to hold significant promise for the future. The person who sees this process is open to change and trusts his impulses and values as guides for behavior in new circumstances. Such persons are probably most likely to adapt and survive as the environment changes. Such persons will be able to create ways to meet new conditions. We cannot predict the world of 2015 when today's kindergarteners will be dealing with a very different world of ideas, people and processes. We cannot know which bits of present information will be needed in that world. We can be very certain, however, that providing schools which facilitate the development of persons with adequate, fully functioning personalities is the best way to contribute some degree of stability to an uncertain future. The person who has a positive view of self, who is open to experience, who is creative, who is trustworthy and responsible, who has values, and who is well informed and aware that he or she is in the process of becoming is the person most able to survive and deal with the future. What is more, he (or she) will do a better job for the rest of us. (ASCD, 1962, p. 253)

The ASCD statement (1962) was written fifteen years ago and the literature does not suggest that it has been taken seriously, if taken seriously means educators having implemented curriculum helpful to the individual in understanding more about the self and how that person can best function in society. The 1972 Arleigh House Conference on high school education in America determined that the condition of the schools with regard to helping young people to understand who they are, what they are capable of becoming, and to realistically appraise skills and develop long range plans was seriously negligent. (Weinstein, 1973)

Rollo May (Weinstein, 1973) recalled that he has not seen a time during the last four decades when there has been so much talk about the individual's capacities and potentials and so little actual confidence in them. While the trends may reflect a change in patterns that allow women the same opportunity or a similar opportunity allowed males in education, the question remains regarding the quality of that educational experience.

The literature further suggested that people are beginning to reinterpret what is needed and necessary in their lives to enhance the quality of life. (Liu, 1973) (Campbell, Converse and Rodgers, 1976) Quality of life is no longer thought of as being something that exclusively be measured in terms of material wealth. (Liu, 1973) (Campbell, Converse and Rodgers, 1976) Where once government reports indicated quality of life had improved if one moved into a house with more bathrooms or bedrooms, or with a more modern kitchen, recent reports on the life experience take into consideration factors such as satisfaction with work, career or job status, educational attainment and the feelings of the individual about his or her life. (Campbell, Converse and Rodgers, 1976)

The research of Flanagan (1975) indicated that education did make a contribution to the quality of life of some individuals. The problem continues to remain, however, of how quality of life can be enhanced even more to adequately prepare both males and females for the future, and if, indeed, this is the trend in education.

Summary

The greater part of the literature examined for this study focused on the relationship between learned roles and career choice. The literature strongly suggested that while the law has been changed with regard to discriminating against a person based upon sex and race, the socialization process which instilled in males and females traditional concepts of roles and which careers were appropriate for women and which were appropriate for men was not easily changed. (Kagan, 1972) (Bernard, 1974) It is hopeful to note, however, that since 1966 some noticeable changes in attitude have been detected regarding career planning, preparation, and career choice as well as in employment for both males and females. Both males and females have been more willing to seek that work which was meaningful rather than that which society said was best suited to a member of a particular sex. (Flanagan, 1975) (Freeberg and Rock, 1975) (Campbell, Converse and Rodgers, 1976) (Cooperative Institutional Research Program, 1975)

Further, women have become less likely to accept a position of occupational inferiority as Horner (1972) suggested the women in her study were likely to do. Her perception of the women in her study as perceiving a narrow range of career possibilities was supported by other researchers, and was well supported until the research of 1975 and 1976. At that time a shift in female attitudes was found in three pieces of research analyzed for this study. Whether or not this is a trend cannot be answered at this time. The fact remains that women, prior to 1975, had been educated to aspire to lower positions in the world of work than

men and that by 1975 women were beginning to change their thinking. Women in the 1975 and 1976 studies did not view being an engineer, manager, foreman or a variety of previously considered masculine careers as unfeminine. (Flanagan, 1975) (Freeberg and Rock, 1975) (Campbell, Converse and Rodgers, 1976) (Cooperative Institutional Research Program, 1976) Women entering these positions had little doubt of their ability to competently perform their required tasks.

It was apparent that higher education had little, if any, effect on helping to equalize the situation for either males or females. (Feldman, 1974) Rather the pressures from various groups within the women's movement should probably be given the credit for these slow but steady changes in attitude.

With such a strong history of male superiority and male needs being met through competitive-aggressive behavior in work; and with a strong history of males' needs being met at the expense of females, it was not surprising that any change was slow. While some gains had been made, the research through 1976 constituted a somewhat unbalanced picture. Males continued to plan and find enjoyment in male-dominated fields that allowed them to prove themselves. (Fasteau, 1974) (Feldman, 1974) (Freeberg and Rock, 1975) (Guttentag and Salasin, 1975) (Lipman-Blumen and Tickameyer, 1975) (Campbell, Converse and Rodgers, 1976) The research further showed that women continued to seek employment in situations that allowed them to be nurturing, caring, helpful, and fulfill the expectations that society considered feminine. (Lipman-Blumen and Tickameyer, 1975) There were other trends, which were

slight but increasing. Women have been making changes in their lifestyle in greater numbers and percentages than ever before. (Lipman-Blumen, 1975) Women have been marrying later and less often, living longer, divorcing more often, remarrying less frequently, having fewer children, and more often deciding not to become pregnant. (Lipman-Blumen, 1975) In addition, as part of the general national trend, women have been staying in school longer and attaining higher educational levels. Women entered the labor force in greater number. More married women, as well as women with young children, entered the labor market. (Lipman-Blumen, 1975)

While the shifts in the occupational distribution of women over the past twenty years have been slight, there was some indication that women were gradually moving into higher paying, more responsible jobs. (Lipman-Blumen, 1975)

It remains, however, that even in the mid-1970's the proportion of females enrolled in school at each age level from 14 - 24 was less than that of men. (Coleman, 1973) In the Carnegie Commission Report (1973) it was stated that since 1900, women have been less likely to enter college, despite the fact that they are more likely than men to complete secondary school. Women's access to higher education--an important link to occupation opportunity--has also been limited. (Feldman, 1974)

The history of discrimination in occupation and occupational choice has been traced to the beginning of this century and documented in at least one instance as early as 1922. In a guide from the New York State Bureau of Vocational Information (1922) which encouraged women to

enter the field of chemistry, the guide warned that "the tradition" was that industrial work (i.e. industrial chemistry) was not a woman's sphere. (New York State Bureau of Vocational Information, 1922)

Still a toll has been taken and the entire problem has been summed by several writers and researchers. Epstein (1971) in a book entitled Woman's Place maintained that the best women, those in whom society had invested most heavily, underperformed, underachieved, and underproduced, and they were wasted and they "waste" themselves. And Bernard (1974) stated that she has been quite willing to concede that males have a superiority over women, when it comes to offensive aggressiveness. She stated that women could not have built empires or ravished the earth as mercilessly as men have done. Men have made contributions to the basic well-being of everyone. (Bernard, 1974) One of these contributions is modern technology which has improved living conditions for most people and enabled people to live longer and at better economic levels than their parents. (Bernard, 1974) Having said all of that, Bernard (1974) added that there have been costs, enormous human costs, and that some of those costs have been wasteful. The environment of the cities has not been very wholesome for most people; but it is worse for women than for men. (Bernard, 1974) To paraphrase an old anti-war slogan, it has not been emotionally healthy for women or other living things. The mental health of women has not been good especially for young mothers and a growing number of housewives. (Guttentag and Salasin, 1975) Bernard (1974) called the mental health of housewives Public Health Problem Number One. She traced the problem back to a society which has become

accustomed to thinking in sex stereotyping terms. This thinking has the consequences mentioned above. For Bernard and a great many others the sexes are not opposite but they have been described in that manner and in a way that sometimes means if a role was fit for one sex it was not fit for the other. (Bernard, 1974)

The world has been changing rapidly and parts of society appear to be changing to meet the demands of a new age. The studies of Flanagan (1975) and Freeberg and Rock (1975) as well as the work of Bernard (1974) and Lipman-Blumen (1975) suggested that many individuals have a void in their lives and have not been equipped to live in this rapidly changing society. Further, a growing number of men and women, especially young women, found their lives to be less than satisfying. The 1,000 participants in the Flanagan (1975) study felt the school experience they had was lacking in balance. Specifically noted as a deficiency was an experience related to self understanding. The participants indicated that their educational experience had prepared them to read, write, do mathematics, and a variety of tasks, but had fallen short in terms of helping them in areas that had come to be extremely crucial to their sense of well being as 30 year old adults. (Flanagan, 1975) The participants did not describe themselves as someone who had "the future in their bones." Further, additional studies revealed that high school students are not being helped to realistically plan and prepare for a future. (Flanagan and Cooley, 1966) The national longitudinal study, Project Talent, which involved over 1,000,000 participants who were 15 years old when the study began revealed that career plans made in high

school often turned out to be unrealistic and disillusioning. (Flanagan and Cooley, 1966)

The research suggested that equal opportunity has increased for more women and for men too, but the pace has been slow. The research does not suggest that the quality of that opportunity is of such a caliber that it would help prepare individuals to live in a rapidly changing society; that the quality of life would be improved through the current educational opportunity.

The fact remains that as the pendulum swings toward the next decade and the 1980's there has been a change in attitudes and behavior, if not values with regard to work and to the quality of life. The thrust has been one of both males and females seeking to find a life-style which is meaningful and rewarding, which leads to a satisfying life experience. The research shows this has been easier for some than for others.

CHAPTER III

DESIGN OF THE STUDY

Overview of the Comprehensive Career Education Needs Assessment

The comprehensive career education needs assessment planned for the Cedar Rapids schools was designed to take place in three phases and to provide information from the current student population, graduates of the Cedar Rapids high schools, parents, teachers, administrators, counselors, and members of the business community. Phase one of the plan included the surveying of 1,104 graduates from the classes of 1968, 1971, and 1974 of the Cedar Rapids high schools. This investigation analyzed a portion of that data collected during phase one of the study. Phase two of the plan included the surveying of the current student body, teachers, and parents as well. Phase three is the stage in which the data from phase one and phase two will be analyzed further, compared, and decisions made regarding what recommendation will be made to the board of education concerning career education in the Cedar Rapids schools. The comprehensive plan was initiated in January, 1974, and is due for completion in June, 1977. No curriculum changes related to career education are planned for the Cedar Rapids schools prior to June, 1977.

Objectives of this Study

The study reported here investigated the nature of the relationship between male and female career plans, job satisfaction, and the importance of and satisfaction with quality of life. The study reported, analyzed, and summarized data collected from the Career Education Follow-up Questionnaire related to the areas of career planning, job satisfaction, and quality of life. (See Appendix B) This information was viewed as essential to begin to form a picture of the career education experience being provided the students of the Cedar Rapids schools.

Design of the Study

The survey research design was used in a field situation for this study. It was chosen because of the amount and quality of information it produces. In Foundations of Behavioral Research, Kerlinger stated that survey research focuses on people,

the vital facts of people, and their beliefs, opinions, attitudes, motivations and behavior. The social scientific nature of survey research is revealed by the nature of its variables, which can be classified as sociological facts and opinions and attitudes. Sociological facts are attributes of individuals that spring from their membership in social groups: sex, income, political and religious affiliation, socio-economic status, education, age, living expenses, occupation, race, etc. The second type of variable is psychological and includes opinions and attitudes, on the one hand, and behavior on the other. The survey researcher is not interested primarily in the sociological variables as such; he is primarily interested in what people think and what they do (Kerlinger, 1973, p. 417).

Although there is a great deal of information available about what people think about education, it is extremely difficult to get

dependable data on the subject. As Kerlinger stated, "We simply do not know what people's attitudes toward education are" (Kerlinger, 1973, p. 422).

The large study, of which this investigation was the initial step, was that of a field study in which there was to be no experimental manipulation of any variables. The entire project was carried out in Cedar Rapids, Iowa.

Population of the Study

The population for this study consisted of the graduates of Cedar Rapids high schools in the years 1968, 1971, and 1974. The graduates of 1968 were chosen to be part of the study because of the nature of the Cedar Rapids Community Schools during the three years these graduates were in high school. In 1968 a new organizational pattern, which increased the number of high schools in the city to three, among other changes, was inaugurated. New curriculum and instructional patterns were designed to meet the needs of drop-outs and students who had previously been considered low achievers. The class of 1968 was the first class to be part of these changes. The graduates of 1971 were selected to be part of the study because it was thought that they would have had the opportunity to complete their studies and/or training beyond high school, to be working at a career or job related activity. They would also provide information from the perspective of a three year experience as part of the new organizational pattern. Graduates of the class of 1974 were thought to be close enough to the current educational

experience to provide insight that would be valuable in completing the picture of the graduate of the Cedar Rapids high school regarding his or her ability to work toward and find satisfaction as an adult member of the community.

The sub-populations of interest in this study were the male and female graduates of the classes of 1968, 1971, and 1974 from the Cedar Rapids high schools. The total population from which the sample was drawn numbered 4,167.

Hypotheses

The hypotheses tested were from three areas: (1) career preparation and planning; (2) job satisfaction; and (3) quality of life.

1. Career Preparation and Planning

1.1 In the population studied, there will be a difference between males and females in preparation for careers.

1.11 There will be a difference in the amount of education males have obtained beyond high school and the amount females have obtained beyond high school.

1.12 There will be a difference between males and females in the amount of additional training each group has had beyond high school.

1.13 There will be a difference in the employment status of males and females in the study.

1.14 There will be a difference between male and female employment patterns.

1.2 In the population studied, there will be a difference between males and females in career planning.

1.21 There will be a difference between male and female projected employment plans.

1.22 There will be a difference in the five-year plans of the males and the five-year career plans of the females in the study.

1.23 There will be a difference between males and females in the establishment of long-range career plans.

2. Job Satisfaction

2.1 There will be a difference in job satisfaction levels between males and females in the population studied.

The next section concerns quality of life (QOL) and approaches quality of life from levels of importance attached to fifteen components used to measure QOL as well as from satisfaction with each of the fifteen components.

3. Quality of Life

3.1 In the population studied, there will be a difference between males and females in the levels of importance attached to the fifteen components measuring quality of life.

3.11-1 There will be a difference between males and females in importance attached to physical and mental health.

- 3.11-2 There will be a difference between males and females in levels of importance attached to a close relationship with a spouse.
- 3.11-3 Males and females will attach different levels of importance to the importance of work.
- 3.11-4 Males and females will differ in levels of importance attached to developing maturity.
- 3.11-5 Males and females will differ in levels of importance attached to being a parent.
- 3.11-6 Males and females will differ in levels of importance attached to developing and using the mind.
- 3.11-7 Males and females will differ in levels of importance attached to material comforts.
- 3.11-8 Males and females will differ in levels of importance attached to relationships with parents, brothers, sisters, and other relatives.
- 3.11-9 Males and females will differ in levels of importance attached to having close friends.
- 3.11-10 Males and females will differ in levels of importance attached to participating in activities which help or encourage other adults or children.
- 3.11-11 Males and females will differ in levels of importance attached to reading, listening

to music, or observing sporting events or entertainment.

3.11-12 Males and females will differ in levels of importance attached to participating in active recreation.

3.11-13 Males and females will differ in levels of importance attached to self expression through music, art, writing, photography, practical activities, or in leisure time activities.

3.11-14 Males and females will differ in levels of importance attached to socializing.

3.11-15 Males and females will differ in levels of importance attached to participating in activities related to local or national government.

3.2 In the population studied, there will be a difference between male and female levels of satisfaction with quality of life.

3.21-1 Males and females will differ in degrees of satisfaction attached to physical and mental health.

3.21-2 Males and females will differ in degrees of satisfaction attached to a close relationship with a spouse.

- 3.21-3 Males and females will differ in degrees of satisfaction attached to work.
- 3.21-4 Males and females will differ in degrees of satisfaction attached to developing maturity.
- 3.21-5 Males and females will differ in levels of satisfaction attached to being a parent.
- 3.21-6 Males and females will differ in degrees of satisfaction attached to developing and using the mind.
- 3.21-7 Males and females will differ in degrees of satisfaction attached to material comforts.
- 3.21-8 Males and females will differ in degrees of satisfaction attached to relationships with parents, brothers, sisters, and other relatives.
- 3.21-9 Males and females will differ in degrees of satisfaction attached to having close friends.
- 3.21-10 Males and females will differ in degrees of satisfaction attached to participating in activities which help or encourage other adults or children.
- 3.21-11 Males and females will differ in degrees of satisfaction attached to reading, listening to music or observing a sporting event.

- 3.21-12 Males and females will differ in degrees of satisfaction attached to participation in active recreation.
 - 3.21-13 Males and females will differ in degrees of satisfaction attached to self expression.
 - 3.21-14 Males and females will differ in degrees of satisfaction attached to socializing.
 - 3.21-15 Males and females will differ in degrees of satisfaction attached to participating in activities related to local or national government.
- 3.3 In the population studied, there will be a difference between male and female marital status.
- 3.31 Males and females will differ in marital status when categorized by single, married, separated or divorced.
 - 3.32 Males and females will differ in the number of children in the families of those who are married.

Instrumentation

The Career Education Follow-up Questionnaire (Appendix B) was designed to answer the questions related to career preparation and planning, job satisfaction, and satisfaction with the quality of life as well as additional questions related to the educational experience of the graduate.

In order to be sure the instrument would answer questions deemed important by the Cedar Rapids educators, and in order to be sure data would be provided that would be useful in decision making related to career education, a panel of teachers, students, administrators, parents, counselors, and research specialists was convened to develop the questionnaire. The panel examined many types of questionnaires and came up with the current instrument as a result of months of study and consideration. The final page of the instrument is directly adapted from a questionnaire developed by John Flanagan and Darlene Russ-Eft (1975) to assess perceptions and satisfaction with the quality of life. They developed the instrument for use in a study of 1,000 thirty-year olds who had been part of the Project Talent longitudinal study. (Flanagan and Russ-Eft, 1975)

The fifteen indicators developed by Flanagan and Russ-Eft emerged through the critical incident technique. This procedure was one which the Cedar Rapids educators felt they could not duplicate. In order to obtain the critical incidents, Flanagan collected more than 6,000 critical incidents from 1,800 people from a variety of lifestyles, socio-economic levels, and parts of the country. The aim of Flanagan and Russ-Eft (1975) was to obtain specific activities and events contributing to quality of life from as wide a range of backgrounds and cultures as possible. They were not interested in a nationally representative sample, but in the gaining of a variety of insights from a variety of people. (Flanagan and Russ-Eft, 1975) In the collection process, a series of questions was used to collect the critical incidents. When

tallied, the components were grouped under five main headings: physical and material well-being, relations with other people, social and community and civic activities, personal development and fulfillment, and recreation. The fifteen incidents appear on the last page of Appendix B. They appear as they did in an article in which Flanagan reported their order of importance from his study with the sample of 1,000 former Project Talent participants. (Flanagan, 1975) The participants in the Cedar Rapids study did not have a list comparable to the Flanagan Study participants, in terms of order. Both groups evaluated each item in terms of its importance to their quality of life and in terms of their satisfaction with it, as a separate item. The Flanagan participants also were given additional degrees of importance and satisfaction to indicate a preference. There were five categories in which a response could be made for both importance and satisfaction in the Flanagan study. (Flanagan and Russ-Eft, 1975) The Cedar Rapids instrument gave three options to respond to in terms of importance and four options in terms of satisfaction. The Flanagan instrument, complete with the distribution of responses in the final sample, is Appendix B.

The differences between the two instruments, as they pertain to measuring the importance of and satisfaction with the quality of life of the participants, present a possible bias in measurement. The fact that the Cedar Rapids participants were responding to a list that had been previously ordered in terms of importance as indicated by the Flanagan participants (1975) was thought to present the possibility of a series of problems if attempts were made to compare the two findings. Therefore comparisons were not made.

Sampling Technique

The process used to sample the sub-population followed a model established for the National Longitudinal Study of the High School Class of 1972. (National Center for Education Statistics, 1973) After the selection of the graduation classes to be studied, a sub-population was randomly selected from a list of all graduates from the class of 1968, 1971, and 1974. A list of names of all graduates from the Cedar Rapids, Iowa, schools is stored in computer banks, along with information that is collected about the student's school progress. These data banks provided the information for the researchers interested in drawing a sample for this study. The total population from which the sub-population was drawn numbered 4,167. From this list of graduates listed in the computer bank, 2,702 names were drawn to be part of the study. Approximately 50 percent of those selected were females and 50 percent were males. These percentages varied slightly since researchers felt they would have more difficulty locating the 1968 graduates and less difficulty locating the 1974 graduates and therefore sent questionnaires to the entire class of 1968. Fifty percent of the names of the 1971 graduates were drawn at random and 33 percent of the names of the 1974 graduates were drawn at random from a total list of all the graduates of those years. Following the model established in the National Longitudinal Study (National Center for Education Statistics, 1973), letters were then sent to the last known address of the graduate and these letters were designed to confirm the current address of the graduate and to explain the survey. (Appendix C) The letters were sent in September,

1975, with a return card enclosed. In addition to the 2,702 that were sent in September, an additional 393 were sent several weeks later to new addresses gained from the first mailing.

The first questionnaires were mailed in October, 1975. Of the 2,430 questionnaires that were eventually sent to those who could be located, 95 percent were mailed during October, 1975. An additional five percent were sent to participants as their addresses were verified. This process continued through February, 1976.

The majority of the instruments was returned during October, November and December, 1975. By April, 1976, a total of 1,104, or 45.43 percent of the questionnaires sent had been returned. Tables 3.1 through 3.3 display the data indicating the number of responses per month and the number of graduates in the study. Table 3.4 displays the data which indicate who did not respond to the questionnaires. Table 3.4 also displays the data indicating the percent of questionnaires sent compared to the percent received. A total of 2,430 graduates could be located and were sent questionnaires. Of this number, 1,104, or 45.43 percent of those receiving questionnaires returned them.

Of the 1,104 questionnaires received, 1,062 were usable for this study. There were 42 returns that could not be used due to the nature of the response. Some respondents indicated that the questionnaire was "too personal" or "would be of no use." Other respondents whose questionnaires could not be used returned their copies with letters indicating problems with answering some of the questions. The data displayed in Table 3.5 were based upon the 1,062 usable returns. These data further

Table 3.1

Number of Career Education Follow-up Questionnaires
Categorized by School and Month Returned

<u>Graduating Class of 1968</u>								
	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	Total
Jefferson	23	57	67	32	11	1	4	196
Kennedy	10	45	22	25	3	2	3	110
Washington	19	80	55	41	8	4	3	210
Total	42	182	144	98	22	7	11	516

Table 3.2

Number of Career Education Follow-up Questionnaires
Categorized by School and Month Returned

<u>Graduating Class of 1971</u>								
	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	Total
Jefferson	42	44	21	10	0	0	0	117
Kennedy	32	24	17	10	1	0	0	84
Washington	41	22	24	12	6	0	0	105
Total	115	90	62	32	7	0	0	306

Table 3.3

Number of Career Education Follow-up Questionnaires
Categorized by School and Month Returned

<u>Graduating Class of 1974</u>								
	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	Total
Jefferson	47	15	28	7	2	0	1	100
Kennedy	43	18	20	5	1	1	0	88
Washington	39	16	24	12	2	0	1	94
Total	129	49	72	24	5	1	2	282

Table 3.4

Percent of Questionnaires Received
Compared to Percent of Questionnaires
Sent to Selected Participants

Class	Percent of Questionnaires Received from the Class	Percent Sent to the Class
Class of 1968	44.25	100.0
Class of 1971	44.02	50.0
Class of 1974	49.56	33.0

Note:

Total Questionnaires Sent = 2430

Total Questionnaires Received = 1104

Total Questionnaires Usable = 1062

Table 3.5

Usable Returns Categorized By Sex and Year

	Males	Females	Row Total
1968	233	260	493
	47.3%	52.7%	(46.4%)
1971	130	167	297
	43.8%	56.2%	(28.0%)
1974	126	146	272
	46.3%	53.7%	(25.6%)
Column Total	489	573	1062
Average Percent	46.0%	54.0%	100.0%

^aThe figures in parentheses indicate the percent of participants from that class.

indicate that a larger percentage of the participants in the study were 1968 graduates. Of the 1,062 participants in this study, 46.4 percent were 1968 high school graduates while 28.0 percent were 1971 high school graduates and 25.6 percent were graduates of the class of 1974. The largest single group of respondents were females from the class of 1968.

In the over-all selection of a sub-population an attempt was to have been made to balance the participants by sex if the division was not close to 50-50. The actual balance was very close and no manipulation of the random selection was attempted. The actual balance of males and females in terms of those returning questionnaires was also close to a 50-50 balance. Table 3.5 further provides data which indicate that 54.0 percent of the respondents are females while 46.0 percent are males.

The effort to obtain as large a sample as possible involved sending reminder letters and prompting post cards to those who had received a questionnaire but had not returned them by the end of November, 1975. (Appendix C) Respondents were identified through a number and through a coding by year of graduation and their last attendance center (or the high school from which they graduated). The 45.43 percent return of questionnaires was higher than the Cedar Rapids researchers had been led to believe they could expect from a mail survey.

Treatment of Data

The data were tabulated as presented in the following chapter. The chi-square test was used in this study to determine the relationship

between and among males and females with regard to career planning, job satisfaction, and quality of life. Kerlinger (1973) indicated that the "chi-square test is one of the simplest and yet the most useful of statistical tests" (Kerlinger, 1973, p. 168). The data collected for this study were of a nominal nature and the samples were independent thus fitting two of the criteria for the use of the chi-square outlined by Siegel (1956). Since the data were nominal, a non-parametric test was chosen for use as suggested by Huck, Cormier and Bounds (1974).

The data consisted of frequencies in discrete categories and the frequencies in each cell were above 40 in more than 80 percent of the cells per table as recommended by a number of researchers (Siegel, 1956, p. 110). Ary and Jacobs (1976) indicated that when nominal data are arranged into categories for a chi-square analysis, these categories must be mutually exclusive categories, which means that each response can be classified only once. This must be the case due to the fundamental assumption that each observation used in the chi-square test or each frequency is independent of all others (Ary and Jacobs, 1976, p. 409).

The following procedure recommended by Ary and Jacobs (1976) in the application of the chi-square test was used in this study:

1. The hypotheses were formed indicating two variables independent of each other.
2. A random sample was drawn and the subjects classified on two or more variables.

3. Contingency tables were set up with the variables indicated in the rows and columns of the table.
4. The observed frequencies were recorded in the proper cells and the marginal totals determined.
5. The expected frequencies were derived from the observed data themselves. The sum of the expected frequencies equalled the sum of the observed frequencies.
6. Since the data consisted of frequencies in categories, the chi-square test was the appropriate statistical test. The calculated chi-square test was compared with the tabled value at a predetermined level of significance (.05) and with (rows-1) x (columns-1) degrees of freedom. In a 2 x 2 table where the number of degrees of freedom is one, a continuity correction was used in calculating chi-square.
7. Using .05 as the probability for making a Type I error, the calculated chi-square was compared with the tabled value. If the chi-square value equalled or exceeded the tabled value, the research hypothesis was accepted and the null hypothesis was rejected. If the calculated chi-square value was smaller than the tabled value, the null hypothesis could not be rejected.

The formula used to test each hypothesis was:

$$\chi^2 = \sum_{i=1}^r \sum_{j=1}^k \frac{(O_{ij} - E_{ij})^2}{E_{ij}}$$

where O_{ij} = observed number of cases categorized in i th row of j th column

E_{ij} = number of cases expected under H to be categorized in i th row of j th column

$\sum_{i=1}^r \sum_{j=1}^k$ directs one to sum over all (r) rows and all (k) columns, i.e. to sum over all cells (Siegel, 1956, pp. 104-105).

The values of χ^2 yielded by the formula were distributed approximately as chi-square with $df = (r-1) \times (k-1)$, where r = the number of rows and k = the number of columns in the contingency table. To find the expected frequency for each cell (E_{ij}) the two marginal totals common to a particular cell were multiplied and then the product was divided by the total number of cases (N). (Siegel, 1956)

The data for each hypothesis were generally displayed in the format presented in Table 3.6. The table displays the frequencies in which 375 males and 395 females were categorized according to whether or not they perceived themselves in positions traditionally occupied by the same sex, other sex, or in a position appropriate for either sex. The hypothesis stated that each sex was likely to be in a position deemed traditional or appropriate for members of that sex. Using .05 as the probability of making a Type I error, the null hypothesis was rejected. The difference between the percentage of males in a position appropriate for males and the percentage of females in a position appropriate for females was large enough to accept the research hypothesis, as was the difference between the percentage of males in a position appropriate for

Table 3.6

Illustrative Table Comparing Employment Positions
Held by Males and Employment Positions
Held by Females

Hypothesis 1.13 There will be a difference between male and female employment patterns when categorized by employment positions traditionally occupied by members of the same sex, other sex, or positions traditionally occupied by either sex.

	Same Sex		Other Sex		Either Sex		Row Total
	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	
Males	264	70.4	8	2.13	103	27.5	375
Females	211	54.4	51	12.9	133	33.7	395
Column Total	475		59		236		770
Average Percent		61.7		7.7		30.6	100.0

Note: Maximum n = 1062.

^aChi-square = 40.48

^bReject the null hypothesis at = .05

^cdf = 2

^dp < 0.000

females and the percentage of females in a position appropriate for males. It should be noted that the chi-square test does not indicate where the difference is, only that there is a difference between the males and the females.

Finally, each table contains the probability of drawing at random a χ^2 value equal or larger than the one found using the data in this study. The probability on the tables is designed by p and the probability is given to the nearest .001 percent.

Summary

This project was a field study concerned with comparisons of male and female responses to a questionnaire designed to provide information regarding career preparation and planning, job satisfaction and the quality of life. Certain characteristics of both males and females were identified as independent variables and statistical comparisons made between the responses of the two groups.

Of the 1,104 questionnaires returned, 1,062 were usable. The number returned represented 45.43 percent of the total number of participants selected for the study. The number included in the sample, which was 1,062, represented 25.49 percent of the total number of all graduates of the Cedar Rapids high schools classes of 1968, 1971 and 1974.

The basic instrument used for data collection was a Career Education Follow-up Questionnaire designed and developed by a committee from the Cedar Rapids Community Schools.

The Research Department of the Cedar Rapids Community Schools, in conjunction with the Department of Guidance and Personnel, developed a

format for the collection of the data which began with a letter to the parents of the participants selected to be part of the study. The letters were sent in September, 1975, and as soon as the addresses of the participants were confirmed, questionnaires were mailed to the participants. The mailing of the questionnaires took one month. The majority of the questionnaires was returned within two months of the first mailing. A variety of follow-up procedures and personal contacts was made in order to elicit the highest number of responses possible.

The data were analyzed by the means of the chi-square test for independent samples to determine if a relationship existed between sex of the respondents regarding each of the following variables: career preparation and planning, job satisfaction, the importance of components of quality of life, and satisfaction with quality of life. Attention was focused through these analyses to the discrepancies between male and female responses. A probability of .05 for making a Type I error was used in testing each of the hypotheses.

CHAPTER IV

FINDINGS

The data collected through the procedures described in Chapter III were analyzed by making comparisons between male and female responses using contingency table analysis. This procedure has been referred to as crosstabulation and is a joint frequency distribution of cases according to two or more classifiable variables (Nie et al., 1975, p. 218). The chi-square test was used to determine whether the research hypotheses predicting differences between male and female respondents could be accepted or the null hypotheses retained. The findings were presented, first with each research hypothesis followed by tables displaying the data that indicated whether or not the null hypothesis could be rejected using the .05 level of probability for making a Type I error. Hypotheses related to career preparation and planning were presented first, followed by hypotheses related to job satisfaction. Last were three sets of hypotheses concerning quality of life, one set of hypotheses concerning the components of quality of life that were important to the individual, the next set of hypotheses concerning satisfaction with quality of life, and a third set related to marital and family status.

Responses to Career Planning and Career Preparation

It was hypothesized that there would be a difference between males and females regarding the preparation and planning of careers. The nature of these plans was predicted to vary between males and females for both current employment and projected plans.

Hypothesis 1.11 stated that there would be a difference between the amount of education males had obtained beyond high school and the amount of education females had obtained beyond high school. Using the .05 level of probability for making a Type I error, this null hypothesis was rejected. Table 4.1 displays the data for this hypothesis.

The data further suggested that a larger percentage of males had continued with their education, had obtained some type of a degree and were currently in school. The latter category varied only slightly with 23.0 percent of the males indicating they were in school currently and 22.9 percent of the females making the same indication. The largest difference was found in the category of those having had less than 12 months of education. Of the 925 responding to this question, 12.9 percent of the males indicated they had less than 12 months of education while 23.5 percent of the females made a similar indication.

Table 4.1

A Comparison of Male and Female
Educational Experiences Categorized by
Years in School, Degree, and Current Status

Hypothesis 1.11 There will be a difference between the amount of education males have obtained beyond high school and the amount of education females have obtained beyond high school.

	Less Than 12 months		One to Two Years School		With a Degree		In School Currently		Row Total
	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	
Males	58	12.9	125	27.9	162	36.2	103	23.0	448
Females	112	23.5	107	22.4	149	31.2	109	22.9	447
Column Total	170		232		311		212		925
Average Percent		18.4		25.1		33.6		22.9	100.0

Note:

^aChi-square = 18.37

^bReject the null hypothesis at $\alpha = .05$

^cdf = 3

^d $p < 0.000$

A second chi-square test was made to check hypothesis 1.11 regarding differences between the levels of education of the male and female graduates. The data were presented in Table 4.2 This time comparisons were made strictly between males and females who had gone to college, received a bachelor's degree, done some graduate work, or received a graduate degree. Ninety percent of the possible 1,062 respondents indicated they belonged in one of these categories, with almost half of the total sample indicating they had had some college education. Five hundred and seventeen individuals indicated some college work, and of these five hundred and seventeen, 230 were males and 287 were females. While a larger percentage of females indicated some college experience, a larger percentage of males had a bachelor's degree, were involved in graduate studies and had obtained graduate degrees. Thirty-three percent of the males answering questions that allowed them to be placed in one of the four categories indicated that they had a bachelor's degree, while 28.2 percent of the females made the same indication. Of those involved in graduate studies, 14.5 percent of the males were in this category while 9.4 percent of the females could be categorized in the same way. The percentage of males with a graduate degree was 3.6 percent while 2.5 percent of the females had obtained such a degree. Table 4.2 displays data which further support hypothesis 1.11 and the data presented in Table 4.1.

Table 4.2

A Comparison of Male and Female
Educational Experiences Categorized by
College Level, Degree, and Graduate Studies

Hypothesis 1.11 There will be a difference between the amount of education males have obtained beyond high school and the amount of education females have obtained beyond high school.

	Some College		Bachelor's Degree		Graduate Studies		Graduate Degree		Row Total
	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	
Males	230	48.4	159	33.5	69	14.5	17	3.7	475
Females	287	60.0	135	28.2	45	9.4	12	2.5	479
Column Total	517		294		114		29		954
Average Percent		54.2		30.8		11.9		3.0	100.0

Note:

^aChi-square = 14.11

^bReject the null hypothesis at $\alpha = .05$

^cdf = 3

^d $p < 0.000$

Hypothesis 1.12 stated that males and females would differ in the amount of additional training beyond high school. Table 4.3 displays the data relating to this hypothesis. Using the .05 level of probability for making a Type I error, the null hypothesis was rejected and it was concluded that there were differences between the males and females in this study in the amount of additional training beyond high school. Data for this question were gathered by asking participants if their present position required additional training. Responses to the item indicated that a larger percentage of males were in positions that required additional training beyond high school than were females.

The data further suggested that 57.6 percent of the males had positions which required training beyond high school. Forty-eight percent of the females made a similar indication. A total of 52.7 percent of the 744 respondents indicated some additional job training as a requirement for their present position. Those answering no to the question of their present job requiring additional training numbered 350 or 47.0 percent of those who responded to the item. Of this percent, 42.2 were males who indicated their present job did not require additional training. A larger number of females indicated that their present position did not require additional training beyond high school. Fifty-two percent of the females said their present position did not require additional training. Less than one percent of both males and females indicated uncertainty with regard to the question. Seventy percent of the possible 1,062 participants in this study addressed this question and indicated if they had obtained any additional training beyond high school as required by their job.

Table 4.3

Male and Female Indications of Additional
Training Beyond High School as Required
by the Job

Hypothesis 1.12 There will be a difference between males and females in the amount of additional training each group has beyond high school.

	Yes Training Required		No Training Required		Yes/No		Row Total
Males	213	57.6	156	42.2	1	0.3	370
Females	179	47.9	194	51.9	1	0.3	374
Column Total	392		350		2		744
Average Percent		52.7		47.0		0.3	100.0

Note:

^aChi-square = 7.05

^bReject the null hypothesis at $\alpha = .05$

^cdf = 2

^d $p < 0.029$

Hypothesis 1.12 was also tested by categorizing the length of training of the males and females from little to very much training, as indicated by the participant. Using a .05 level of probability for making a Type I error, the null hypothesis could be rejected. Differences between males and females in length of additional training beyond high school were found when the training was categorized in terms of little, some, much, and very much. Thirty-three percent of the males reported their jobs required and they had obtained a little additional training, while 27.2 percent of the females made the same indication. Thirty-four percent of the males indicated their jobs required some additional training and they had obtained this training, while 42.4 percent of the females made the same indication. Thirty-two percent of the males indicated their jobs required much additional training and they had obtained this training, while 30.3 percent of the females were in this category. Two percent of the males were in the category of having to obtain "very much" additional training, while no female made such an indication. A total of seven hundred and seventeen of the possible 1,062 respondents addressed the question regarding length of additional training beyond high school. This was 67.5 percent of those possible. Table 4.4 displays these data.

Table 4.4

Male and Female Indications of Length
of Additional Training Beyond High Schools as Required
by their Current Position

Hypothesis 1.12 There will be a difference between males and females in the amount of additional training each group has beyond high school.

	Little Time		Some Time		Much Time		Very Much Time		Row Total
	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	
Males	118	32.7	122	33.8	115	31.9	6	1.7	361
Females	9	27.2	151	42.4	108	30.3	0	0.0	356
Column Total	215		273		223		6		717
Average Percent		30.0		38.1		31.1		0.8	100.0

Note:

^aChi-square = 11.32

^bReject the null hypothesis at $\alpha = .05$

^cdf = 3

^d $p < 0.01$

Table 4.5 displays the data for hypothesis 1.13 which states that there will be a difference in the employment status of males and females in the study. The data revealed that 71.4 percent of the males were fully employed at the time of the questionnaire completion while only 62.1 percent of the females were fully employed. Females had a larger percentage of unemployed, 11.7, compared to 8.9 for the males, and they also had a larger percentage of the part-time positions. Using the .05 level of probability for making a Type I error, the hypothesis was rejected based upon these data.

A study of the data revealed that of the 764 respondents who addressed themselves to this question, 23.0 percent were occupying part-time positions, 66.6 percent were in full-time positions, and 10.3 percent were unemployed.

The majority of participants answering this item were fully employed. Of the 764 who responded to the item, 509 or 66.6 percent indicated full-time status; 52.0 percent were males and 47.9 percent were females. Seventy-two percent of the respondents in the study addressed the item. Table 4.6 contains data which further supported hypothesis 1.13. The table contains a comparison of length of employment of males and females in this study. A larger percentage of females had been employed six months or less while a larger percentage and number of males had been employed over 36 months. When employment status was defined in terms of length of employment, the null hypothesis

Table 4.5

A Comparison of Male and Female Employment
Status Categorized by Part-time, Full-time
or Unemployed Status

Hypothesis 1.13 There will be a difference in the employment status of males and females in the study.

	Part-Time Positions		Full-Time Positions		Unemployed		Row Total
	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	
Males	73	19.7	265	71.4	33	8.9	371
Females	103	26.2	244	62.1	46	11.7	393
Column Total	176		509		79		764
Average Percent		23.0		66.6		10.3	100.0

Note:

^aChi-square = 7.49

^bReject the null hypothesis at $\alpha = .05$

^cdf = 2

^d $p < 0.024$

Table 4.6

A Comparison of Male and Female Employment Status
Categorized by Length of Time Spent in Current Position

Hypothesis 1.13 There will be a difference in the current employment status of males and females in the study.

	6 months or less	7-12 months	13-24 months	25-36 months	Over 36 months	Row Total
Males	93	48	61	67	78	352
Percent	26.4	13.6	18.8	19.0	22.2	
Females	136	41	73	45	48	343
Percent	39.7	12.0	21.3	13.1	14.0	
Column Total	229	89	139	112	126	695
Average Percent	32.9	12.8	20.0	16.1	18.1	100.0

Note:

^aChi-square = 20.33

^bReject the null hypothesis at $\alpha = .05$

^cdf = 4

^d $p < 0.000$

(1.13) was rejected using the .05 level of probability of making a Type I error. The data displayed in Table 4.6 indicated that 22.2 percent of the males reported being employed in their current position 36 months or longer. These figures compare to 14.0 percent of the females making the same indication. Almost 40.0 percent of the females indicated they had been on the job six months or less while 26.4 percent of the males made the same indication.

A review of the literature indicated that career plans would follow traditional patterns for both males and females, but that the percentage of females moving into positions previously considered for "males only" or appropriate for males was increasing. Hypothesis 1.14 stated that current employment positions of males and females would differ. This hypothesis was first tested using the results of the male and female responses to whether or not they currently occupied a position considered traditional for the same sex, other sex, or for either sex. The responses were based upon the participant's perceptions of what positions could be considered appropriate for the same sex, other sex, or either sex. Table 4.7 displays the data which indicated the null hypothesis could be rejected using the .05 level of probability in making a Type I error. These results indicated that 70.4 percent of the males in the study were in positions they defined as "typically male" while 53.4 percent of the females were in positions they had defined as "typically female."

Table 4.7

Current Employment Positions of Males and Females in
Work Traditionally Considered Appropriate for Members
of the Same Sex, Other Sex, or for Either Sex

Hypothesis 1.14 There will be a difference between male and female employment patterns when categorized by employment positions traditionally occupied by members of the same sex, other sex, or either sex.

	Same Sex		Other Sex		Either Sex		Row Total
	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	
Males	264	70.4	8	2.13	103	27.5	375
Females	211	53.4	51	12.9	133	33.7	395
Column Total	475		59		236		770
Average Percent		61.7		7.7		30.6	100.0

Note:

^aChi-square = 13.17

^bReject the null hypothesis at $\alpha = .05$

^cdf = 3

^d $p < 0.000$

A further look at the data suggested that 61.7 percent of the 770 who answered the item were in positions considered appropriate for their sex. A total of 7 percent of the 770 were in positions considered appropriate for the other sex, and 30.6 percent of the 770 were in positions considered to be appropriate for either sex.

Table 4.8 displays the data which indicate the current employment positions of the participants. The employment position with the largest percentage and number of males and females was that of business office type of positions with 130 or 18.2 percent of the participants who responded indicating this area as their current employment. The second highest employment position was that of public service, with 66 females or 9.0 percent 716 who indicated their present position making this choice. The largest number of males was found in manufacturing occupations, public service and construction but male respondents were generally spread throughout a variety of positions.

A second comparison of the responses of males and females to the question of level of responsibility they had in their current employment position was used to test hypothesis 1.14. Table 4.9 displays the data which indicate the null hypothesis could be rejected when it was tested

Table 4.8

Employment Positions Currently Being Held by Male and Female
High School Graduates

Employment Position	Males			Females			Row Total
	<u>n</u>	<u>%</u>	<u>r</u>	<u>n</u>	<u>%</u>	<u>r</u>	
1. Business-Office	35	4.9	6	130	18.2	1	165
2. Public Service (Teaching, Social Work, Criminal Justice, Police Work, etc.)	57	8.0	2	66	9.0	2	133
3. Marketing-Distribution	45	6.3	3	42	5.9	3	87
4. Manufacturing	61	8.5	1	20	2.8	6	81
5. Personal Services (Grooming, Waitress, Waiter, Child-care, etc.)	33	4.6	7	25	3.5	5	58
6. Construction	42	5.9	4	2	0.3	13	44
7. Health Care	12	1.7	9	31	4.3	4	43
8. Transportation	38	5.3	5	4	0.6	9	42

Table 4.8 continued

9. Communications-Media	13	1.8	8	10	1.4	8	23
10. Consumer-Homemaker	3	0.4	14	13	1.8	7	16
11. Agriculture	9	1.3	10	3	0.4	11	12
12. Hospitality-Recreation	6	0.8	11	3	0.4	11	9
13. Fine Arts-Humanities	4	0.6	12	4	0.6	9	8
14. Environment	4	0.6	12	0	0.0	15	4
15. Marine Science	0	0.0	15	1	0.1	14	1

Note: Percentages may not total 100.0% due to participants being able to make more than one selection.

^a_n = number responding in the category

^b% = percent of males or females who responded to the item

^c_r = ranking of the employment position based upon participant choice (i.e. Business-Office ranked number six in terms of the number of males presently employed in that position but for females it was number one)

Table 4.9

A Comparison of Male and Female Current
Employment Patterns Categorized by Positions
with Little, Some, Much or Very Much Responsibility

Hypothesis 1.14 There will be a difference between male and female
employment patterns when categorized by positions
with little, some, much or very much responsibility.

	Little Respon- sibility		Some Respon- sibility		Much Respon- sibility		Very Much Respon- sibility		Row Total
	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	
Males	110	30.3	129	35.5	117	32.2	7	1.0	363
Females	87	24.4	160	44.8	110	30.8	0	0.0	357
Column Total	197		289		227		7		720
Average Percent		27.4		40.1		31.5		1.0	100.0

Note:

^aChi-square = 13.17

^bReject the null hypothesis at $\alpha = .05$

^cdf = 3

^d $p < 0.000$

this way, also. Differences between males and females were found to exist at each of the four levels of responsibility. Males indicated they had little responsibility in their current employment position at the rate of 30.3 percent of those males reporting. A total of 24.4 percent of the females made the same indication. Forty-five percent of the females indicated they had some responsibility in their present position while 35.5 percent of the males made a similar indication. Thirty-two percent of the males indicated much responsibility in their present position while 30.8 percent of the females indicated they had much responsibility in their present position. A total of 1.9 percent of the males indicated they had "very much" responsibility in their present employment position. None of the 357 females responding to this item made such an indication. A total of 720 participants or 68.0 percent of the possible 1,062 responded to this item regarding the level of responsibility they had in their present position.

Hypothesis 1.21 stated that there would be differences between male and female projected employment plans when categorized by employment positions traditionally occupied by the same sex, other sex, or either sex. Table 4.10 displays the data which indicate the null hypothesis could be rejected using the .05 level of probability in making a Type I error. The data revealed that 64.1 percent of the males had plans for continuing work in positions traditionally considered appropriate for males, while 31.1 percent of the females had such plans for the future. Plans for working in positions considered appropriate for the other sex were dramatically different, with 0.8 percent of the males indicating

Table 4.10

A Comparison of Projected Employment Plans for Males and Females in Work Traditionally Considered Appropriate for Members of the Same Sex, Other Sex, or for Either Sex

Hypothesis 1.21 There will be a difference between male and female projected employment plans when categorized by employment positions traditionally occupied by the same sex, other sex, or either sex.

	Same Sex		Other Sex		Either Sex		Row Total
	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	
Males	234	64.1	3	0.8	128	35.1	365
Females	122	31.1	74	18.9	196	50.0	392
Column Total	356		77		324		757
Average Percent		40.7		10.0		42.8	100.0

Note:

^aChi-square = 114.2

^bReject the null hypothesis at $\alpha = .05$

^cdf = 2

^d $p < 0.008$

such plans, while 18.9 percent of the females indicated plans for seeking employment in positions traditionally considered appropriate for the other sex. Thirty-five percent of the males had plans for working in positions considered appropriate for either sex while 50.0 percent of the females had similar plans.

Table 4.11 gives a breakdown of the categories of positions planned for the future. For the future, a total of 192 or 27.8 percent of the 670 participants who responded to this item indicated they would be going into some type of position related to public service. Twenty-four percent of the males made this indication while 33.1 percent of the females indicated they would be going into some type of employment related to public service. The category receiving the second highest number and percentage of responses was that of business-office related work. While this category was number two in terms of the number and percent of females expecting to, a total of 18.0 percent, it was number three on the males' list. Males indicated construction as the second highest area of employment planned for the future.

Table 4.12 displays data which indicate that there were differences between male and female projected employment plans when they were categorized by expectations regarding level of responsibility. The null hypothesis was rejected using the .05 level of probability for making a Type I error. Males indicated a greater expectation for occupying positions which require very much responsibility and for positions in which much responsibility is expected of them than did females. A larger percentage of females indicated they expected to be in positions

Table 4.11

Employment Positions Male and Female Graduates
Expect to Hold in the Future

Employment Position	Males			Females			Row Total	
	<u>n</u>	<u>%</u>	<u>r</u>	<u>n</u>	<u>%</u>	<u>r</u>	<u>n</u>	<u>%</u>
1. Public Service	74	11.4	1	118	17.6	1	192	28.7
2. Business-Office	39	5.8	3	64	9.5	2	103	15.4
3. Health	24	3.6	5	64	9.5	2	88	13.1
4. Marketing-Distribution	39	5.1	3	11	1.6	7	50	7.5
5. Construction	45	6.7	2	4	0.5	10	49	7.3
6. Consumer-Homemaking	6	0.9	12	37	5.2	4	43	6.4
7. Fine Arts-Humanities	19	2.8	6	17	2.5	5	36	5.4
8. Agriculture	15	2.2	7	9	1.3	8	24	3.6
9. Communications	10	1.5	11	13	1.9	6	23	3.4
10. Transportation	15	2.2	7	4	0.5	10	19	2.8
11. Manufacturing	13	1.9	9	1	0.1	15	14	2.1

Table 4.11 continued

12. Personal Services	9	1.3	10	4	0.5	10	13	1.9
13. Hospitality-Recreation	2	0.2	13	5	0.7	9	7	1.0
14. Environment	2	0.2	13	3	0.4	13	5	0.6
15. Marine Science	2	0.2	13	2	0.2	14	4	0.6

Note:

a_n = number responding in the category

$b_{\%}$ = percent of males or females who responded to the item

c_r = ranking of the employment position based upon participant choice

Table 4.12

A Comparison of Projected Employment Levels of
Responsibility for Males and Females

Hypothesis 1.22 There will be a difference between male and female projected employment plans when categorized by expectations for level of responsibility.

	Require Little		Require Some		Require Much		Require Very Much		Row Total
	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	
Males	8	2.5	96	30.5	179	56.8	132	10.2	315
Females	3	0.8	112	31.5	228	64.0	13	3.7	356
Column Total	11		208		407		45		671
Average Percent		1.6		31.0		60.7		6.7	100.0

Note:

^aChi-square = 14.97

^bReject the null hypothesis at $\alpha = .05$

^cdf = 3

^d $p < 0.000$

requiring some responsibility than did males, although the difference was slight.

Table 4.13 displays data which indicate that males and females also differ in the training they anticipate their future positions requiring of them. Again, the null hypothesis was rejected using the .05 level of probability for making a Type I error. A larger percentage of males thought their position would require very much responsibility than did females.

A total of 671 participants or 63.2 percent of the 1,062 who were involved in the study responded to the item asking for information regarding expectations regarding level of responsibility, while 668 or 63.0 percent of the participants in the study gave a response to the item related to level of training.

Table 4.14 presents the data for hypothesis 1.22 which stated that there would be a difference between male and female five-year career plans. Using .05 as the probability of making a Type I error, the difference between male and female five-year career plans was sufficiently large enough to reject the null hypothesis. Males reported a higher percentage of plans for doing the same work five years from now than females, with 33.1 percent of the males indicating they planned to be doing the same work five years from now and 26.3 percent of the females indicating similar plans. Males had a lower percentage than the females in terms of plans for doing different work five years from now with 48.7 percent of the males having such plans and 61.8 percent of the females having similar plans. Eighteen percent of the males were

Table 4.13

A Comparison of Projected Job Requirements
for Males and Females

Hypothesis 1.22 There will be a difference between male and female projected employment plans when categorized by expectations for job requirements.

	Require Little Training		Require Some Training		Require Much Training		Require Very Much Training		Row Total
	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	
Males	11	3.5	85	27.0	187	59.4	32	10.2	315
Females	11	3.1	98	27.8	230	65.2	14	4.0	353
Column Total	22		183		417		46		668
Average Percent		3.3		27.4		62.4		6.9	100.0

Note:

^aChi-square = 10.27

^bReject the null hypothesis at $\alpha = .05$

^cdf = 3

^d $p < 0.010$

Table 4.14

Five-Year Career Plans for Males and Females

Hypothesis 1.22 There will be a difference in the five-year career plans of males and females.

	Same Work		Different Work		Uncertain		Row Total
	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	
Males	123	33.1	181	48.7	68	18.3	372
Females	106	26.3	249	61.8	48	11.9	403
Column Total	229		530		116		775
Average Percent		29.5		55.5		15.0	100.0

Note:

^aChi-square = 14.25

^bReject the null hypothesis at $\alpha = .05$

^cdf = 2

^d $p < 0.000$

uncertain about their five-year career plans while 11.9 percent of the females indicated uncertainty.

A careful examination of the data displayed in Table 4.14 further suggested that of those indicating a response to this item, a total of 775 respondents, 39.5 percent of the participants indicated they would be doing the same work five years from now; 55.5 percent indicated they would be doing different work five years from now; and 15.0 percent were uncertain.

Data for this hypothesis were gathered by asking if the respondent expected to be doing the same work five years from now. Seventy-three percent of the participants in the study addressed this question.

Hypothesis 1.23, regarding differences between males and females in the establishment of long-range career plans, was accepted. The total percentage of males reporting long-range career plans was 66.7 percent while the total percentage of females making the same report was 57.6 percent. Thirty-two percent of the males indicated they did not have long-range career plans, while 40.4 percent of the females indicated a negative response to long-range career plans. One percent of the males were uncertain about their long-range career plans and 2 percent of the females indicated uncertainty about long-range career plans. The difference between the percentages was large enough to reject the null hypothesis. Table 4.15 displays the data for this hypothesis.

A more thorough review of the data also suggested that of the 1,028 respondents answering this item, 61.9 percent indicated they had long-range career plans and 36.6 percent did not. Considering the

Table 4.15

Long-Range Career Plans for Males and Females

Hypothesis 1.23 There will be a difference between males and females in the establishment of long-range career plans.

	Long-Range Career Plans Yes		Long-Range Career Plans No		Uncertain		Row Total
	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	
Males	319	66.7	154	32.3	5	1.0	478
Females	317	57.6	222	40.4	11	2.0	550
Column Total	636		376		16		1028
Average Percent		61.9		36.6		1.6	100.0

Note:

^aChi-square = 9.56

^bReject the null hypothesis at $\alpha = .05$

^cdf = 2

^d $p < 0.001$

number responding to the uncertain category on other items, the 1.6 percent indicating they were uncertain about long-range career plans was quite low.

Data for this hypothesis were collected by asking the question, "Do you have a career plan covering the next 10 to 15 years?" Ninety-seven percent of the participants in the study responded to this question.

Job Satisfaction Responses

The differences hypothesized regarding job satisfaction indicated that there would be a difference between male and female levels of job satisfaction. Hypothesis 2.11 stated this and Table 4.16 displays the data which indicate the null hypothesis could not be rejected. Males reported job satisfaction at the rate of 66.9 percent while females indicated job satisfaction at the rate of 71.2 percent. Dissatisfaction was indicated by 28.5 percent of the males and 24.6 percent of the females, when they considered their present positions. A total of 72 percent of the possible 1,062 participants responded to the question of whether or not they were satisfied with their present position.

Responses to the Importance of the Fifteen Indicators of Quality of Life

Differences were predicted between male and female indications of importance to a variety of items related to quality of life. Information indicating satisfaction with quality of life and information regarding marital and family status were also sought. Hypothesis 3.11 concerned the items related to the importance of quality of life components. Hypothesis 3.21 concerned satisfaction with the components of quality of

Table 4.16

Male and Female Responses to Job Satisfaction

Hypothesis 2.11 There will be a difference between males and females in job satisfaction.

	Satisfied with Present Position		Dissatisfied with Present Position		Uncertain about Present Position		Row Total
	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	
Males	249	66.9	106	28.5	17	4.6	372
Females	284	71.2	98	24.6	17	4.3	399
Column Total	533		204		34		771
Average Percent		69.1		26.5		4.4	100.0

Note:

^aChi-square = 1.67

^bCould not reject the null hypothesis

^cdf = 2

^d $p < 0.434$

life and hypothesis 3.31 concerned the items related to marital and family status.

Hypothesis 3.11-1 predicted that there would be a difference between males and females in the importance of physical and mental health. Table 4.17 displayed the data which indicated that the null hypothesis could not be rejected. The differences between males and females in the level of importance attached to this item were slight with 14.3 percent of the males indicating this item was important to their quality of life and 17.0 percent of the females making the same indication. Eighty-five percent of the males indicated the item was very important to their quality of life while 82.5 percent of the females made the same indication. This item was addressed by 99 percent of the possible participants in the study.

Hypothesis 3.11-2 stated that males and females would attach different levels of importance to a close relationship with a spouse. The data displayed in Table 4.18 indicated that the null hypothesis could be rejected using the .05 probability for making a Type I error.

Males indicated that a close relationship with a spouse was very important at a lower percentage than did the females. Seventy percent of the males indicated a close relationship with a spouse was very important to their quality of life, while 80.6 percent of the females made the same indication. Male respondents indicated that a close relationship was important to their quality of life at the rate of about 25.2 percent, while 14.6 percent of the females made the same indication. Those indicating this item was not important to their quality of

Table 4.17

Comparison of Male and Female Responses to the
Importance of Physical and Mental Health

Hypothesis 3.11-1 There will be a difference between male and female levels of importance attached to physical and mental health.

	Very Important		Important		Not Important		Row Total
	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	
Males	412	85.5	69	14.3	1	0.2	482
Females	470	82.5	97	17.0	3	0.2	570
Column Total	882		166		4		1052
Average Percent		83.8		15.8		0.4	100.0

Note:

^aChi-square = 2.19

^bCould not reject the null hypothesis

^cdf = 2

^d $p < 0.334$

Table 4.18

Male and Female Responses to the Importance of
A Close Relationship with a Spouse

Hypothesis 3.11-2 There will be a difference between males and females in levels of importance attached to a close relationship with a spouse.

	Very Important		Important		Not Important		Row Total
	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	
Males	337	70.1	121	25.2	23	4.8	481
Females	456	80.6	83	14.6	27	4.7	566
Column Total	793		204		50		1047
Average Percent		75.7		19.5		4.8	100.0

Note:

^aChi-square = 18.48

^bReject the null hypothesis at $\alpha = .05$

^cdf = 2

^d $p < 0.000$

life were the same percentage for both groups; 4.8 percent of the males made this choice while 4.7 percent of the females indicated that a close relationship with a spouse was not important to their quality of life.

A total of 98.6 percent of the total 1,062 possible participants responded to this item, with 75.7 percent of the total 1,047 responding to the item indicating that it was very important to their quality of life and 19.5 percent indicating it as important. Five percent of those responding indicated that it was not important to their quality of life.

Hypothesis 3.11-3 stated that males and females would differ in levels of importance attached to the role of work. Table 4.19 displays the data which indicated the null hypothesis could not be rejected. Males indicating work very important to their quality of life did so at the rate of 70.8 percent while 76.6 percent of the females indicated work was very important to their quality of life.

A total of 1,041 or 98.0 percent of the 1,062 possible participants responded to this item.

Males and females were predicted to differ in levels of importance attached to developing maturity. Hypothesis 3.11-4 stated this and the data displayed in Table 4.20 indicate that the null hypothesis could not be rejected using the .05 level of probability for making a Type I error.

Males and females indicated developing maturity was important to their quality of life at similar rates. A total of 1,040 participants responded to this item or 98.0 percent of the total 1,062 possible respondents. Of those responding, 80.9 indicated it was very important

Table 4.19

Male and Female Responses to the Importance of
Work to Their Quality of Life

Hypothesis 3.11-3 Males and females will attach different levels
of importance to the importance of work.

	Very Important		Important		Not Important		Row Total
	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	
Males	335	70.8	123	26.0	15	3.2	473
Females	435	76.6	121	21.3	12	2.1	568
Column Total	770		244		27		1041
Average Percent		74.0		23.4		2.6	100.0

Note:

^aChi-square = 4.71

^bCould not reject the null hypothesis

^cdf = 2

^d $p < 0.095$

Table 4.20

Male and Female Responses to the Importance of
Developing Maturity to Their Quality of Life

Hypothesis 3.11-4 Males and females will differ in levels of
importance attached to developing maturity.

	Very Important		Important		Not Important		Row Total
	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	
Males	391	81.5	85	17.7	4	0.8	480
Females	450	80.5	108	19.3	2	0.4	560
Column Total	841		193		6		1040
Average Percent		80.9		18.6		0.6	100.0

Note:

^aChi-square = 1.40

^bCould not reject the null hypothesis

^cdf = 2

^d $p < 0.496$

to their quality of life, while 18.6 percent indicated it was important and 0.6 percent indicated it was not important.

Hypothesis 3.11-5 stated that males and females would differ in the levels of importance each attached to being a parent. Table 4.21 displays the data which indicate that the null hypothesis could be rejected using .05 level of probability for making a Type I error. Forty-seven percent of the females indicated that being a parent was very important to their quality of life and 40.0 percent of the males indicated this as very important to their quality of life. Of the females indicating that being a parent was important to their quality of life, 19.2 percent did so while 22.9 percent of the males indicated the same. Thirty-three percent of the females indicated being a parent was not important to their quality of life and 37.0 percent of the males indicated this was not important to their quality of life. A total of 1,010 respondents addressed this item. This number was 95.10 percent of the total 1,062 participants.

According to the findings presented in Table 4.22, the null hypothesis could not be rejected. The research hypothesis 3.11-6 stated that males and females would differ in levels of importance attached to developing and using the mind. A total of 1,047 of the possible 1,062 respondents addressed the item. This was 98.6 percent of the possible respondents.

Males and females were predicted to differ in levels of importance attached to material comforts. Table 4.23 presented the findings for hypothesis 3.11-7. The null hypothesis could not be rejected.

Table 4.21

Male and Female Responses to the Importance of
Being a Parent

Hypothesis 3.11-5 Males and females will differ in levels of importance attached to being a parent.

	Very Important		Important		Not Important		Row Total
	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	
Males	185	40.0	106	22.9	171	37.0	462
Females	261	47.6	105	19.2	182	33.2	548
Column Total	446		211		353		1010
Average Percent		44.2		20.9		34.9	100.0

Note:

^aChi-square = 6.02

^bReject the null hypothesis at $\alpha = .05$

^cdf = 2

^d $p < 0.025$

Table 4.22

Male and Female Responses to the Importance of
Developing and Using the Mind to Their Quality of Life

Hypothesis 3.11-6 Males and females will differ in levels of importance attached to developing and using the mind.

	Very Important		Important		Not Important		Row Total
	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	
Males	323	67.3	143	29.8	14	2.9	480
Females	344	60.7	207	36.5	16	2.8	567
Column Total	667		350		30		1047
Average Percent		63.7		33.4		2.9	100.0

Note:

^aChi-square = 5.30

^bCould not reject the null hypothesis

^cdf = 2

^d $p < 0.071$

Table 4.23

Male and Female Responses to the Importance of
Material Comforts to Their Quality of Life

Hypothesis 3.11-7 Males and females will differ in levels of
importance attached to material comforts.

	Very Important		Important		Not Important		Row Total
	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	
Males	185	38.5	246	51.1	50	10.4	481
Females	181	32.0	322	56.9	63	11.1	566
Column Total	366		568		113		1047
Average Percent		35.5		53.3		10.8	100.0

Note:

^aChi-square = 4.84

^bCould not reject the null hypothesis

^cdf = 2

^d $p < 0.089$

Table 4.24 presents the data which indicated that the null hypothesis 3.11-8 could be rejected using .05 level of probability for making a Type I error. This hypothesis stated that males and females would differ in importance attached to relationships with parents, brothers, sisters, and other relatives. Seventy-one percent of the females indicated this item was very important while 55.2 percent of the males made the same indication. When the options of very important and important were combined, the difference between the two groups was narrowed. Ninety-seven percent of the females indicated that this item was very important or important to their quality of life while 95.4 percent of the males indicated it very important or important to their quality of life.

A total of 1,051 or 99.0 percent of the possible 1,062 responded to this item. This was one of the highest responses to any of the items in the study.

Hypothesis 3.11-9 stated that males and females would differ in levels of importance attached to having close friends. Using .05 level of probability for making a Type I error, the null hypothesis was rejected. Table 4.25 displays the data which indicated this finding. When the options of very important and important were combined and treated as a similar response, the responses did not vary greatly. Seventy-two percent of the females indicated this item to be very important to their quality of life while 61.5 percent of the males indicated the same. Thirty-six percent of the males indicated the item was important to their quality of life, however, while 25.5 percent of the females made

Table 4.24

Male and Female Responses to the Importance of
Relationships with Parents, Brothers, Sisters and
Other Relatives

Hypothesis 3.11-8 Males and females will differ in levels of importance attached to relationships with parents, brothers, sisters, and other relatives.

	Very Important		Important		Not Important		Row Total
	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	
Males	266	55.2	194	40.2	22	4.6	482
Females	409	71.9	144	25.3	16	2.8	569
Column Total	675		338		38		1051
Average Percent		64.2		32.2		3.6	100.0

Note:

^aChi-square = 31.65

^bReject the null hypothesis at $\alpha = .05$

^cdf = 2

^d $p < 0.000$

Table 4.25

Male and Female Responses to the Importance of
Having Close Friends

Hypothesis 3.11-9 Males and females will differ in levels of importance attached to having close friends.

	Very Important		Important		Not Important		Row Total
	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	
Males	295	61.5	173	36.0	12	2.5	480
Females	413	72.7	145	25.5	10	1.8	568
Column Total	708		318		22		1048
Average Percent		67.6		30.3		2.1	100.0

Note:

^aChi-square = 15.03

^bReject the null hypothesis at $\alpha = .05$

^cdf = 2

^d $p < 0.001$

the same indication. When combined, 98.2 percent of the females indicated the item very important or important to their quality of life while 97.5 percent of the males did the same. A total of 1,048 or 98.7 percent of the possible 1,062 respondents addressed this question.

According to the data presented in Table 4.26, the null hypothesis for hypothesis 3.11-10 was rejected using the .05 level of probability for making a Type I error. This hypothesis stated that males and females would differ in levels of importance attached to participating in activities which help or encourage other adults or children. Twenty-nine percent of the females answering the question indicated that it was very important to their quality of life while 25.9 percent of the males made the same indication. Fifty-two percent of the females indicated it was important to their quality of life, while 49.6 percent of the males said that participating in activities which help or encourage other adults or children was important to their quality of life. When the two items, very important and important were combined, there was still a difference between the males and females with 86.2 percent of the females indicating the item very important or important to their quality of life and 75.5 percent of the males indicating the item very important or important to their quality of life. The column of interest on this table is the column indicating "not important." Twenty-four percent of the males indicated that this item was not important to their quality of life, while 17.4 percent of the females indicated that participating in activities which help or encourage other adults or children was not important to their quality of life.

Table 4.26

Male and Female Responses to the Importance of
Participating in Activities Which Help or Encourage
Other Adults or Children

Hypothesis 3.11-10 Males and females will differ in levels of importance attached to participating in activities which help or encourage adults or children.

	Very Important		Important		Not Important		Row Total
	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	
Males	123	25.9	235	49.6	116	24.5	474
Females	167	29.7	298	52.9	98	17.4	563
Column Total	290		533		214		1037
Average Percent		28.0		51.4		20.6	100.0

Note:

^aChi-square = 8.06

^bReject the null hypothesis at $\alpha = .05$

^cdf = 2

^d $p < 0.019$

A total of 98.0 percent of the possible 1,062 participants addressed this item.

Hypothesis 3.11-11 stated that males and females would differ in the levels of importance attached to reading, listening to music, or observing sporting events or entertainment. Table 4.27 presents the findings which indicated the null hypothesis could not be rejected. Participant responses indicated that males considered the item to be very important to their quality of life more than females did. Forty-two percent of the males indicated the item very important to their quality of life, while 38.3 percent of the females indicated the same. When the category of importance was considered, 55.7 percent of the females indicated the item important to their quality of life while 49.9 percent of the males made the same indication. Combining very important and important categories, 94.0 percent of the females indicate the item to be very important or important to their quality of life while 92.0 percent of the males indicate that reading, listening to music, or observing sporting events or entertainment to be very important or important to their quality of life. A total of 98.0 percent of the possible participants in the study answered this item.

The null hypothesis for hypothesis 3.11-12 which predicted that males and females would differ in levels of importance attached to participating in active recreation was accepted using .05 level of probability for making a Type I error, according to the data displayed in Table 4.28. Forty-nine percent of the males responding to this item indicated that it was very important and 41.1 percent of the females

Table 4.27

Male and Female Responses to the Importance of
Reading, Listening to Music, or Observing Sporting
Events or Entertainment to Their Quality of Life

Hypothesis 3.11-11 Males and females will differ in levels of importance attached to reading, listening to music, or observing sporting events or entertainment.

	Very Important		Important		Not Important		Row Total
	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	
Males	200	42.4	237	50.0	37	7.8	474
Females	216	38.3	314	55.7	34	6.0	564
Column Total	416		551		71		1038
Average Percent		40.0		53.1		6.8	100.0

Note:

^aChi-square = 3.73

^bCould not reject the null hypothesis

^cdf = 2

^d $p < 0.178$

Table 4.28

Male and Female Responses to the Importance of
Importance of Participating in Active Recreation

Hypothesis 3.11-12 Males and females will differ in levels of importance attached to participating in active recreation.

	Very Important		Important		Not Important		Row Total
	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	
Males	235	49.1	214	44.7	30	6.3	479
Females	233	41.1	284	50.1	50	8.8	567
Column Total	468		498		80		1046
Average Percent		44.7		47.6		7.6	100.0

Note:

^aChi-square = 7.48

^bReject the null hypothesis at $\alpha = .05$

^cdf = 2

^d $p < 0.029$

responding to the item made the same indication. When the categories of very important and important were combined, 93.8 percent of the males indicated the item was very important or important to their quality of life and 91.2 percent of the females indicated that participating in active recreation was very important or important to their quality of life. A total of 98.5 percent of the possible 1,062 responded to this item.

According to the data presented in Table 4.29, research hypothesis 3.11-13 could be accepted using .05 level of probability for making a Type I error. The hypothesis stated that males and females would differ in levels of importance attached to self expression through music, art, writing, photography, practical activities, or in leisure time activities. Forty-two percent of the females indicated this item was very important to their quality of life while 32.8 percent of the males made the same indication. Forty-eight percent of the males indicated that the item was important to their quality of life and 47.0 percent of the females indicated the same. Eighteen percent of the males, however, indicated the item was not important to their quality of life, while only 10.7 percent of the females indicated that such activities were not important to their quality of life.

The total responding to this item was 98.5 percent of the possible 1,062. This was the same percentage that responded to the previous item.

The data displayed in Table 4.30 indicated that the research hypothesis 3.11-14 could be accepted using .05 level of probability for

Table 4.29

Male and Female Responses to the Importance of
Self Expression Through Music, Art, Writing, Photography,
Practical Activities, or in Leisure Time Activities
To the Quality of Life

Hypothesis 3.11-13 Males and females will differ in levels of importance attached to self expression through music, art, writing, photography, practical activities, or in leisure time activities.

	Very Important		Important		Not Important		Row Total
	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	
Males	157	32.8	233	48.7	88	18.4	478
Females	240	42.3	267	47.0	61	10.7	568
Column Total	397		500		149		1046
Average Percent		38.0		47.8		14.5	100.0

Note:

^aChi-square = 16.94

^bReject the null hypothesis at $\alpha = .05$

^cdf = 2

^d $p < 0.000$

Table 4.30

Male and Female Responses to the Importance of
Socializing to Quality of Life

Hypothesis 3.11-14 Males and females will differ in levels of importance attached to socializing.

	Very Important		Important		Not Important		Row Total
	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	
Males	148	31.0	254	53.1	76	15.9	478
Females	213	37.4	296	53.0	60	10.0	569
Column Total	361		550		136		1047
Average Percent		34.5		52.5		13.0	100.0

Note:

^aChi-square = 8.95

^bReject the null hypothesis at $\alpha = .05$

^cdf = 2

^d $p < 0.011$

making a Type I error. The hypothesis stated that males and females would differ in levels of importance attached to socializing. Thirty-seven percent of the females indicated socializing was very important to their quality of life while 31.0 percent of the males made the same indication. Fifty-three percent of the males indicated the item important to their quality of life and 52.0 percent of the females indicated socializing important to their quality of life. Fifteen percent of the males indicated that socializing was not important to their quality of life. Ten percent of the females indicated the item was not important. When very important and important responses were combined, 89.4 percent of the females indicated that socializing was very important or important to their quality of life and 84.1 percent of the males made the same indication.

Table 4.31 presents the data that indicated that the research hypothesis 3.11-15 could be accepted using .05 level of probability for making a Type I error. This hypothesis stated that males and females would differ in levels of importance attached to participating in activities related to local government or national government. Even when the responses given to very important and important categories were combined, a difference still existed. Males indicated the item very important or important at a higher rate than females. Fifty-six percent of the males responding to the item indicated it was very important or important to their quality of life, while 47.1 percent of the females did the same. A total of 98.6 percent of the possible 1,062 respondents addressed both items 3.11-14 and 3.11-15.

Table 4.31

Male and Female Responses to the Importance of
Participating in Activities Related to
Local or National Government

Hypothesis 3.11-15 Males and females will differ in levels of importance attached to participating in activities related to local or national government.

	Very Important		Important		Not Important		Row Total
	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	
Males	63	13.2	205	43.0	209	43.8	477
Females	47	8.3	219	38.8	299	52.9	565
Column Total	110		424		508		1047
Average Percent		10.6		40.7		48.8	100.0

Note:

^aChi-square = 11.38

^bReject the null hypothesis at $\alpha = .05$

^cdf = 2

^d $p < 0.003$

Responses to Satisfaction with Fifteen Indicators of Quality of Life

In the population studied, it was predicted that there would be differences between male and female levels of satisfaction with the fifteen indicators of the quality of life. Hypothesis 3.21-1 stated that males and females would differ in degrees of satisfaction attached to physical and mental health. The data displayed in Table 4.32 indicated the null hypothesis could not be rejected. A total of 98.1 percent of the possible 1,062 responded to the question regarding satisfaction with physical and mental health.

Table 4.33 displays the data that indicated the null hypothesis could be rejected using the .05 level of probability for making a Type I error. The hypothesis stated that males and females would differ in degrees of satisfaction attached to a close relationship with a spouse. Females indicated higher levels of satisfaction and less dissatisfaction in close relationships with their spouse than did males. Fifty percent of the females indicated they were very satisfied with these relationships, while 38.8 percent of the males indicated they were very satisfied with their close relationships with their spouses. A total of 97.5 percent of the possible 1,062 participants responded to the item regarding a close relationship with a spouse.

Hypothesis 3.21-3 stated that males and females would differ in degrees of satisfaction attached to work. Table 4.34 displays the data that indicates the null hypothesis could not be rejected using the .05 level of probability for making a Type I error.

Table 4.32

Male and Female Responses to Satisfaction
with Physical and Mental Health

Hypothesis 3.21-1 Males and females will differ in degrees of satisfaction attached to physical and mental health.

	Very Satisfied		Satisfied		Dissatisfied		Very Dissatisfied		Row Total
	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	
Males	127	26.6	279	58.5	65	13.6	6	1.3	477
Females	129	22.8	327	57.9	102	18.1	7	1.2	565
Column Total	256		606		167		13		1042
Average Percent		24.6		58.2		16.0		1.2	100.0

Note:

^aChi-square = 4.69

^bCould not reject the null hypothesis

^cdf = 3

^dp < 0.196

Table 4.33

Male and Female Responses to Satisfaction
with a Close Relationship with a Spouse

Hypothesis 3.21-2 Males and females will differ in degrees of satisfaction attached to physical and mental health.

	Very Satisfied		Satisfied		Dissatisfied		Very Dissatisfied		Row Total
	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	
Males	184	38.8	182	38.4	85	17.9	23	4.9	474
Females	286	50.9	188	33.5	76	13.5	11	2.4	561
Column Total	470		370		161		34		1035
Average Percent		45.4		35.7		15.5		3.3	100.0

Note:

^aChi-square = 2.00

^bReject the null hypothesis at $\alpha = .05$

^cdf = 3

^d $p < 0.000$

Table 4.34

Male and Female Responses to Satisfaction
with Work

Hypothesis 3.21-3 Males and females will differ in degrees of satisfaction attached to work.

	Very Satisfied		Satisfied		Dissatisfied		Very Dissatisfied		Row Total
	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	
Males	137	29.8	219	47.6	81	17.6	23	5.0	460
Females	157	28.0	290	51.8	93	16.6	19	3.4	559
Column Total	294		509		174		42		1019
Average Percent		28.8		49.8		17.0		4.1	100.0

Note:

^aChi-square = 2.88

^bCould not reject the null hypothesis

^cdf = 3

^d $p < 0.254$

Table 4.35 displays the data that indicates the null hypothesis for research hypothesis 3.21-4 could not be rejected. The research hypothesis stated that there would be differences between males and females in degrees of satisfaction attached to the development of maturity. Ninety-six percent of the possible respondents answered the item related to hypothesis 3.21-3 and close to 97 percent addressed the item related to hypothesis 3.21-4.

According to the data displayed in Table 4.36, the null hypothesis for research hypothesis 3.21-5 was rejected using .05 level of probability for making a Type I error. The hypothesis stated that males and females would differ in the degrees of satisfaction attached to being a parent. When the categories of very satisfied and satisfied were combined and the responses grouped, 92.8 percent of the females indicated they were very satisfied or satisfied with being a parent while 89.6 percent of the males indicated the same degrees of satisfaction. Looking at the categories, individually, females indicated they were very satisfied at a higher rate than males with 45.9 percent of the females indicating this choice while 34.8 percent of the males made the same indication. Fifty-five percent of the males indicated they were satisfied, while 46.9 percent of the females made this choice. Dissatisfaction was highest among males, with 10.1 percent of the males indicating they were dissatisfied or very dissatisfied with the quality of their life related to being a parent, while 7.2 percent of the females made a similar indication. Close to 82.7 percent of the possible respondents answered the item related to hypothesis 3.11-5.

Table 4.35

Male and Female Responses to Satisfaction
with Developing Maturity

Hypothesis 3.21-4 Males and females will differ in degrees of satisfaction attached to developing maturity.

	Very Satisfied		Satisfied		Dissatisfied		Very Dissatisfied		Row Total
	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	
Males	134	28.4	283	59.9	53	11.2	3	0.6	472
Females	146	59.8	335	59.8	72	12.9	7	1.3	560
Column Total	280		618		125		10		1032
Average Percent		27.1		59.8		12.1		1.0	100.0

Note:

^aChi-square = 4.21

^bCould not reject the null hypothesis

^cdf = 3

^d $p < 0.351$

Table 4.36

Male and Female Responses to Satisfaction
with Being a Parent

Hypothesis 3.21-5 Males and females will differ in levels of satisfaction attached to being a parent.

	Very Satisfied		Satisfied		Dissatisfied		Very Dissatisfied		Row Total
	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	
Males	141	34.8	222	54.8	36	8.8	6	1.5	405
Females	217	45.9	222	46.9	27	5.7	7	1.5	473
Column Total	358		444		63		13		878
Average Percent		40.6		50.5		7.2		1.5	100.0

Note:

^aChi-square = 12.30

^bReject the null hypothesis at $\alpha = .05$

^cdf = 3

^d $p < 0.015$

Research hypothesis 3.21-6 stated that males and females would differ in degrees of satisfaction attached to developing and using the mind. Using the .05 level of probability for making a Type I error, the null hypothesis could not be rejected. Table 4.37 displays the data in which 98.0 percent of the possible 1,062 respondents indicated how satisfied they were with developing and using their mind. A total of 21.5 percent of the 1,040 who responded to the item indicated they were very satisfied with this aspect of their life. Fifty-seven percent of the respondents indicated they were satisfied with this component, while 20.3 percent indicated dissatisfaction and 1.0 percent indicated they were very dissatisfied. Differences between males and females did not vary more than several percentage points in any category.

Table 4.38 displays the data which indicated that the null hypothesis for research hypothesis 3.21-7 was rejected using the .05 level of probability for making a Type I error. The hypothesis stated that males and females would differ in degrees of satisfaction attached to material comforts. Females indicated higher degrees of satisfaction while males indicated higher degrees of dissatisfaction. Twenty-seven percent of the females indicated they were very satisfied with the component related to material comforts while 61.8 percent expressed satisfaction with this aspect of their life. Of the females indicating dissatisfaction with material comforts, 9.3 percent did so while 1.6 percent indicated they were very dissatisfied with aspects of their lives related to material comforts. Males indicated they were very satisfied at a rate of 20.4 percent, while 60.1 percent of those responding to the item indicated

Table 4.37

Male and Female Responses to Satisfaction
with Developing and Using the Mind

Hypothesis 3.21-6 Males and females will differ in degrees of satisfaction attached to developing and using the mind.

	Very Satisfied		Satisfied		Dissatisfied		Very Dissatisfied		Row Total
	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	
Males	111	23.4	262	55.3	99	20.9	2	0.4	474
Females	113	20.0	333	58.8	112	19.8	8	1.4	566
Column Total	224		595		211		10		1040
Average Percent		21.5		57.2		20.3		1.0	100.0

Note:

^aChi-square = 4.79

^bCould not reject the null hypothesis

^cdf = 3

^d $p < 0.188$

Table 4.38

Male and Female Responses to Satisfaction
with Material Comforts

Hypothesis 3.21-7 Males and females will differ in degrees of satisfaction attached to material comforts.

	Very Satisfied		Satisfied		Dissatisfied		Very Dissatisfied		Row Total
	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	
Males	97	20.4	286	60.1	84	17.6	9	1.9	476
Females	153	27.3	346	61.8	52	9.3	9	1.6	560
Column Total	250		632		136		18		1036
Average Percent		24.1		61.0		13.1		1.7	100.0

Note:

^aChi-square = 19.08

^bReject the null hypothesis at $\alpha = .05$

^cdf = 3

^d $p < 0.000$

they were satisfied and 17.6 percent indicated they were dissatisfied. A total of 1.9 percent of the males indicated they were very dissatisfied with material comforts. Ninety-eight percent of the possible 1,062 respondents addressed this item.

The null hypothesis for research hypothesis 3.21-8 indicated that males and females would differ in degrees of satisfaction attached to the component related to relationships with parents, brothers, sisters, and other relatives. Table 4.39 displays the data which indicated the null hypothesis was rejected using the .05 level of probability for making a Type I error. Ninety-eight percent of the possible 1,062 respondents in this study addressed this item in which females indicated they were very satisfied with this component at a rate of 44.8 percent while males indicated they were very satisfied at the rate of 32.8 percent.

According to the data presented in Table 4.40, the null hypothesis for research hypothesis 3.21-9 could be rejected using the .05 level of probability for making a Type I error. This hypothesis stated that males and females would differ in degrees of satisfaction attached to aspects of quality of life related to having close friends. Forty-one percent of the females indicated they were very satisfied with this aspect of their life, while 29.0 percent of the males made the same indication. When the two areas of very satisfied and satisfied were combined, 98.2 percent of the females were in this category, while 97.5 percent of the males indicated either very satisfied or satisfied with aspects of their lives related to having close friends. A total of 98.0

Table 4.39

Male and Female Responses to Satisfaction
with Relationships with Parents, Brothers,
Sisters and other relatives

Hypothesis 3.21-8 Males and females will differ in degrees of satisfaction attached to relationships with parents, brothers, sisters, and other relatives.

	Very Satisfied		Satisfied		Dissatisfied		Very Dissatisfied		Row Total
	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	
Males	156	32.8	270	56.7	47	9.9	3	0.6	476
Females	254	44.8	250	44.1	55	9.7	7	1.2	566
Column Total	410		520		102		10		1042
Average Percent		39.3		49.9		9.8		1.0	100.0

Note:

^aChi-square = 18.80

^bReject the null hypothesis at $\alpha = .05$

^cdf = 3

^d $p < 0.001$

Table 4.40

Male and Female Responses to Satisfaction
with Close Friends

Hypothesis 3.21-9 Males and females will differ in degrees of satisfaction attached to having close friends.

	Very Satisfied		Satisfied		Dissatisfied		Very Dissatisfied		Row Total
	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	
Males	138	29.0	277	58.3	54	11.3	6	1.3	475
Females	237	41.9	259	45.8	65	11.5	4	0.7	565
Column Total	375		536		119		10		1040
Average Percent		36.0		51.5		11.4		1.0	100.0

Note:

^aChi-square = 20.52

^bReject the null hypothesis at $\alpha \leq .05$

^cdf = 3

^d $p < 0.001$

percent of the possible 1,062 respondents in the study addressed this item.

The next research hypothesis, 3.21-10, stated that males and females would differ in degrees of satisfaction attached to participating in activities which help or encourage other adults or children. According to the data presented in Table 4.41, the null hypothesis could not be rejected using .05 level of probability for making a Type I error. A total of 96.0 percent of the possible 1,062 participants responded to this item.

Table 4.42 displayed the data for research hypothesis 3.21-11 in which males and females were predicted to differ in degrees of satisfaction attached to reading, listening to music, or observing a sporting event. Again, male and female responses did not differ greatly and the null hypothesis could not be rejected using the .05 level of probability for making a Type I error. Indications of satisfaction were above 90.0 percent when the responses to the columns of very satisfied and satisfied were combined. A total of 1,032 or 97.0 percent of the possible 1,062 respondents in the study addressed this item.

Research hypothesis 3.21-12 stated that males and females would differ in degrees of satisfaction attached to participating in active recreation. Table 4.43 presented the data testing this hypothesis. Again, male and female responses did not differ greatly and the null hypothesis could not be rejected using the 0.5 level of probability for making a Type I error. Over 15.0 percent of those responding to the item indicated they were dissatisfied or very dissatisfied with this

Table 4.41

Male and Female Responses to Satisfaction
with Participating in Activities Which Help
or Encourage Other Adults or Children

Hypothesis 3.21-10 Males and females will differ in degrees of satisfaction attached to participating in activities which help or encourage other adults or children.

	Very Satisfied		Satisfied		Dissatisfied		Very Dissatisfied		Row Total
	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	
Males	53	11.4	306	65.8	101	21.7	5	1.1	465
Females	80	14.5	341	61.7	126	22.8	6	1.1	553
Column Total	133		647		227		11		1018
Average Percent		13.1		63.6		22.3		1.1	100.0

Note:

^aChi-square = 2.63

^bCould not reject the null hypothesis

^cdf = 3

^d $p < 0.452$

Table 4.42

Male and Female Responses to Satisfaction
with Reading, Listening to Music or
Observing Sporting Events or Entertainment

Hypothesis 3.21-11 Males and females will differ in degrees of satisfaction attached to reading, listening to music or observing a sporting event.

	Very Satisfied		Satisfied		Dissatisfied		Very Dissatisfied		Row Total
	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	
Males	152	32.2	275	58.2	43	9.1	2	0.4	472
Females	188	33.6	327	58.4	42	7.5	3	0.5	560
Column Total	340		602		85		5		1032
Average Percent		32.9		58.3		8.2		0.5	100.0

Note:

^aChi-square = 2.19

^bCould not reject the null hypothesis

^cdf = 3

^d $p < 0.698$

Table 4.43

Male and Female Responses to Satisfaction
with Participating in Active Recreation

Hypothesis 3.21-12 Males and females will differ in degrees of satisfaction attached to participation in active recreation.

	Very Satisfied		Satisfied		Dissatisfied		Very Dissatisfied		Row Total
	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	
Males	145	30.5	249	52.4	76	16.0	5	1.1	475
Females	134	23.8	319	56.8	106	18.9	3	0.5	562
Column Total	279		568		182		8		1037
Average Percent		26.9		54.8		17.6		0.8	100.0

Note:

^aChi-square = 7.26

^bCould not reject the null hypothesis

^cdf = 3

^d $p < 0.064$

aspect of their life. The total number responding to this item was 1,037 or 98.0 percent of the total 1,062 who participated in the study.

Table 4.44 presented the data for research hypothesis 3.21-13 which stated that males and females would differ in degrees of satisfaction attached to self expression. Differences between male and female responses were not large and the null hypothesis again could not be rejected. A total of 1,034 or 97.4 percent of the possible 1,062 responded to this item. Over 23.0 percent of the participants in the study responded that they were dissatisfied or very dissatisfied with this aspect of their lives.

Research hypothesis 3.21-14 stated that males and females would differ in degrees of satisfaction attached to socializing. Table 4.45 presented the data which indicated the null hypothesis could not be rejected using the .05 level of probability for making a Type I error. A total of 1,038 participants responded to the item and of this number more than 15.0 percent indicated they were dissatisfied or very dissatisfied with the component.

Hypothesis 3.21-15 stated that males and females would differ in degrees of satisfaction attached to participating in activities related to local or national government. Table 4.46 displayed the data which indicated that the null hypothesis could be rejected. A total of 1,009 participants responded to this item. This was 95.0 percent of the possible 1,062 who took part in the total study. Males and females indicating they were very satisfied with this component did so at the same rate, with 11.9 percent of the males indicating they were very

Table 4.44

Male and Female Responses to Satisfaction
with Self Expression Through Music, Art, Writing,
Photography, Practical Activities or in
Leisure Time Activities

Hypothesis 3.21-13 Males and females will differ in degrees of satisfaction attached to self expression.

	Very Satisfied		Satisfied		Dissatisfied		Very Dissatisfied		Row Total
	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	
Males	71	15.0	285	60.3	111	23.5	6	1.3	473
Females	120	21.4	311	55.4	121	21.6	9	1.6	561
Column Total	191		596		232		15		1034
Average Percent		18.5		57.6		22.4		1.5	100.0

Note:

^aChi-square = 7.29

^bCould not reject the null hypothesis

^cdf = 3

^d $p < 0.063$

Table 4.45

Male and Female Responses to Satisfaction
with Socializing

Hypothesis 3.21-14 Males and females will differ in degrees of satisfaction attached to socializing.

	Very Satisfied		Satisfied		Dissatisfied		Very Dissatisfied		Row Total
	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	
Males	80	16.8	300	63.2	84	17.7	11	2.3	475
Females	124	22.0	339	60.2	91	16.2	9	1.6	563
Column Total	204		639		175		20		1038
Average Percent		19.7		61.6		16.9		1.9	100.0

Note:

^aChi-square = 4.92

^bCould not reject the null hypothesis

^cdf = 3

^d $p < 0.177$

Table 4.46

Male and Female Responses to Satisfaction
with Participation in Activities Related to
Local or National Government

Hypothesis 3.21-15 Males and females will differ in degrees of satisfaction attached to participating in activities related to local or national government.

	Very Satisfied		Satisfied		Dissatisfied		Very Dissatisfied		Row Total
	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	
Males	55	11.9	259	55.5	130	27.9	22	4.7	466
Females	61	11.2	346	63.7	122	22.5	14	2.6	543
Column Total	116		605		252		36		1009
Average Percent		11.5		59.9		25.0		3.6	100.0

Note:

^aChi-square = 9.03

^bReject the null hypothesis at $\alpha = .05$

^cdf = 3

^d $p < 0.037$

satisfied and 11.2 percent of the females making the same indication. A total of 55.5 percent of the males indicated they were satisfied with this aspect of their lives while 63.7 percent of the females made the same indication. Dissatisfaction indications were above 25.0 percent for both males and females. Twenty-eight percent of the males indicated dissatisfaction with this component and 4.7 indicated they were very dissatisfied. Twenty-two percent of the females indicated they were dissatisfied with activities related to local or national government and 2.6 percent indicated they were very dissatisfied. Twenty-eight percent of the total responding to the item indicated dissatisfaction with this aspect of their lives.

Responses to Quality of Life Items Related to Marital and Family Status

To complete a picture of the male and female high school graduates from the Cedar Rapids high schools so that differences between satisfaction with the life experience can be understood, data were also gathered on marital status and number of children.

Hypothesis 3.31 stated that males and females would differ in marital status. Table 4.47 presented the data which indicated that the null hypothesis should be rejected using .05 level of probability for make a Type I error. A total of 99.5 percent of the 1,062 participants indicated their marital status and it was possible to classify them in one of four categories: single, married, separated, or divorced. A larger percentage of the male graduates were single with approximately 57.1 percent indicating single status. Close to 47.2 percent of the

Table 4.47

A Comparison of Male and Female Marital Status
Categorized by Single, Married, Separated, and Divorced

Hypothesis 3.31 Males and females will differ in marital status.

	Single		Married		Separated		Divorced		Row Total
	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	
Males	278	57.1	190	39.0	2	0.4	17	3.5	487
Females	269	47.2	274	48.1	8	1.4	19	3.3	570
Column Total	547		464		10		36		1057
Average Percent		51.8		43.9		0.9		3.4	100.0

Note:

^aChi-square = 12.63

^bReject the null hypothesis at $\alpha = .05$

^cdf = 3

^d $p < 0.001$

females indicated single status. Thirty-nine percent of the males were married while 48.1 percent of the females indicated they were married. A total of 51.8 percent of those in the study were single while 43.9 percent were married. Only ten persons indicated they were separated and 0.4 percent of those were males while 1.4 percent were females. A total of 36 or 3.4 percent of the persons in the study were divorced with 3.5 percent of the males making this indication and 3.3 percent of the females making the same indication.

Research hypothesis 3.32 stated that there would be differences between males and females in numbers of children each had. Of those who were married, 249 indicated they had one, two or three children. Table 4.48 displayed the data which indicated that the null hypothesis could not be rejected using the .05 level of probability for making a Type I error. While a greater number of women indicated they had one or more children, the percentages between the two groups was not very great. Of those indicating they had children, 154 were females and 95 were males. Fifty-five males indicated they had one child while 91 females made the same indication. Thirty-three males indicated they had two children while 59 females made the same indication. Seven males indicated they had three children while four females indicated three or more children. The 249 participants who indicated they had children constituted 23.44 percent of the total 1,062.

Table 4.48

A Comparison of Male and Female Family Size
Categorized by Number of Children

Hypothesis 3.32 Males and females will differ in the number of children in the family.

	One Child		Two Children		Three Children		Row Total
	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	
Males	55	57.9	33	34.7	7	7.4	95
Females	91	59.1	59	38.3	4	2.6	154
Column Total	146		92		11		249
Average Percent		48.6		36.9		4.4	100.0

Note:

^aChi-square = 3.24

^bCould not reject the null hypothesis

^cdf = 2

^d $p < 0.197$

Summary

This chapter presented an analysis of the data comparing male and female responses from the Career Education Follow-up Questionnaire (Appendix B). Hypotheses related to career preparation and planning were presented first followed by hypotheses concerning job satisfaction and finally those related to quality of life.

Using the .05 level of probability for making a Type I error, each hypothesis was tested using the chi-square test. Tables displaying the data for each hypothesis also indicated whether or not the null hypothesis could be rejected.

Career Preparation and Planning

The hypotheses related to career preparation and planning were divided into two categories. The first set of hypotheses predicted that differences would be found between males and females in the population studied regarding the amount of education, level of training, employment status, and employment position. Differences were found when one or more chi-square tests were used to test the hypotheses related to the above listed areas. Differences were found between males and females when questions were asked regarding future employment expectations, educational attainment, level of training, and level of responsibility expected in the future position.

The second set of hypotheses related to career preparation and planning predicted that differences would be found regarding male and female five-year plans and long-range career plans. Using the .05 level

of probability for making a Type I error, the null hypotheses regarding five-year plans and long-range career plans were rejected.

Job Satisfaction

The data analyzed regarding job satisfaction did not reveal differences between males and females in job satisfaction and the null hypothesis was retained.

Quality of Life

Three aspects of the quality of life were measured, one asking for an indication of how important each of fifteen components from the life experience was to the participant's quality of life. The second aspect of this part of the study asked for the participant to indicate the degree of satisfaction or dissatisfaction he or she was experiencing regarding each of the fifteen components. Table 4.49 summarizes these findings.

Hypotheses were generated for each of the fifteen components for importance levels and for degrees of satisfaction. The data displayed concerning the importance of the components to the quality of life indicated that differences between what was important to males and what was important to females in the study were great enough to accept 9 of the 15 research hypotheses. The nine areas were those involving relationships with a spouse, parents, brothers, sisters, and other relatives; having close friends; being a parent; participating in activities which help or encourage adults or children; participating in active recreation; self expression; socializing; and in participating in activities related

Table 4.49

Cedar Rapids Career Education Follow-up Study Ratings of the
Fifteen Components of the Quality of Life

Component	Percent Reporting Important or Very Important			Percent Reporting Satisfied or Very Satisfied		
	Total	Males	Females	Total	Males	Females
1. Physical and Mental Health	99.6	99.8	99.5	82.9	85.1	80.7
2. Developing Maturity	98.9	98.2	99.6	87.0	88.1	80.7
3. Close Friends	*97.9	97.5	98.2	*87.5	87.2	87.7
4. Work	97.3	96.8	97.9	78.5	77.4	79.5
5. Developing the Mind	96.9	96.6	97.2	79.0	78.7	78.8
6. Relationships with Relatives	*96.3	95.4	97.2	*89.2	89.5	88.9
7. Close Relationship with a Spouse	*95.2	95.3	95.2	*81.9	77.2	84.4
8. Reading, Listening to Music, Observing a Sporting Event	93.0	92.0	94.0	91.2	90.3	92.0
9. Active Recreation	*92.0	93.8	91.2	81.9	82.9	80.6

Table 4.49 continued

10. Material Comforts	89.2	89.6	88.9	*84.8	80.5	89.1
11. Socializing	*86.7	84.1	89.1	81.1	80.0	82.2
12. Self Expression	*85.4	81.5	89.3	76.0	75.3	76.8
13. Activities which Help or Encourage other Adults or Children	*80.9	75.5	86.2	76.7	77.2	76.2
14. Being a Parent	*65.0	62.9	66.8	*86.2	89.6	92.8
15. Participation in Activities Related to Government	*54.0	56.2	47.1	*71.1	67.3	74.9

Note: See Appendix B for a complete description of each component.

^aThe asterisk indicates those areas in which the responses of males and females differed enough to reject the null hypothesis.

to local or national government. The responses of the males and females in the population studied were most alike for components related to physical and mental health; work; developing maturity; developing and using the mind; participating in activities which help or encourage other adults or children; reading, listening to music or observing sporting events; participating in active recreation; self expression through music, art, writing, photography, practical activities, or in leisure time activities; socializing.

The third area of investigation involved marital status and children. The hypotheses predicted there would be differences in marital status between the male and female graduates and that there would also be differences in family size between the two groups. A larger number and percentage of males were single while a larger number and percentage of females were married. The differences were large enough to allow the null hypothesis to be rejected. The null hypothesis regarding differences in family size could not be rejected. More females indicated they had children but the percentages between the number of children in the family of the females and the number of children in the family of males was not large enough to allow the null hypothesis to be rejected.

It should be noted that some participants did not complete all areas of the questionnaire. In other cases, responses could not be categorized due to programming technicalities. For all of the hypotheses the response rate was high enough, however, that the non-respondents for

a particular item would most likely not have made any difference, no matter how they responded.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

The purpose of this study was to investigate, in a field situation, the career plans, job satisfaction levels, and the importance of and satisfaction with quality of life of the graduates of the Cedar Rapids, Iowa, public schools, classes of 1968, 1971, and 1974. The study then sought to compare the responses of the male and female participants in an effort to determine if there were differences between males and females in the establishment of career plans, preparation for careers, finding work the individual considered to be satisfying or in the pursuit of goals important to that individual. Data were collected testing hypotheses in three areas, career planning, job satisfaction, and quality of life. Participants responded to a Career Education Follow-up Questionnaire (Appendix B) which sought information regarding present and future career plans and employment, job satisfaction, and which asked for an indication of levels of importance and degrees of satisfaction with fifteen components identified as indicators of quality of life, in addition to other items.

The responses were analyzed by the Statistical Package for the Social Sciences (SPSS) on computers at the University of Iowa, Iowa City, Iowa, computer center.

Since the main interest of the study was to determine if there were differences between the male and female respondents, the chi-square test of significance was used to determine whether hypotheses related to career preparation and planning, job satisfaction and the quality of life could be accepted using the .05 level of probability for making a Type I error. The nature of the study fit the requirement outlined by a number of researchers for using this test.

A total of 2,430 questionnaires was sent to high school graduates, class of 1968, 1971, and 1974 from the Cedar Rapids, Iowa, Community Schools. Of the 1,104 questionnaires that were returned by the graduates, 1,062 were used in this study. Table 3.5 displayed the data which indicated the number of male and female respondents in the total study by year. The sample of 1,062 used in this study represented 25.48 percent of the larger population. A total of 46.0 percent of the participants in the survey were female, and a total of 54.0 percent of the participants were male. This was close to the 50 - 50 balance the researchers had hoped to achieve.

The instrument used in the study was a Career Education Follow-up Questionnaire developed by the Cedar Rapids, Iowa, Community Schools in conjunction with the community of Cedar Rapids, Iowa. The development of this instrument included a committee of teachers, administrators, counselors, parents, and students and was coordinated by the Department of Research Services and Department of Guidance. The instrument yielded more data than was needed for this study, and these data will be analyzed in other studies being done concurrently with this study.

Of the 1,062 responses used in this study, 489 or 46.0 percent were from males and 573 or 54.0 percent were from females. At least half of the participants in this study, or 51.8 percent, were single; 90 percent had some college education, if not a degree, or had had some additional training beyond college or in preparation for the position they held at the time of the survey. Sixty-seven percent of the participants were working full-time. Of those working full-time a larger percentage were males. Of those working in any position part-time or full-time, 32.9 percent had been working at the same job for 36 months or more and were in positions considered appropriate for members of their sex. Sixty percent of the participants lived in or near Cedar Rapids, another 15.4 percent lived in the State of Iowa, indicating these participants were representative of the total community. They were satisfied with their jobs and indicated satisfaction with most of the components measuring their quality of life. A majority of the participants had five year career plans and/or long-range career plans. The participants also indicated they did not expect to be doing the same work five years from now, with more females than males making this choice.

The following sections summarize specific findings related to the areas of career planning and preparation, job satisfaction, and the quality of life.

Career Preparation and Planning

A review of the literature regarding career placement and planning revealed some sharp contrasts between males and females. The data gathered for this study supported the findings in the literature in many instances. Differences were found between male and female levels of training, education, status of employment and employment patterns. There were differences between the literature and the participants in this study with regard to finding satisfying employment and job satisfaction for both males and females.

Males were found to have more education than females; to have jobs that require more training, and to be in positions that require higher degrees of responsibility. While the same percentages of males and females were in school currently, more males had bachelor degrees, went on to graduate school and had graduate degrees.

A higher percentage of males were fully employed and a higher percentage of females were unemployed or had part-time positions. In terms of the type of position currently held by the participant, more males were employed in positions appropriate for members of the same sex than were females. The largest percentage of males were found in positions related to manufacturing while the largest percentage of females were found in positions related to business-office type of employment. A larger percentage of females than males planned to seek employment in positions considered appropriate for either sex or for the other sex. Females expected to increase levels of responsibility but more males than females expected to have positions requiring very

much responsibility. Females also expected to be in positions requiring much or very much training at a higher rate than males.

Females indicated a greater willingness and desire to move into positions considered to be appropriate for males than did males indicate a willingness to move into female typed positions. As was the case in a number of recent studies, females were found to be more willing to move out of positions traditionally typed for females than were males willing to move out of positions traditionally typed for males only.

Differences were also found in the nature of the five-year career plans of the males and females as well as with the long-range career plans. More males had plans to be doing the same work five years from now than did females while a larger percentage of females indicated plans for doing different work when compared to the males. Males also expressed a higher degree of uncertainty about what they would be doing in five years when compared to females.

In terms of long-range career plans, a larger percentage of males than females had such plans.

Job Satisfaction

With regard to satisfaction with work, a slightly higher percentage of females were satisfied with their present positions than were males, but satisfaction with present positions reached above 65 percent of those sampled for both males and females, with dissatisfaction levels falling below 30 percent for both males and females surveyed. Four percent of the males and an equal percentage of females indicated some

uncertainty about being either satisfied or dissatisfied with their present position. No differences between the two groups were found.

Quality of Life

A review of selected literature indicated mixed and sometimes conflicting evidence regarding the various aspects of quality of life. When findings from various studies were compared, greater differences were found within groups than between the males and females. (Bernard, 1974) (Guttentag and Salasin, 1975) (Campbell, Converse, and Rodgers, 1976)

Data regarding the importance of fifteen components used to measure the quality of life were first analyzed. Data regarding levels of satisfaction with each of the fifteen components was analyzed next.

In this study, both males and females considered physical and mental health to be the most important component of the quality of life. More than 98 percent of the participants indicated this component to be either important or very important to their quality of life. Next in order of importance was developing maturity. Again, more than 98 percent of the participants indicated this to be important or very important to their quality of life. The third most important area, for both males and females, was close friends. This included sharing activities, interests, and views, being accepted, visiting, giving and receiving help, love, trust, support and guidance. The percentages were above 97 percent for those responding to this item in the very important or important categories. The fourth area of importance was the area

related to work, again for both males and females. Percentages of those ranking this very important or important were above 96 percent. Surprising was the finding that more females than males indicated that work was very important to their quality of life even though the difference was within several percentage points and the null hypothesis which stated there would not be differences between the males and females could not be rejected. A search of the literature indicated this finding would show differences and that men were more likely to indicate work important or very important to their quality of life than were women.

The next most important aspect of quality of life to both males and females was developing and using the mind through learning, attending school, improving understanding or acquiring additional knowledge. This area tied in rank with relationships with parents, brothers, sisters and other relatives for the females. Ninety-seven percent of the female respondents indicated these two categories were very important or important to their quality of life, while 96 percent of the males considered developing and using the mind to be important to their quality of life.

Close relationships with a spouse; reading and listening to music or observing a sporting event or entertainment; participating in active recreation were seventh, eighth and ninth on the list of both males and females and were indicated as being important by more than 90 percent of both the males and the females.

Having material comforts, socializing, expressing oneself in a creative manner were the next three items, and in terms of being

important or very important, more than 80 percent of the participants indicated such was the case.

Females responding to the items indicated that participating in activities which help or encourage other adults or children was of importance or very important to them but males did not attach as much importance to this item. Eighty-six percent of the females indicated this was important or very important while 75 percent of the males did the same.

The participants in this study ranked being a parent as one of the least important components to their quality of life. Sixty-two percent of the males indicated this as important or very important and 66 percent of the females did the same. Lower still was the area related to participating in activities related to local or national government.

The participants in the study were not asked to rank the fifteen items in terms of importance but to respond to each item in terms of whether or not the item was important or not important to their quality of life. Each participant was also asked to respond to each of the fifteen components in terms of level of satisfaction. A summary of the findings appears in Appendix D. This table provided data which indicated that many participants were not satisfied with their present status in relation to nine items that were ranked very important to their quality of life. Levels of importance were higher than levels of satisfaction in more than 80 percent of the categories. A major exception was the component related to being a parent and another was participating in activities related to local and national government.

Satisfaction levels were higher than levels of importance in these two categories, the two of least importance to the respondents. Similarities between levels of satisfaction and importance were found related to material comforts. Eighty-eight percent of the females said this was important or very important to them and 89 percent said they were satisfied with this aspect of their life. Males ranked participating in activities which help or encourage other adults or children higher in terms of satisfaction than in terms of importance. Seventy-five percent of the males indicated that they were satisfied or very satisfied with this component. The final area of similarity was related to reading, listening to music or observing sporting events or entertainment. Ninety-two percent of the males indicated this was important or very important and 94 percent of the females indicated the same. Ninety percent of the males indicated they were satisfied with this area and 92 percent of the females indicated the same. In all other areas, the percent of those who indicated they were satisfied or very satisfied fell below the percent of those who indicated they thought the item important or very important.

The Cedar Rapids participants were between the ages of 20 and 26, and were an average of four to six years younger than the 1,000 participants in the study done by Flanagan (1975) in which a similar set of components was used to learn more about satisfaction with and the importance of quality of life. While the list given the Cedar Rapids participants (see the last page of Appendix B) was given in the order reported by Flanagan (1975) as most important to least important by his

participants, the Cedar Rapids experience produced different results and a different order to the components. This may be accounted for by the age and experience of the participants in this study and by the fact that they have not yet had time to face marriage and work frustrations. There is similarity in ranking for the first items and the last items. The two groups agreed that physical and mental health was important and there were high degrees of satisfaction by the participants in both studies with this component. The two groups also ranked participation in activities related to local or national government as last in terms of importance as well as satisfaction. From there on, however, the two lists are quite different. Appendix D displays the data from both studies for comparison purposes. The possible bias in measurement created by giving the participants in Cedar Rapids the list of components from the Flanagan (1975) study without randomizing the list made it impossible to make direct comparisons to strengthen the findings from Cedar Rapids or those of Flanagan (1975). However, the following considerations seem pertinent.

The older participants (Flanagan's 1975 study) viewed their lives as less satisfying than did the younger participants (Cedar Rapids 1976 study). Campbell, Converse and Rodgers (1976) suggested this might be typical in that younger people tend to view their lives more positively than older persons. Flanagan's participants also rated components related to marriage and family higher than did the younger Cedar Rapids participants. Both of these findings bear further research, but they

were substantiated by the findings of Campbell, Converse and Rodgers (1976) who, in their study of a national sample of adults on the quality of life, found that younger people also viewed marriage and family differently than did older persons. Flanagan's (1975) study contained a larger number and percentage of married people in the sample of 1,000 than did the 1,062 from the Cedar Rapids study. The interest in family related activities was expected from the Flanagan participants. The Cedar Rapids participants were still working on career plans and establishing themselves in the community. Many were not married and/or had not completed their education and started families.

Another factor in the differences in the percentage rates was possibly due to the nature of the data collection. Flanagan's (1975) data were collected through the interview process with trained interviewers, while the Cedar Rapids data were collected through a mail survey. Flanagan's data were also collected from a sample drawn of people from various types of communities and from a diverse population. The Cedar Rapids data were collected from a sample of people living in the same geographical region and living a similar life-style.

Cedar Rapids high school graduates emerged looking very much like other males and females in other studies throughout the nation. Both males and females indicated they were seeking work that would be meaningful. This was a definite shift from a philosophy which prevailed through the 1960's or until the 1970's in which work was viewed as the place in which male superiority could be tested and demonstrated. Males

in the Cedar Rapids study were more reluctant than females to enter positions previously considered appropriate for the other sex than males. Consistent with national trends, women had expectations for and were moving into higher paying positions with more responsibility.

Conclusions

Conclusions were reached regarding career preparation and planning, job satisfaction, and the importance of and satisfaction with components measuring quality of life.

Career Preparation and Planning

Conclusions reached regarding career preparation and planning were that the curriculum of the Cedar Rapids schools appears to be meeting basic needs of students and community. Both males and females indicated they were able to make plans and to work toward stated goals. The inequalities that have posed a problem for women and have limited both males and females in career choice have left a mark on Cedar Rapids as they have elsewhere around the country. Cedar Rapids has not escaped these problems but the data revealed a sensitivity to the problems and this was specified in the attitude and performance of the participants of this study.

From hypotheses tested, related to differences between male and female participation in higher education and/or training programs and the completion of these programs, it was concluded that males and females were entering programs beyond high school graduation at about the same rate. In fact, females in the study entered programs of an educational

nature in larger percentages than did males. A lower percentage of females graduated than did males. One conclusion that could be drawn from this fact was the possibility that males might still feel the need to excel or prove themselves and might be perceiving the completion of educational and/or training programs as one way in which they could accomplish their goal of excelling. The important fact, for Cedar Rapids educators, was that Cedar Rapids graduates have been able to enter into a variety of training programs and to complete these programs.

Another piece of data contributing to the conclusion that Cedar Rapids educators have provided an educational experience that has met the needs of students and community is the fact that some career planning has been done by the participants. Participants have been able to make plans and act on them. In addition to this, it was further concluded that a basic satisfaction exists among the participants, which is directly related to how they feel about their work and preparation and planning for this work.

From hypotheses tested related to employment, the following conclusions regarding employment could be reached: first of all, females are more satisfied with their present employment than males but more females expected to make changes in their employment positions in the next five years. No definite conclusion could be reached as to why these females were satisfied with their present position and yet had plans to leave these positions. One speculation was that many of the women might be considering a position which they viewed as more

permanent and had taken their current position only as a temporary job until they were ready for the permanent position or until they were able to complete the training that would allow them to step into a more permanent position. Another speculation was that some might be considering roles as homemaker and were working until marriage or until financially they could afford to quit. The analysis of the data was done in such a way that these speculations could not be verified. The review of the literature suggested that many women have been socialized to "make the best of a situation" and quite possibly this was the reason for the basic satisfaction with positions viewed as temporary. Finally, for some the satisfaction with a position is obtained when it is possible to change the position, or when other options exist.

The fact that a larger number of females than males were considering moving into positions formerly considered appropriate for members of the other sex was encouraging and consistent with national trends. It was concluded that Cedar Rapids has felt the change that Cohen (1971), Feldman (1974), Freeberg and Rock (1975) and others suggest is happening with regard to appropriate roles and careers for both males and females. Cedar Rapids participants also reflected other patterns in behavior that have been found elsewhere in the country. Males did not indicate that work was the most important part of their life or essential to their quality of life. In fact, females indicated work as being more important than did the males. Further, males were less oriented toward finding meaning in life through their work and more inclined

toward finding work that was of a satisfying nature to them. There was still a reluctance on the part of males to consider employment in positions traditionally thought of as being traditional for females. It was concluded that changes in attitude and behavior have affected both males and females in terms of career preparation planning. Males have made changes in how they view work and females have made changes in taking risks and venturing into positions previously considered appropriate for members of the other sex only.

In terms of the questions posed in Chapter I and the hypotheses presented in Chapter III and tested and displayed in Chapter IV, this study concluded the following:

1.1 The graduates, both male and female, prepared for careers.

- *1.11 There was a difference in the amount of education beyond high school males had obtained when compared to females.
- *1.12 There was a difference between males and females in the amount of additional training each group had beyond high school.
- *1.13 There was a difference in the employment status of males and females in the study.
- *1.14 There was a difference between male and female employment patterns.

1.2 In the population studied, there was a difference between males and females in career planning.

- *1.21 There was a difference between male and female projected employment plans.
- *1.22 There was a difference in the five-year career plans of the males and the five-year career plans of the females.
- *1.23 There was a difference between males in the establishment of long-range career plans.

*Indicates the null hypothesis was rejected at $\alpha = .05$

Job Satisfaction

Life does not appear to be "soulless" or unsatisfying for the participants of this study. They indicated high levels of job satisfaction and females indicated being slightly more satisfied than did the male participants. Both males and females appeared to be people satisfied with themselves and with an educational experience that had somewhat equipped them to work toward and reach some of their established goals.

From this study it was concluded that:

- 2.1 There were no differences between males and females with regard to job satisfaction.

It had been planned to explore and test hypotheses related to job satisfaction within each group by marital status and level of responsibility, however, there were so few people in some of the marital status categories (and in some cases, none) that it was not possible to test these hypotheses. It was concluded that both males and females found work that was satisfying to them.

Quality of Life

Although the data regarding the quality of life indicated that the levels of satisfaction were not as high as levels of importance on many of the items the participants rated important or very important, the over-all index of satisfaction is quite high. The analysis of these data showed there were three main areas in which there was a large discrepancy between items rated important and levels of satisfaction with the component. These were work in a job or at home that is interesting, rewarding, worthwhile; developing the mind through learning, attending school, improving understanding, or acquiring additional knowledge; and physical and mental health or being physically fit and vigorous, free from anxiety and distress, and being able to avoid bodily harm. There were other areas where discrepancies occurred, but the ones listed above were most important to the participants and those in which the greatest discrepancies occurred between what was viewed as important and what was satisfying.

From the testing of the hypotheses, the following conclusions were reached:

- 3.1 There were some differences between the males and females in the levels of importance assigned to components of quality of life.
 - 3.11-1 Differences were not found between male and female levels of importance related to physical and mental health.

- *3.11-2 There was a difference between males and females indicating the level of importance of a close relationship with a spouse.
- 3.11-3 Differences between males and females were not found for the component related to the importance of work.
- 3.11-4 Differences between males and females were not found for the component related to the importance of developing maturity.
- *3.11-5 There was a difference between males and females with regard to the level of importance attached to being a parent.
- 3.11-6 Differences between males and females were not found for the component related to the importance of developing and using the mind.
- 3.11-7 Differences between males and females were not found for the component related to the importance of material comforts.
- *3.11-8 There was a difference between males and females related to the importance of relationships with parents, brothers, sisters, and other relatives.
- *3.11-9 There was a difference between males and females related to the importance of having close friends.
- *3.11-10 Males and females differed in levels of importance attached to participating in activities which help or encourage other adults or children.

- 3.11-11 Differences between males and females were not found for the component related to the importance of reading, listening to music, or observing sporting events or entertainment.
 - *3.11-12 Males and females differed in levels of importance attached to participating in active recreation.
 - *3.11-13 Males and females differed in levels of importance attached to self expression through music, art, writing, photography, practical activities, or in leisure time activities.
 - *3.11-14 Males and females differed in levels of importance attached to socializing.
 - *3.11-15 Males and females differed in levels of importance attached to participating in activities related to local and national government.
- 3.2 There were some differences between males and females attached to present satisfaction with some of the fifteen components. Specifically, the findings are as follows:
- 3.21-1 In terms of satisfaction with physical and mental health, differences were not found between males and females.
 - *3.21-2 There was a difference between males and females in satisfaction with present status regarding a close relationship with a spouse.

- 3.21-3 Differences were not found between male and female levels of satisfaction with the component related to work.
- 3.21-4 Differences between male and female levels of satisfaction were not found with the component related to developing maturity.
- *3.21-5 There was a difference in satisfaction with present status as a parent between the males and females.
- 3.21-6 Differences were not found between male and female levels of satisfaction with the component related to using the mind.
- *3.21-7 There was a difference between males and females in levels of satisfaction with the component related to material comforts.
- *3.21-8 There was a difference between males and females in satisfaction with present status regarding relationships with brothers, sisters, parents, and other relatives.
- *3.21-9 There was a difference between males and females in satisfaction with present status related to having close friends.
- 3.21-10 Differences were not found between males and females in terms of satisfaction with participating in activities which help or encourage other adults.

- 3.21-11 Differences were not found between male and female levels of satisfaction with reading, listening to music or observing a sporting event.
- 3.21-12 Differences between male and female responses to participating in active recreation were not found.
- 3.21-13 Differences between male and female responses to self expression were not found.
- 3.21-14 Differences between male and female responses to socializing were not found.
- *3.21-15 Differences were found between male and female levels of satisfaction with participating in activities related to local or national government.

The Cedar Rapids participants were similar to the participants of other studies regarding their responses to what is important and satisfying in their lives. They were also somewhat more positive about their life experience. Again, the question of whether or not with some additional experience they might look somewhat more critically on their school experience was raised. The literature suggested they might be a little less positive about the life experience as they grew older. No conclusion was drawn about this and additional discussion appeared in the section on further research.

Marital and Family Status

From the hypotheses tested related to marital status and family size, it was possible to conclude the following:

3.3 There were differences in marital status.

- *3.31 Males and females differed in marital status.
- 3.32 Males and females did not differ in the number of children in the family.

Recommendations

The initial purpose of this study was to provide information that could be used, along with additional data, to aid in the decision making process regarding a formal career education program for the Cedar Rapids, Iowa, public schools. The educators in Cedar Rapids also wanted to know more about the graduates' perceptions of their school experience and how the graduates, both male and female, felt about their school experience. They wanted to know if both males and females were able to function as workers in an adult society. Through comparing the perceptions, evaluations, and satisfactions of the male and female participants, the following recommendations have emerged.

Career Preparation and Planning

In light of findings regarding career preparation and planning, it appeared that the Cedar Rapids public schools were providing their graduates with an experience that is consistent with community needs. Students are able to find work and have expressed satisfaction with this work. Those who have gone on to college have also expressed satisfaction with their plans. It was therefore recommended that:

1. Cedar Rapids, Iowa, public schools continue those programs which a) aid students in learning more about themselves and how they can best function as members of the adult community;

and b) aid students in developing problem solving and decision making skills; c) aid students in understanding and identifying options and alternative courses of action open to them; and d) aid students in developing an awareness about the world of work.

While both males and females indicated some shifts in thinking about what is appropriate work for each sex, male responses indicated some need for additional help in understanding more about the socialization process and interpersonal relations. Males were still entering graduate school and graduating from college and training programs at higher rates than females. This may indicate a need for additional thinking about what it means to be a male or a female and how a satisfying life experience can be achieved. In light of the findings, it was recommended that:

2. Cedar Rapids, Iowa, public schools evaluate the experiences of the male students related to socialization and interpersonal relations and consider a stronger emphasis in helping males to understand how it is they are socialized to think in certain ways; that certain positions are appropriate for males; that in order to be masculine, a male needs to be successful and being successful means having a powerful position.

While the participants of this study did not emerge as being basically unhappy with their lives, females indicated less satisfaction with their employment when they indicated they planned to change

positions within the next few years. These findings suggest that a careful look at career education and career counseling be provided for females. In light of the findings it was recommended that:

3. Cedar Rapids, Iowa, public schools evaluate the career counseling being given females in an effort to determine if female students are shutting themselves out of certain opportunities or whether they are still being shut out. Are females taking courses which would allow them to find work at Collins Radio or other local businesses and/or industries?

The efforts of the administrators in Cedar Rapids, to provide in-service for teachers, parents, business and educational leaders as well as students and to bring these groups together to address career education concerns has made an impact on the participants' quality of life. While some weaknesses have been mentioned, it was strongly recommended that:

4. Cedar Rapids educators continue a) in-service efforts which address sex-role stereotyping; b) workshops for students, community residents and business and industry leaders on career awareness; c) opportunities for paraprofessionals to become aware of the consequences of sex-role stereotyping; and d) work study programs.

Quality of Life

The experience of the students in the Cedar Rapids, Iowa, public schools appears to be a generally satisfying one. The importance the participants, both male and female, attached to developing the mind was

gratifying and has a lot to say about the kinds of persons the participants in this study are, and perhaps something to say for the school experience as well. There are some new indications, however, that the school experience has not produced satisfying results in areas related to being a parent and participating in national and/or local government. In light of the participants' lack of satisfaction in these areas and the lack of importance they attached to the two components related to parenting and government, it was recommended that:

5. Cedar Rapids, Iowa, public schools upgrade curriculum areas in the social studies with new experiences related to participating in local government and/or national government. Internships and apprenticeships might be tried if these are not currently part of a social studies offering. Since current offerings have not produced satisfying results, more than one new approach to helping students become involved with local and/or national government might be tried.
6. In addition to an upgrading or change of curriculum related to government, a similar recommendation is made related to parenting. Participants may not be taking advantage of opportunities related to understanding more about the parenting process if such is offered.
7. If a variety of innovative opportunities are present in helping students with concepts related to government and parenting, it is suggested that the Cedar Rapids, Iowa,

schools investigate the possibility of having every student exposed to some segment of the course or curriculum related to these areas.

This study suggested that the Cedar Rapids high school experience is giving the community what it wants, workers who can put in a good day's work and who are basically satisfied with their lives, at least for the time being. In light of these findings, it is recommended that:

8. Cedar Rapids, Iowa, educators study the employers' satisfaction with those employees who are graduates of the Cedar Rapids high schools. This will give additional information and help in deciding about the quality of the educational experience.

It is strongly recommended that:

9. Cedar Rapids, Iowa, public school leaders continue in their efforts of assessing the quality of the educational experience and continue to raise questions regarding the educational experience. This effort might start with the faculty from each of the buildings developing a list of implications they have drawn from their review of the data collected from participants of this study.

Recommendations for Further Study

In addition to the recommendations made above, the following additional recommendations also were viewed as essential to completing a picture of the Cedar Rapids, Iowa, educational experience as it related to career education and the quality of life.

A more thorough picture of the contribution education has made to the life of the graduate could be obtained by again surveying the same classes of graduates in another five years. Present data were helpful in detecting trends and in completing one picture but the literature suggested that plans made in high school were often unrealistic and as of the completion of this study, many participants were just getting started on some of their plans. A larger percentage of females indicated plans to make changes in their work than did males, and this may be due to a general change in opportunities for women. The fact remains, the Cedar Rapids participants were satisfied with their lives, had plans for the future, which included some changes, all of which were consistent with findings suggested from a search of the literature regarding people the age of the participants in this study. The same research suggested that as the participants grew older they would be less likely to report high degrees of satisfaction with their lives. In light of these findings, it was recommended that:

1. A follow-up study or a duplication of the Flanagan (1975) study be conducted in another five years using the same participants.

One possibility of such a follow-up study's contribution to decision-making in Cedar Rapids would be some data which would allow a more precise statement regarding the role of the high school in career planning and preparation. Several questions related to the role of the high school might then be answered, specifically these are:

- a. Should the high school be looked upon as a place to continue an exploration of careers, an exploration begun in kindergarten and expanded as the individual approaches graduation?
or
- b. Should the high school be the place where plans are firmed, to be acted upon and carried out after graduation?

The duplication of the Flanagan (1975) study would also allow for additional questions to be answered.

- c. Will the Cedar Rapids participants feel the same as older participants in other studies when they are 30 or older, and view their school experience as being somewhat unbalanced in terms of preparing them for understanding more about themselves and leading a satisfying life?
- d. Will the participants of the Cedar Rapids study view the school experience as one which cheated them of an experience in learning more about their emotions, values, and philosophical concerns, as did the older participants in the Flanagan (1975) study?

If the Flanagan Study (1975) were to be duplicated, it is further suggested that the component related to observation of sports be separated from reading and listening to music. All are passive but they are different enough to merit being separated.

More specifically, it is suggested that further research be conducted to determine the following:

2. Where are career education components being stressed in the K-12 curriculum?
3. Who is taking what courses; specifically the question to be answered is one of whether or not the interest in active recreation is supported by participation in physical education classes. If not, is something being done to foster interest in life-time sports?
4. Did the questionnaire encourage the participants to form high levels of aspiration or was the picture that emerged from this data an accurate one?

Finally, Cedar Rapids educators are encouraged to seek answers to the following questions, in addition to those posed above:

5. Did the Cedar Rapids school experience help to produce people with the "future in their bones," people capable of living in a rapidly changing society in a way that helps to improve the quality of life for others?
6. Are both males and females in Cedar Rapids able to lead satisfying lives as they pass from one generation to the next?

The data have suggested some answers to the questions posed in this section. Continuing to raise these questions and acting upon them will help assure that students graduating from the Cedar Rapids schools might be adequately prepared to enter the world of work and the adult community as a more fully functioning member of a work-oriented society. More importantly, it may be that Cedar Rapids will move closer to being one

of those rare school systems preparing students to live in a rapidly changing society. Hopefully, continued evaluation will allow for an educational experience from which people will emerge who "have the future in their bones", people who will be able to do a "better job for the rest of us." Time will tell.

APPENDIX A

Statement of Philosophy Cedar Rapids, Iowa, Schools

The Board of Education recognizes the right and the responsibility of residents of the district to determine the educational program the district shall provide. The cooperative efforts of school staff and the general public have produced these statements of purpose and goals of the Cedar Rapids Community School District.

TO ACCOMPLISH ITS PURPOSE THE DISTRICT WILL PROVIDE
A SCHOOL ENVIRONMENT THAT IS:

RESPONSIVE: providing for changing needs through continuous assessment and diagnosis of student progress, systematic evaluation of the school program, continual updating of the professional skills of staff and participation of the community in decisions related to education.

SUPPORTIVE: accepting each student as a human being, worthy in one's own right; prizing one's own feeling, opinions, and person; and building on mutual trust and respect.

EXPANSIVE: Offering effective access to community resources and providing a sufficient variety of learning alternatives to accommodate individual needs, interests, learning styles, and rates of progress.

CEDAR RAPIDS COMMUNITY SCHOOLS
DISTRICT GOALS

The purpose of education is to enable each person to develop his potential for becoming a fully-functioning and responsible member of a diverse and changing democratic society.

The mission of the district is further defined by the following goals which every student should have an opportunity to achieve:

Develop BASIC SKILLS: functioning in all areas of communication and in mathematics at the level of competency required for success in one's role as an individual, a family member, a citizen, and a worker.

Develop RESPONSIBLE CITIZENSHIP: knowing and respecting one's rights, privileges, and obligations and those of others; responding to the needs of people; and assuming productive roles in various aspects of society.

Examine CULTURAL DIFFERENCES: becoming knowledgeable of one's own heritage and respecting the diversity of values and traditions of persons from other social, ethnic, and linguistic groups.

Begin CAREER DEVELOPMENT: exploring career opportunities consistent with personal ambitions, talents, and interests and preparing for useful and rewarding employment and for continuing education.

Value INQUIRY PROCESS: learning and using skills and strategies of inquiry to solve problems and make decisions.

Acquire KNOWLEDGE: examining significant concepts and issues from the natural and social sciences and from the humanities, and reflecting on their implications for human achievement in the past, the present, and the future.

Achieve OPTIMUM HEALTH: basing attitudes and decisions on an understanding of growth and development, and on an awareness of the interaction of one's physical, mental, social, and emotional dimensions.

Become SELF-MOTIVATING: demonstrating initiative, enthusiasm, self-direction, and continuing self-renewal.

Develop AESTHETIC SENSITIVITY: responding to and participating in dimensions of creative expression.

Experience SELF-FULFILLMENT: acquiring a positive self-concept as one experiences success in work and leisure, evaluates one's potentials, senses purpose in one's activity, and develops effective interpersonal relationships.

APPENDIX B
Survey Instrument



October, 1975

Dear Graduate:

We need your help--and about 20 minutes of your time!

The administrators, counselors, and teachers of the Cedar Rapids Community School District are interested in knowing what has happened to you and many other members of the classes of 1968, 1971, and 1974 since graduation.

In our efforts to provide the best possible education for our students, we are continuing to expand career-oriented activities and programs offered by the schools.

That is where you can help us. Please answer this questionnaire concerning any additional education or training you have acquired since leaving our schools, your current occupation, the leisure-time activities you pursue, and your career goals. The data will help us to assess what influence your educational program may have had on your career choice.

Nationwide there is also renewed interest in the programs and opportunities provided by the schools to students with special skills, talents, and abilities.

Any information you provide will be confidential. A code number has been placed on each copy of the questionnaire to facilitate follow-up reminders, if needed. Your participation in this survey will be greatly appreciated because it is through your cooperation that we gain our most valuable information for improving our educational programs. A summary of this study will be available before the end of the year.

Sincerely,

George H. Ross
Research and Evaluation

QUESTIONNAIRE

CEDAR RAPIDS COMMUNITY SCHOOL DISTRICT
CAREER EDUCATION FOLLOW-UP STUDY OF GRADUATES

PERSONAL INFORMATION

A. Marital Status: Single _____ Married _____ Separated _____ Divorced _____ (8)

B. Number of children _____ (9)

INTERESTS

A. List your leisure-time activities and hobbies:

_____ (10)

B. List membership in clubs and/or organizations since high school:

_____ (13)

EDUCATION

A. Circle grades completed in Cedar Rapids schools: 9 10 11 12 (15)

B. Additional education and/or training since high school:

____ None	____ A. A. Degree or Equivalent	(17)
____ On-the-Job Training	____ Third Year College Completed	
____ Apprenticeship	____ Bachelor's Degree	
____ Vocational-Technical Study	____ Graduate Study	
____ Vocational-Technical Graduate	____ Graduate Degree	
____ One or Two Years of College Completed		
____ Other (Please specify: _____)		

C. List the type, location, and duration of this additional education and/or training, beginning with the most recent.

Type	Location	Duration	
_____	_____	_____	(19)
_____	_____	_____	
_____	_____	_____	

D. List any certificate or degrees completed, beginning with the most recent.

Certificate or degree	Location	Date	
_____	_____	_____	(22)
_____	_____	_____	
_____	_____	_____	

**YOUR WORK EXPERIENCE SINCE HIGH SCHOOL (not including present job),
beginning with the most recent.**

Job	Duties	Full/ Part-Time		Length of Employment		
		F	P	Yrs	Mos	
_____	_____	_____	_____	_____	_____	(25)
_____	_____	_____	_____	_____	_____	(32)
_____	_____	_____	_____	_____	_____	(39)
_____	_____	_____	_____	_____	_____	(46)
_____	_____	_____	_____	_____	_____	(53)

JOB SATISFACTION: In a job, how important to you are the following items?

Please check:	Very Important	Somewhat important	Not important	
1. The number of hours you work	1. _____	_____	_____	(60)
2. The shift to which you are assigned	2. _____	_____	_____	(61)
3. Getting along with other workers	3. _____	_____	_____	(62)
4. Working with the public	4. _____	_____	_____	(63)
5. The money you earn	5. _____	_____	_____	(64)
6. Fringe benefits	6. _____	_____	_____	(65)
7. The security of steady work	7. _____	_____	_____	(66)
8. The chance to help people	8. _____	_____	_____	(67)
9. Excitement of the work	9. _____	_____	_____	(68)
10. Your pride in your work	10. _____	_____	_____	(69)
11. The importance of your duties	11. _____	_____	_____	(70)
12. Opportunities for advancement	12. _____	_____	_____	(71)
13. The title of your job	13. _____	_____	_____	(72)
14. The importance of your job to the organization or company	14. _____	_____	_____	(73)

(80) 1



PRESENT EMPLOYMENT SITUATION

A. Check one or more of the following:

Working part time _____ (8) Part-time student _____ (11) Military service _____ (14)

Working full time _____ (9) Full-time student _____ (12) Self-employed _____ (15)

Homemaker _____ (10) Unemployed _____ (13)

B. If employed: Job Title/Duties

Length
of Employment_____
Yrs. _____ Mos. _____ (16)_____
Yrs. _____ Mos. _____ (21)

C. Has your present job required any additional training? Yes _____ No _____ (26)

If answer is yes, explain the kind of training: _____

(27)

D. Are you satisfied with your present job? Yes _____ No _____ Explain: _____ (28)

(29)_____
(29)

E. Do you expect to be doing the same job five years from now? Yes _____ No _____ (30)

Why or why not? _____

(31)

F. Is your present job one that has been traditionally for

men _____, women _____, or either _____? (32)

FUTURE CAREER PLANS

A. Do you have a career plan covering the next 10 to 15 years? Yes _____ No _____ (33)

Please explain _____

B. What kinds of jobs would satisfy this goal? _____ (35)

C. Is this career or field one that has been traditionally for

men _____, women _____, or either _____? (39)

D. Who or what has influenced your career plan? (For example: parent, other relative, teacher, youth activity leader, friend, counselor, classroom experience, after-school activity, etc.) _____ (40)

(40)_____
(40)

Please explain _____

LOOKING BACK TO HIGH SCHOOL

A. During your high school years, did you participate in: (Check each appropriate answer.)

Varsity athletics	_____ (41)	Vocal or instrumental music	_____ (47)
Intramural sports	_____ (42)	Dramatics and/or speech, debate	_____ (48)
Clubs	_____ (43)	Work experience (for school credit)	_____ (49)
Student government	_____ (44)	Other employment (no school credit)	_____ (50)
Mini-teaching	_____ (45)	Volunteer community service	_____ (51)
Co-op	_____ (46)	Other (specify)	_____ (52)

B. While you were a high school student, how would you rate the following?

(Please check one line in each column.)	Your grades	Your attitude toward studying and class participation	Your potential for achievement in the classroom
Well above average	_____	_____	_____
Above average	_____	_____	_____
Average	_____	_____	_____
Below average	_____	_____	_____
Well below average	_____ (53)	_____ (54)	_____ (55)

C. What were your favorite subjects or subject matter areas in high school?

1. _____ 2. _____ 3. _____ (56)

What subjects did you like least?

1. _____ 2. _____ 3. _____ (59)

D. When you were in high school, did you plan to enter the job that you now have or for which you are now preparing?

Yes _____ No _____ Please explain: _____ (62)

E. Do you consider yourself especially talented in any one or more of the following areas?

Academic: Yes _____ No _____ (59) Art: Yes _____ No _____ (66)

Music: Yes _____ No _____ (60) Athletics: Yes _____ No _____ (67)

Other: (list) _____ (68)

F. State briefly how the school provided for your development of any special talent(s):

G. State briefly how the school failed to provide for your development of any special talent(s): _____ (70)

OPINIONS

- A. From time to time, citizens and staff are asked to serve on committees to improve our schools. What are some of the weaknesses that you feel these groups should study? _____

- B. What would you tell these groups are the strong points of our school system? _____

- C. What classes, programs and/or activities do you now wish you had taken advantage of, but did not, while in high school? _____

- D. More than half of the graduates of Cedar Rapids high schools go on to college or training programs. How would you grade (A, B, C, D, F) their preparation for continuing education? _____ (71)

If you went to college or into a training program after graduation, how do you grade (A, B, C, D, F) your own preparation? _____ (72)

- E. Other graduates choose to enter employment after high school graduation. How would you grade (A, B, C, D, F) their preparation for entering a career? _____ (73)

If you entered employment after high school, how would you grade (A, B, C, D, F) your own preparation? _____ (74)

- F. Additional comments and opinions: _____ (80) 2

QUALITY OF LIFE

When Liza Minelli in CABARET sang a song "Those Were the Days My Friend!" and Peggy Lee sings "Is That All There Is?", each has reference to the quality of life. Listed on the next page are 15 components of the quality of life; please indicate both their level of importance to you and level of satisfaction with your present status with respect to each component.

QUALITY OF LIFE	AT THIS TIME IN YOUR LIFE, HOW IMPORTANT IS THIS TO YOU?			HOW SATISFIED ARE YOU WITH YOUR PRESENT STATUS?		
	Very Important	Important	Not Important	Very Satisfied	Satisfied	Dissatisfied
1. PHYSICAL AND MENTAL HEALTH—to be physically fit and vigorous, to be free from anxiety and distress, and to bodily harm.	1. — — —			1. — — — —		(8)
2. CLOSE RELATIONSHIP WITH A SPOUSE, boyfriend, girlfriend. Consider things like love, companionship, understanding, appreciation, and sexual satisfaction.	2. — — —			2. — — — —		(10)
3. WORK in a job or at home that is interesting, rewarding, worthwhile.	3. — — —			3. — — — —		(12)
4. DEVELOP MATURITY, insight into your assets and limitations, understanding of the meaning of life, and ability to plan and make decisions on major life activities.	4. — — —			4. — — — —		(14)
5. BE A PARENT and help, teach, and care for your children.	5. — — —			5. — — — —		(16)
6. DEVELOP AND USE YOUR MIND through learning, attending school, improving your understanding, or acquiring additional knowledge.	6. — — —			6. — — — —		(18)
7. MATERIAL COMFORTS—things like a desirable home, good food, possessions, conveniences, an increasing income, and security for the future.	7. — — —			7. — — — —		(20)
8. RELATIONSHIPS WITH YOUR PARENTS, BROTHERS, SISTERS, AND OTHER RELATIVES—things like communicating, visiting, understanding, doing things, and helping and being helped by them.	8. — — —			8. — — — —		(22)
9. CLOSE FRIENDS sharing activities, interests, and views, being accepted, visiting, giving and receiving help, love, trust, support, guidance.	9. — — —			9. — — — —		(24)
10. PARTICIPATE IN ACTIVITIES WHICH HELP OR ENCOURAGE OTHER ADULTS OR CHILDREN. These can be your own efforts or efforts as a member of some church, club, or volunteer group.	10. — — —			10. — — — —		(26)
11. READ, LISTEN TO MUSIC, OR OBSERVE sporting events or entertainment.	11. — — —			11. — — — —		(28)
12. PARTICIPATE IN ACTIVE RECREATION—such as sports, traveling and sightseeing, playing games, singing, dancing, playing an instrument, acting, and other such activities.	12. — — —			12. — — — —		(30)
13. EXPRESS YOURSELF in a creative manner in music, art, writing, photography, practical activities, or in leisure time activities.	13. — — —			13. — — — —		(32)
14. SOCIALIZING—meeting other people, doing things with them, and giving or attending parties.	14. — — —			14. — — — —		(34)
15. PARTICIPATION IN ACTIVITIES RELATING TO LOCAL OR NATIONAL GOVERNMENT and public affairs.	15. — — —			15. — — — —		(36) (80) 3

APPENDIX C

Cedar Rapids Follow-up Study Timetable
Letter to Parents of Participants
Follow-up Materials

SURVEYS CONDUCTED AS PART OF CAREER EDUCATION NEEDS ASSESSMENT
Cedar Rapids Community School District
September, 1975 - May, 1976

1. Follow-up survey of graduates (1968, 1971, and 1974):

Summer, 1975	preliminary questionnaire developed by mini-grant committee of teachers and counselors
September, 1975	questionnaire revised, pilot conducted; letter to parents requesting address of graduates
October, 1975	questionnaire to graduates; reminder/thank you postcard to graduates
November, 1975	reminder/request letter to graduates; additional questionnaires and postcards to graduates with new addresses
December, 1975	second questionnaire to graduates who had not as yet responded
January - May, 1976	continued soliciting responses, began coding responses, designated location of graduates by class on large maps; located approximately 2400 graduates; received 1,104 responses

2. Awareness survey of certified staff

Summer, 1975	preliminary studies conducted by mini-grant committee of teachers and counselors
January - February, 1976	developed and piloted questionnaire; questionnaire designed in four forms
February, 1976	letter of explanation sent to all principals; letter sent to all ESC certified personnel
February - March, 1976	letter, definitions, article on career education sent to all certified staff; summer mini-grant committee members assist in conducting survey of certified staff in all buildings except ESC where survey is hand delivered to all participants; 1,249 certified personnel participate in survey of awareness
March, 1976	thank you letter to all participants plus request for information on career education activities taking place during this school year

3. Awareness surveys of parents (elementary, junior high, senior high)

February - March, 1976	questionnaire developed for parents of elementary school children
March, 1976	letter sent to elementary principals requesting that five parents per grade (K-6) be asked to complete questionnaire when at school for parent conference
March - April, 1976	878 responses received from elementary parents
February - March, 1976	questionnaire developed for parents of junior high students
March, 1976	questionnaires mailed to approximately 38 percent of parents - 1,935 total; letter sent to junior high principals informing them that questionnaire had been sent
April, 1976	thank you/reminder postcard sent to sample of junior high parents
March - May, 1976	responses received from approximately 756 parents
February - March, 1976	questionnaire developed for parents of senior high students
March, 1976	questionnaires mailed to approximately 40 percent of parents - 1,875 total; letter sent to senior high principals informing them that questionnaire had been sent
April, 1976	thank you/reminder postcard sent to sample of senior high parents
April - May, 1976	responses received from approximately 634 parents

SURVEYS CONDUCTED AS PART OF CAREER EDUCATION NEEDS ASSESSMENT

Page 2

4. Awareness surveys of students (senior high, junior high, intermediate, primary)

Summer, 1975	preliminary concepts of career education to be surveyed determined by mini-grant committee of teachers and counselors
February -	
March, 1976	questionnaire developed and piloted for senior high students
March -	
April, 1976	640 senior high school students surveyed
February -	
March, 1976	questionnaire developed and piloted for junior high students
April, 1976	1,189 junior high school students surveyed
April -	
May, 1976	two questionnaires developed and piloted for elementary school students (one for intermediate level, one for primary level)
May, 1976	directions for administering the elementary student questionnaires sent to all elementary counselors; approximately 640 intermediate and 640 primary students surveyed--one intermediate level and one primary level randomly selected at each school



September 10, 1975

Dear Parents:

Please take a few minutes to do a favor for us.

Soon we will be mailing a questionnaire on career education to many 1968, 1971, and 1974 graduates of our school district. The answers provided by your son or daughter will help us determine what additional career-oriented activities and programs should be offered by the schools.

Material being sought includes facts on further education and training of these grads, their present occupations and leisure-time pursuits, plus personal recommendations for curricular or extra-curricular improvements. The information provided by each individual will be confidential. A summary of this study will be available in a few months to all interested persons.

In order to reach a representative number of these graduates, we need their current addresses. We'd appreciate your completing the form below and sending it to us -- postpaid -- by return mail.

Thanks,

George H. Ross
Research and Evaluation

_____ Check here if graduate's address is the same as on the reverse side.

Name _____
(First) (Last) (Maiden, if married)

Address _____
(Street address) or (Box and Route number)

(City) (State) (Zip)

Return by refolding letter and mailing.



November, 1975

Dear Graduate:

Have you forgotten something?

We haven't received your career education questionnaire yet. Have you filled it out and mailed it back?

This special questionnaire was recently sent to you and many other 1968, 1971, and 1974 graduates of our school district. Your answers will help us determine what additional career-oriented activities and programs should be offered by the schools. Please take time to fill out your questionnaire -- we want to hear from you.

The information provided by each individual will be confidential. A summary of this study will be available in a few months to all interested persons.

If you have misplaced your questionnaire, please complete the form below and send it to us -- postpaid -- by return mail. We'll be glad to send you another.

Thanks,

George H. Ross
Research and Evaluation

____ Check here if you need another questionnaire.

____ Check here if your address is the same as on the reverse side.

If not, please indicate needed changes in the spaces below.

Name _____
(First) (Last) (Maiden, if married)

Address _____
(Street address) or (Box and Route number)

(City) (State) (Zip)

Return by refolding letter and mailing.

CAREER EDUCATION FOLLOW-UP STUDY OF GRADUATES
CLASSES OF 1968, 1971, and 1974

Sponsored by the Cedar Rapids Community School District

Just a reminder . . . and a note of thanks.

Recently we mailed you a special questionnaire.

If you have completed and returned your questionnaire, thank you -- many of your fellow graduates also have.

If you have not returned your questionnaire, please sit down, fill it out, and mail it back to us -- postpaid -- today. Only you can tell us what's happening. Don't miss your chance!

George H. Ross, Director
Research and Evaluation

Dr. George H. Ross
Cedar Rapids Comm. Schools
346 Second Ave. S.W.
Cedar Rapids, Iowa 52404

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APPENDIX D

Ranking of the Fifteen Components by the Cedar Rapids Participants and the Flanagan Participants

The percentages from a preliminary sample of 500 Project TALENT participants compared with the percentages from a sample of 1,000 Cedar Rapids High School graduates as to the importance to them of each of the 15 components of the quality of life and the extent to which they were satisfied with respect to each of these components.

C.R. Ranking	Fl. Ranking	*Component	Percent Reporting Important or Very Important		Percent Reporting Satisfied or Very Satisfied	
			Total Fl.	Total C.R.	Total Fl.	Total C.R.
(1)	1.	Physical and Mental Health	98.4	99.6	87.3	82.9
(7)	2.	Close Relationship with Spouse	92.8	95.2	82.2	81.9
(4)	3.	Work	89.6	97.3	79.6	78.5
(2)	4.	Develop Maturity	89.5	98.9	73.1	87.0
(14)	5.	Be a parent	87.0	65.0	84.1	86.2
(5)	6.	Developing the Mind	84.9	96.9	54.8	79.0
(10)	7.	Material Comforts	76.4	89.2	74.5	84.8
(6)	8.	Relationships with relatives	76.1	96.3	81.9	81.9
(3)	9.	Close friends	76.0	97.9	87.5	81.9
(13)	10.	Activities which Help or Encourage other Adults or Children	66.6	80.9	62.7	76.7
(8)	11.	Read, listen to music, observe a sporting event	54.3	93.0	70.3	91.2
(9)	12.	Active recreation	53.6	92.0	62.6	81.9
(12)	13.	Self expression	52.2	85.4	56.6	76.0
(11)	14.	Socializing	49.7	86.7	72.3	81.1
(15)	15.	Participation in activities related to local or national government	45.4	54.0	53.5	71.1

*Components as they were ranked from highest to lowest in terms of the percentage responding in the Flanagan Study (1975).

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