

ELEMENTARY SCHOOL STUDENTS' PERCEPTIONS
OF THEIR FUTURES

by
Susan Holcomb

Approved by

Joyce V. Lawrence
Chairperson, Thesis Committee

Claire Mossola
Assistant Professor of
Secondary Education

Michael S. Allen
Assistant Professor of
Elementary Education

Larry D. Woodrow
Chairperson, Department of
Elementary Education

Richard H. Rupp
Dean of the Graduate School

Archives
Closed
LD
175
A40K
Th
488

ELEMENTARY SCHOOL STUDENTS' PERCEPTIONS
OF THEIR FUTURES

A Thesis

Submitted to the Graduate Faculty of Appalachian
State University in Partial Fulfillment of the
Requirements for the Degree
Educational Specialist
in
The Department of Elementary Education

by

Susan Holcomb

M. Ed., Augusta College

April, 1979

Archives
Closed
LD
175
A40K
Th
488

ACKNOWLEDGMENTS

The author would like to express sincere appreciation to the members of the thesis committee, Dr. Joyce Lawrence, Dr. Claire Mamola, and Dr. Michael Allen, for their suggestions, criticisms, and support. The contributions of Dr. Roland Tuttle in the interpretation of research data are also appreciated. A special word of thanks goes to a loving husband who always had a word of encouragement.

CONTENTS

	Page
LIST OF TABLES.	v
Chapter	
1. STATEMENT OF THE PROBLEM.	1
2. REVIEW OF RELATED LITERATURE.	10
Vocational Aspirations	10
Vocational Role Perceptions.	11
Factors Influencing Career Choices	12
Perceptions of Family Roles.	13
Summary.	14
3. PROCEDURES.	15
Selection of the Population.	17
Administering the Questionnaire.	17
Instrumentation.	18
4. ANALYSIS OF DATA.	19
5. DISCUSSION OF DATA.	28
Limitations of the Study	34
Implications of the Study.	35
REFERENCES.	40
APPENDIXES	
A. QUESTIONNAIRE	46
B. SELECTED SAMPLES OF FUTURE DAY ESSAYS	51
C. LETTERS TO PRINCIPALS AND TEACHERS.	56
D. PARENTS' OCCUPATIONS.	59

TABLES

Table	Page
1. What Job Do You Want When You Grow Up?	20
2. Number of Perception of Future Day Statements	21
3. Mean Percentage of Job Statements by School	22
4. Mean Percentage of Job Statements by Sex	23
5. Mean Percentage of Home and Family Responsibility Statements by Sex	24
6. Mean Percentage of Self Statements by School	25
7. Mean Percentage of Self Statements by Sex and Mothers' Employment Status	26
8. Comparison of Future Day Statements by School (In Percentages)	28

Abstract

Girls and boys perceive their futures in different ways. Previous research indicates that boys tend to focus on job details while girls tend to focus on home and family responsibilities in describing their futures. Boys tend to indicate a wide variety of career choices while girls tend to indicate only a limited number of career aspirations.

This study is part of a larger study (Lawrence and Mamola, 1979) in which 410 sixth and seventh grade students completed a four-page questionnaire dealing with their perceptions of their future. The focus of this study is page three of the questionnaire where students were asked to write an essay describing a day in their future. Statements within the essays were classified as job statements, home and family statements, or self statements.

Analyses of variance were computed to determine factors which may have affected percentage of job statements, home and family statements, and self statements. It was found that the school attended seemed to affect job statements and self statements. The interaction of sex and mothers' employment status seemed to affect percentage of self statements. A statistically significant relationship was established between sex and job statements. In addition a significant relationship was established between sex and home and family statements.

Boys and girls in this study were concerned primarily with job responsibilities and with the self. Boys' and girls' career choices generally followed the pattern established by previous research, i. e., boys chose a wide variety of careers while girls were limited in their

career choices. This study also confirmed previous research in that boys made significantly more job statements than did girls while girls made significantly more home and family statements than did boys.

Boys and girls should be aware of many career alternatives. Occupational awareness classes may accomplish this objective. Increased interaction between parents and children may also increase realistic perception of the future and career options. The findings of this study indicate that certain schools seem to foster awareness of job responsibilities. However, further research is needed to determine the effect of different schools on perception of the future.

Chapter 1

STATEMENT OF THE PROBLEM

Elementary school students' perceptions of their futures refers to the way in which students envision themselves as adults in terms of career aspirations and home and family responsibilities. Boys and girls do not perceive their futures in the same way. This study will investigate the different ways in which boys and girls envision their futures, including the range of their career choices. Elementary school students are defined in this study as students attending kindergarten through grade eight. The population for this study includes sixth and seventh grade students attending urban and rural schools in North Carolina.

Middle grade students are gradually moving away from an egocentric, absolute attitude to social thinking and perception of complex relationships with others. These students are beginning to extend their concept of self through relationships with their peers. Through day-to-day transactions in the school setting, the family setting, and the peer setting, and through taking roles and identifying with the appropriate sex models, middle school students increase the complexity and organization of the self (Gordon, 1969, 1975).

Middle school students are passing through transescence, the stage of development which begins prior to the onset of puberty and extends through the early stages of adolescence (Romano, 1979). They are often called transescents because they are passing through this stage

(McEwin and Lawrence, 1978).

According to Gordon (1969) one of the changes in transescence is the broadening of perception to include future time. The inclusion of future along with present and past in their perceptual scheme and in their self-systems represents a major step toward adulthood.

Transescents begin to examine themselves from the perspective of their abilities to make a living (Gordon, 1969).

Hurlock (1978) indicates that the career choices of children are unrealistic. The period of fantasy choices which lasts up to the eleventh year is characterized by occupational choices which are indiscriminate. The vocational choices of older children become more stable as they increase their knowledge about vocational opportunities and become more aware of their abilities and limitations.

One major focus of this research is the range of selection of career choices and the reality with which students view their prospective careers in terms of amount of education and description of the actual work. Sex differences in the responses are examined.

The incidence of students pursuing a career because one or both parents is involved in that career is noted. The influence of other models on students' career choice is also examined.

In addition to students' career aspirations, incidence of inclusion of home and family responsibilities in a description of future day, used in this study to refer to perception of the future, constitutes a portion of the research. Girls' and boys' responses are compared. According to Hurlock (1978) boys as a group tend to aspire higher than girls. Many girls develop the habit of aspiring lower than their abilities justify as a result of years of indoctrination about their inferiority (Hurlock, 1978).

Such information has implications for the curriculum and instructional practices. Boys and girls alike should be encouraged to prepare for a career to support themselves financially. Girls should realize that even if they do marry, only forty percent of all jobs in America allow one individual to support a family (Smith, 1978). A rising standard of living and rising expectations about "the good life" have made it necessary for both husband and wife to work to support a family. All students should be encouraged to pursue the career of their choice.

Students should be provided practical experiences in a variety of vocations. Such experiences could be beneficial at a time when vocational interests are subject to change and talents and abilities are being discovered.

Children differ in their visions of their futures. Boys are concerned about their future professions and are specific about their choices while girls are thinking about a husband and future family responsibilities. These differing perceptions stem from the sex roles that are operative for girls and boys.

Girls and boys receive different treatment early in life. Toys perpetuate the stereotype that women are housewives and men engage in exciting careers outside the home. Girls receive miniature household equipment while boys receive cars, trucks, and doctor's kits (Schlossberg and Goodman, 1972).

Sex differences are evident in play activities. Boys engage in active play and highly organized games which involve competition. Girls participate in more sedentary activities not involving competition such as cooking or dressing up.

Girls and boys differ in their verbal skills. Girls tend to be

superior in verbal skills while boys tend to excel in mathematics and spatial relations tasks (Elkind, 1974). Adolescent girls may continue to build their verbal skills while they allow their mathematical and science skills to languish because they think society expects them to conform to sexual stereotypes (Elkind, 1974).

As students progress through school, they encounter sex bias in instructional materials. Females are portrayed as dependent individuals who are housewives or who assume semiprofessional roles accepted as typical for women while men are portrayed in a wide variety of roles though they are never involved in domestic activities (Ashton, 1978; Britton, 1973; Stewig and Higgs, 1973; Weitzman and Rizzo, 1975; Zimet, 1975). Sex-biased materials limit female career aspirations by indicating that all females grow up to be wives and mothers and damage female self-concept by indicating that girls are inferior and helpless (Lawrence, 1978).

During middle and late childhood boys tend to show more dominant behavior and to be more quarrelsome than girls (Elkind, 1974). The stage is being set for adulthood when boys will hold dominant positions of power while girls occupy positions in which they can help others.

Children begin making their career choices independent of their parents' choices during preadolescence. A familiar dream at this age is being the center of attention as an entertainer or famous author (Elkind, 1974).

Iglitzen's (1971) study verified sex differences in perception of the future. In descriptions of their future day boys tended to focus exclusively on details of job and career. Girls included extensive and detailed accounts of their housewifely routine even when they had

indicated career aspirations. For many of the girls the description of household duties seemed far more prominent than the job.

Social stereotypes and operative sex roles seem to restrict girls in their free choice of future roles (Iglitzen, 1971). Generally girls indicate a desire to pursue the altruistic professions of teaching and nursing even though they view most professions as open to either sex for society in general. Boys' career choices cover the spectrum of alternatives, including positions of power.

The pattern is repeated when teenagers project themselves into the future. Boys see themselves as successful career persons while girls see themselves as wives and mothers. Girls' expectations of a life spent in homemaking are unrealistic since nine out of ten females will be employed on a full-time basis at some point in their lives (Frazier and Sadker, 1973).

Transescent boys and girls establish ego identity in different ways. Boys tend to establish their identities by becoming increasingly independent of the family while girls tend to establish their identities by developing intimate relationships with other people (Elkind, 1974). Girls are developing their social skills in establishing these relationships.

In addition to developing social skills, girls should develop an identity that confirms them as individuals (Elkind, 1974). College women even camouflage their potential because they believe that men desire women who are passive and give domestic duties priority over professional development (Frazier and Sadker, 1973). According to Horner (1969) women avoid success because they have learned that it is unladylike to be too intellectual and that pursuing a career can lead to

distrustful tolerance at best and prejudice at worst. Horner (1969) indicates that while many legal and educational barriers to female achievement have been removed, a **psychological** barrier remains.

Girls tend to aspire to become nurses, secretaries, and teachers. Such positions are perpetually filled by women because these are professions that society has deemed open to women (National Education Association, 1977). According to Hurlock (1978) boys are expected to go into leadership roles in business, industry, and the professions, while girls are encouraged to go into areas where their work will contribute to the welfare of others.

One obstacle women seem unable to surmount in attempting to enter a broader variety of professions is the requirement for math and science skills. Intelligence tests and measures of school achievement imply that girls are superior in verbal skills while boys excel in math and science skills. A probable explanation for sex differences in math and science skills is girls' neglecting these skills while developing their social skills.

Although women constitute fifty-two percent of the country's population, they represent less than one-half of one percent of all employed doctoral scientists in engineering and 5.7 percent of all employed doctoral scientists in mathematics (Women and Minority Ph.D.'s In the 1970's: A Data Book, 1977). This situation is partly a result of young women being diverted from taking four years of math and science by guidance personnel and parents (Educational Testing Services Developments, 1978). Math and science skills are not developed because society assumes that young women will become teachers, secretaries, and nurses, and will not need the training. This assumption is doubly false

because all young women do not desire to enter these professions and because four years of math and science may be required for these professions. Programs utilizing older girls to work with younger girls in improving attitudes toward math and science have proven successful. The encouragement of the older girls increases the confidence of the younger girls in dealing with the subject matter and helps the younger girls see the possibilities of math or science careers (Educational Testing Services Developments, 1978).

Existing programs designed to broaden students' knowledge of careers may unwittingly be perpetuating stereotypes by not providing cross-sex role-models for jobs that have been, by custom, related to sex. Provision of such models may be a problem due to the paucity of non-traditional representation of males or females in the specific professions.

Clearly a problem exists when half the population is employed in low-paying subservient positions while a fair proportion of the remainder occupy high-paying positions of power. In 1977 the mean income for males was \$12,063 as opposed to a mean income for females of \$5,291 (Statistical Abstract of the United States: 1978, 1978). The problem begins when girls are unable to realistically envision their futures and are restricted in the career choices that they do indicate. They cannot imagine themselves as other than wives and mothers and do not prepare themselves for other possibilities. Girls tend to believe that they do not control the amount of success they experience, but rather attribute success to luck (Nicholls, 1975). The attribution of success to luck results in an affective reaction of decreased pride and a cognitive reaction of expectation of possible change in future

performance while the attribution of failure to lack of ability results in an affective reaction of increased shame and a cognitive reaction of expectation of similar performance in the future (Bar-Tal, 1978). Hence girls tend to view themselves as only controlling their failures while their successes are determined by outside forces. Boys, on the other hand, generally envision themselves as successful career persons and neglect development of skills which will enable them to share home and family responsibilities as adults. Dweck and Reppucci (1973) found that boys tended to place more emphasis on the role of effort in determining the outcome of their behavior. Thus boys tend to view themselves as controlling both their successes and failures by the amount of effort they exert. It would seem that part of the reason that boys can envision their futures in terms of career aspirations is their belief that they can control their futures. Girls, on the other hand, experience difficulty in perceiving their future careers partly because they attribute their success to luck and thus have little control over their success.

One method of approaching this problem is examining children's perceptions of their futures, determining what factors influence these perceptions, and using this information to design and implement programs which will cause these perceptions to become more realistic. It is unrealistic to assume that these steps will eliminate operative sex roles since previous research has emphasized the existing problem and very little improvement is evident. However, a change in stereotyped instructional procedures and materials would be a step in the right direction.

Exposing students to a broad variety of vocations through

practical experiences and presenting each vocation as a viable option for all students would be beneficial since vocational interests become more prominent and realistic during transescence. Since vocational choices are changeable during transescence, such exposure would cause students to become more aware of hidden talents and abilities. Hopefully such training would broaden students' career aspirations to include a broad spectrum of alternatives.

Chapter 2

REVIEW OF RELATED LITERATURE

Literature dealing with children's perceptions of their futures focuses on several points. Girls are limited in the careers they perceive open to them as individuals while boys envision a broad variety of options. Perceptions of appropriate societal vocational roles are somewhat different. Some authors list factors which account for the narrowness of girls' perceptions of career options. Research indicates that children's perceptions of family roles are related to sex role flexibility.

Vocational Aspirations

Research indicates that girls express limited career aspirations while boys indicate a wide variety of choices (Butler, 1975; Hewitt, 1975; Looft, 1971a; Siegel, 1973; Witty, 1961). Girls' career choices could be characterized as sex-role stereotyped and altruistic while boys' career choices promise excitement and adventure (Chaney, 1969; Hewitt, 1975; Krebs, 1970; Looft, 1971a). Research dealing with desired occupational goals and realistic occupational goals (Hewitt, 1975; Looft, 1971b) found that girls narrowed their career choices mainly to nurse or teacher when they were forced to face reality. A characteristic response was that of a girl who initially stated that she wanted to be a doctor. When faced with a question dealing with realistic aspirations, she

said, "I'll probably have to be something else - maybe a store lady" (Looft, 1971a, p. 366).

Williams (1978) found that while boys aspire to a greater variety of occupations, girls aspire to high level occupations. This is due to the fact that most girls indicated a desire to become nurses and teachers, deemed middle level professions by this study, while boys' aspirations were more diverse, including high, middle, and low level professions. Butler (1975) and Siegel (1973) confirmed the diversity of male as opposed to female career choices in concluding that males listed twice as many career titles as females.

Vocational Role Perceptions

Research verifies that some elementary students hold stereotypes^{d views} about societal vocational roles based on sex (Crow and Taebel, 1976; Scheresky, 1977). One study found that students are more ready to exclude women from men's work than men from women's work (Schlossberg and Goodman, 1972). Such a conclusion implies that children view the world as a man's world in which women can accomplish only certain tasks while men can do anything. Several investigations found that girls view professions as open to both sexes for society in general yet view only traditionally accepted female careers for themselves (Iglitzen, 1971; Lerner, Benson, and Vincent, 1976a; Lerner, Benson, and Vincent, 1976b).

Investigations have established a relationship between children's perceptions of the roles of men and women in society and maternal employment. Children whose mothers work outside the home hold less sex-role stereotyped ideas about male and female societal roles (Bacon and Lerner, 1975; Etaugh, 1974; Iglitzen, 1971).

Factors Influencing Career Choice

Socialization, sex bias in instructional materials, academic instruction, parents' careers, and perception of rewards influence career choice. The indication is that these factors promote the idea that females are limited to certain roles while males are limited to others.

From preschool to adulthood boys and girls are "subjected to different definitions of appropriate occupational orientations" (Butler, 1975, p. 1). Boys and girls are reared in different ways, taught different skills, and rewarded for different acts. Preschool boys are generally found in the block corner while preschool girls congregate in the housekeeping and art areas. It is no small wonder that limitations exist in girls' career options very early since they are socialized to believe that they can only successfully perform domestic activities.

As children progress from the block and household areas of the preschool to elementary school, they encounter reading as a major activity. Reading series "generate significant influences on students in terms of their current and future roles in our society" (Britton, 1973, p. 140).

Though one would hope that both men and women would be represented as competent, independent individuals in the first academic literature a child encounters, research concludes that sex bias is rampant in literature. Materials which portray women as dependent individuals who become housewives or assume semiprofessional roles accepted as typical for women perpetuate a specific image of women in the minds of elementary school children by "circumscribing the girl-woman's consciousness

of her own possibilities for self-fulfillment" (Zaret, 1975, p. 42).

It is encouraging that in some schools successful math and science programs rely on older girls to counsel, encourage, and tutor younger ones (Educational Testing Services Developments, 1978). Younger girls become more confident that they can handle the subject matter and begin to see the possibilities of math or science as a career.

Parents reinforce girls' limited career aspirations by differentiating aspirations for daughters and sons. According to Butler (1975) mothers tend to hope that their daughters will become nurses or teachers while their sons will pursue professions such as medicine or law.

Research has attempted to link parents' careers and children's vocational aspirations. Doss (1975) found that television and other models exerted a greater influence on children's career choice than parents' careers. Vigod (1972) found that the higher the socio-economic level of the family, the higher the career aspiration of the child, though the correlation was much smaller for girls than for boys.

Since boys and girls are rewarded differently, their perceptions of rewards for working differ. Elementary school boys in grades one through six view money as sufficient reward while girls value service to others a sufficient reward (Corine, 1978). This conclusion explains in part why so many females choose altruistic careers.

Perceptions of Family Roles

Girls and boys view future family responsibilities differently. Boys tend to concentrate on career duties while girls tend to concentrate on home and family responsibilities in describing their future day (Iglitzen, 1971).

Baldigo (1976) explored elementary school children's perceptions of family roles by presenting a short story where roles were completely reversed from the traditional sex role stereotype of mother as housewife and father as breadwinner. Even the roles of the children in the family were nontraditional in that the little boy exhibited dependence while the little girl exerted her independence and competence. Interestingly enough, boys reacted more negatively to the little boy than did girls. Apparently an independent, competent little girl is more readily accepted than a dependent little boy. The study established a strong relationship between the child's perception of parental household division of duties and sex role flexibility. Clearly the child's view of family dynamics is an important determinant of sex role conceptions.

Summary

Boys indicate diverse personal career aspirations while girls are limited in their expressed career choices. Girls tend to view more careers as open to both men and women than do boys.

Girls learn early through socialization and school experiences that very few options are appropriate for them as adults. The literature they read confirms that they are dependent and will probably become housewives or perform some semiprofessional function, expecting little or no monetary reward.

Boys tend to exclude home and family responsibilities from their perceptions of their futures while girls tend to emphasize them. The child's view of family dynamics is an important determinant of sex role flexibility.

Chapter 3

PROCEDURES

This study was undertaken as part of a larger study (Lawrence and Mamola, 1979) which began with the development of a questionnaire. The main focus of this study is to be found on page three of the questionnaire. Students were asked to write an essay describing a day in their future.

The questionnaire (Appendix A) consisted of four pages. Page one contained questions dealing with parents' occupations, students' career choices, home settings, estimation of time necessary to train for a chosen vocation, and the influence of parents and/or significant others in career choice. The questions were pooled by the researchers participating in the study. Page two consisted of a list of occupations students were required to designate as open to both men and women, men, or women. Occupations were initially chosen from the Dictionary of Occupational Titles (1977). Occupations were eliminated by having six individuals, five professors and one graduate student, Q-sort occupations into the following categories; active/passive, traditional/nontraditional, security/risk-taking, and helping/initiating. Occupations were deleted which were not placed in the same category by two or more individuals. The choices were then randomly arranged on the page. There were an equal number of choices from each category. Page three, which is the focus of this study, consisted of one question which required students to write an essay describing a day in their future. Lines were

provided to encourage students to write. Page four required students to classify home responsibilities as theirs, their mother's, their father's, or other persons'. Jobs to be done in the home such as cooking supper, building shelves, cleaning house, and paying bills were randomly listed. An equal number of jobs could have been done by men, women, or children. Questions were reviewed independently.

The questionnaire was first presented to a pilot group of 31 seventh graders consisting of 16 boys and 15 girls. This heterogeneous group was located in a middle school in North Carolina.

Analysis of pages one and three of the pilot group questionnaire yielded data which agree with prior research in this area. Boys indicated more variety in their career choices than did girls. Boys chose traditional male careers while girls' career choices included traditional and nontraditional choices.

Very few students in the pilot group indicated a desire to pursue their parents' careers. Significant others, such as aunts, uncles, and friends, were mentioned more frequently as influencing career choices.

A system was devised for analyzing the statements in the essay concerning perception of future day involving classifying statements as related to job responsibilities, home and family responsibilities, and the self. Examples from each category include:

Job statement: I answered the telephone and talked over a business deal.

Home and family statement: I cooked lunch and washed dishes for my family.

Self statement: I took a bath and washed my hair.

One point was given for each statement from each category. Statements were then expressed as a percentage of total statements since the objective of the question was not to evaluate the writing ability of the students but rather to determine how they viewed their futures. For example, a student might write an essay in which 20 percent of the statements were related to job responsibilities, 40 percent were home and family-related, and 40 percent were self statements (see Appendix B for selected samples).

Selection of the Population

The population consisted of 410 sixth and seventh grade students, 190 boys and 220 girls, attending both urban and rural schools in North Carolina. A major portion of the population was acquired after the research study (Lawrence and Mamola, 1979) was introduced to a middle school graduate research class in southwestern North Carolina. The teachers within the class volunteered their sixth and seventh grade students on the days requested. The researchers also arranged to administer the questionnaire to sixth and seventh grade students in other areas. All teachers and principals involved in the study received letters describing the study (Appendix C) prior to the administration of the questionnaire.

Administering the Questionnaire

School facilities varied in size, age, and geographic setting. Some schools were new and housed over one thousand students while others were older and housed fewer students. The organization of the schools varied, including K-8, 6-7, 6-8, and K-6 combinations. A broad range

of socioeconomic levels was represented in the population.

All questions, lists, and directions were read to the students. Students were not allowed to talk while completing the questionnaire in order to avoid peer influence. Teachers were free to leave the classroom since a team of researchers administered the questionnaire. Students were given ample time to complete the questionnaire. Those who required more time to complete page three, the essay dealing with perception of the future, were given extra time.

Students were generally receptive to completing the questionnaire. Some comments included "They want to know about that male chauvinist stuff!" and "My mother does everything." Most were curious concerning the purpose of the questionnaire and seemed amazed to find that the researchers were interested in their perceptions of their futures. All testing was completed within four days.

Instrumentation

Questionnaires were grouped according to school, grade level, and sex, and were numbered in order of completion. For instance, the questionnaires completed in the first testing session on the first day were numbered beginning with number 1.

After the data were transferred to computer cards, they were analyzed by Appalachian State University Computer Center. Analysis of the data was completed on a UNIVAC 90/60 computer using cross tabulations and one- and two-way analyses of variance. The SPSS computer program for analysis of variance was used to process data.

Chapter 4

ANALYSIS OF DATA

The demographic characteristics of the population may be summarized as follows. Participants in the study included 178 sixth graders, 43 percent of the total population, and 232 seventh graders, 57 percent of the total population. Home settings varied as follows: 322 students, 79 percent of the population, lived with both parents; 69 students, 17 percent of the population, lived with their mothers; 7 students, 2 percent of the population, lived with their fathers; and 8 students, 2 percent of the population, lived with grandparents. Mothers employed outside the home included 267 mothers, or 65 percent of the total population, while mothers not employed outside the home numbered 143, composing 35 percent of the population. Employed fathers included 365 fathers, 89 percent of the population. Only 10 percent of the fathers, or 40, were not employed (Lawrence and Mamola, 1979).

Lawrence and Mamola (1979) investigated whether parents and/or significant others were involved in careers in which students indicated an interest. Students who indicated friends as pursuing the career in which they had an interest numbered 116. Only 37 students indicated an interest similar to their fathers' career. Only 8 students indicated an interest in their mothers' career.

The grand mean of careers perceived as open to both sexes by the population was 10.50 of a possible 18 choices (Lawrence and Mamola, 1979).

TABLE 1

WHAT JOB DO YOU WANT WHEN YOU GROW UP?

Accountant	Advertising	Appliance Repair	Architect	Athlete	Automobile Designer	Racer	Bus Driver	Brick Layer	Carpenter	Barber
Boys	1	1	1	26	1	10	0	1	5	1
Girls	0	0	1	1	0	0	1	0	0	0
Cashier	Clerk	Chemist	Computer Technician	Day Care	Dentist	Entertainer	Factory Worker	Fashion Designer	Fireman	Fisherman
Boys	0	1	2	0	0	2	1	4	0	4
Girls	6	1	1	3	1	7	0	0	2	0
Gas Station	Doctor	Horse Trainer	Juvenile Counselor	Lawyer	Livestock	Machinist	Marine Biologist	Mechanic	Model Repair	Motorcycle Nurse
Boys	1	7	1	4	1	1	1	11	0	1
Girls	1	8	1	3	0	0	0	0	10	0
Oceanographer	Optometrist	Photographer	Pilot	Policeperson	Printer	Professor	Sawmill Operator	Scientist	Secretary	
Boys	3	0	1	5	6	1	0	1	6	0
Girls	0	1	5	0	5	0	2	0	0	26
Sailor	Stewardess	Store Owner	Rodeo Stunt Man	Teacher	Technician	Truck Driver	Undercover Policework	Veterinarian	Welder	Well Driller
Boys	1	0	4	5	1	25	1	5	1	1
Girls	0	2	0	52	1	1	0	17	0	0
Wildlife Preserve	No Writer	Freight Poet	Artist Loader	Animal Shelter	Dental Hygienist	Named a Place	Military Electrician	Astronaut		
Boys	1	3	1	2	0	9	6	1	1	0
Girls	0	1	1	0	1	0	0	0	0	0
Psychiatrist	Cosmetologist	Book Keeper	Mill Worker	Housewife	Waitress	Broadcasting Sales	Executive Supervisor			
Boys	0	0	2	0	1	1	1	1	1	1
Girls	1	7	1	2	1	0	1	1	0	0
Real Estate	Telephone	Don't Know								
Boys	0	0	2							
Girls	1	1	4							

Sex seemed to affect careers perceived as open to both sexes ($F = 4.947$, $df = 1,383$, $p < .027$). The school attended by the students also seemed to affect the number of careers perceived as open to both sexes ($F = 4.247$, $df = 6,383$, $p < .0001$).

Boys and girls made a total of 80 career choices. Boys' most frequent choices included athlete, mechanic, race car driver, and truck driver (see Table 1). Girls' most frequent career choices included model, nurse, secretary, teacher, and veterinarian (see Table 1). Boys named 55 career choices while girls named 40.

In addition to career choice, boys and girls also indicated their perception of future day in essays. The total number of statements made in the essays concerning perception of future day was 2479. Boys made 950 of these statements while girls made 1529. There were 980 job statements, 40 percent of all statements; 362 home and family statements, 12 percent of all statements; and 1137 self statements, 48 percent of all statements. Boys made 441 job statements while girls made 539. Boys made 48 home and family statements in comparison with 314 made by girls. Boys made 461 self statements and girls made 676 (see Table 2).

TABLE 2

NUMBER OF PERCEPTION OF FUTURE DAY STATEMENTS

	Boys	Girls
Job Statements	441	539
Home and Family Statements	48	314
Self Statements	461	676
Total	950	1529

A mean percentage of job statements, home and family statements, and self statements was computed for each school. In addition, a grand mean was computed for the entire population for each category of statements.

School attended seemed to affect the job statements made by the students ($F = 7.182$, $df = 6,383$, $p < .0001$). The grand mean of job statements was 48.17. School #3, for example, had the highest mean percentage of job statements while school #7 had the lowest mean percentage of job statements (see Table 3).

TABLE 3

MEAN PERCENTAGE OF JOB STATEMENTS
BY SCHOOL

School	Mean Percentage of Job Statements
3	66.25
4	52.28
5	50.81
1	47.77
2	43.56
6	42.43
7	29.48

A significant relationship was established between job statements and sex ($F = 16.915$, $df = 1,383$, $p < .0001$). Boys made significantly more job statements than girls (see Table 4).

TABLE 4

MEAN PERCENTAGE OF JOB STATEMENTS
BY SEX

Sex	Mean Percentage of Job Statements
Boys	55.65
Girls	41.76

Mothers' employment outside the home did not seem to affect job statements made by girls and boys ($F = 2.124$, $df = 1,393$, $p > .146$).

The school the students attended did not seem to affect home and family statements ($F = 2.096$, $df = 6,383$, $p > .053$). There was no significant difference in the number of home and family statements made by students attending different schools.

A significant relationship was established between home and family statements and sex ($F = 37.635$, $df = 1,383$, $p < .0001$). Girls made significantly more home and family statements than boys (see Table 5).

TABLE 5

MEAN PERCENTAGE OF HOME AND FAMILY RESPONSIBILITY
STATEMENTS BY SEX

Sex	Mean Percentage of Home and Family Statements
Boys	4.92
Girls	18.12

There was no significant difference between home and family statements made by students whose mothers worked and students whose mothers did not work ($F = .262$, $df = 1,393$, $p > .609$). Neither group made more home and family statements than the other.

The school the student attended seemed to affect the number of self statements ($F = 7.914$, $df = 6,383$, $p < .0001$). The grand mean of self statements was 39.33. Students attending school #7, for example, made more self statements than students attending other schools. Students attending school #3 made fewer self statements than students attending other schools (see Table 6).

TABLE 6

MEAN PERCENTAGE OF SELF STATEMENTS
BY SCHOOL

School	Mean Percentage of Self Statements
7	57.93
6	48.24
4	37.29
2	37.25
5	33.37
1	30.81
3	24.66

A significant relationship was established between self statements and the interaction of mothers' employment outside the home and sex ($F = 8.025$, $df = 1,393$, $p < .005$). Mother's employment outside the home alone did not seem to affect self statements ($F = 1.632$, $df = 1,393$, $p > .202$). Sex alone did not seem to affect self statements ($F = .043$, $df = 1,393$, $p > .836$). However, boys whose mothers worked outside the home made more self statements than boys whose mothers worked at home. Girls whose mothers worked at home made more self statements than girls whose mothers worked outside the home (see Table 7).

TABLE 7

MEAN PERCENTAGE OF SELF STATEMENTS BY SEX
AND MOTHERS' EMPLOYMENT STATUS

Mothers' Employment Status	Boys	Girls
Working Outside the Home	42.01 (126 boys ¹)	35.48 (137 girls ²)
At Home	33.78 (56 boys ³)	46.83 (81 girls ⁴)

1, 2, 3, 4Some students were not included in each group because they did not complete an essay dealing with perception of future day. Exact numbers are as follows: 3 - boys whose mothers worked outside the home, 1 - girls whose mothers worked outside the home, 5 - boys whose mothers worked at home, and 1 - girls whose mothers worked at home.

The school the student attended seemed to influence job statements and self statements (see Table 8). A comparison of job statements, home and family statements, and self statements by school reveals the emphasis students in different schools placed on the categories of future day statements. Students attending school #3 made more job statements than students attending other schools but fewer home and family statements and self statements than students attending other schools. Students attending school #7 made fewer job statements than students attending other schools, an average number of home and family statements when compared with other schools, and more self statements than students attending other schools.

TABLE 8

COMPARISON OF FUTURE DAY STATEMENTS BY SCHOOL
(IN PERCENTAGES)

Mean Percentage of Job Statements	Mean Percentage of Home and Family Statements	Mean Percentage of Self Statements
School #3 - 66.25	School #1 - 21.00	School #7 - 57.93
School #4 - 52.28	School #2 - 18.78	School #6 - 48.24
School #5 - 50.81	School #5 - 15.43	School #4 - 37.29
School #1 - 47.77	School #7 - 12.50	School #2 - 37.25
School #2 - 43.56	School #4 - 9.37	School #5 - 33.37
School #6 - 42.43	School #6 - 9.06	School #1 - 30.81
School #7 - 29.48	School #3 - 8.62	School #3 - 24.66

Chapter 5

DISCUSSION OF DATA

Most of the students came from traditional home settings in that they lived with both parents and at least one parent was employed. Many home settings could be characterized as lower middle class in that most parents were employed in local industry, predominantly textile industry. Parents' jobs included 62 different kinds of work for men and 36 for women (Appendix D). These traditional lower middle class home settings could have influenced students' perception of the future.

Findings concerning the influence of parents and/or significant others on career choice lend support to Doss's (1975) conclusion that parents do not exert as much influence on career choice as other models. While television and other models appeared to have more influence on Doss's (1975) sample, friends seemed to influence the career choice of the middle school students in this study.

A significant relationship was established between sex and perception of careers as open to both sexes. Girls perceived significantly more careers as open to both sexes. This finding supports Iglitzen's (1971) research in which a significantly higher proportion of girls gave an open access answer on every one of the job categories.

While girls were open in their perception of careers as open to both sexes, they made very traditional career choices for themselves. Over half of the girls aspired to become teachers, nurses, and

secretaries. In Iglitzen's (1971) study girls tended to choose teacher, artist, stewardess, and nurse as viable career options. In both instances, girls' career choices were limited to altruistic professions which society deems open to women. Girls seem to be limited to aspiring to careers which involve no risk-taking and which will please the members of society when they should be considering careers in which they have a genuine interest regardless of society's conventions. While there may currently exist a paucity of female models in careers such as aviation and scientific fields such as marine biology and oceanography, girls could be successful in these and other nontraditional fields. Janet Guthrie is an example of a woman who is pursuing a nontraditional career, racing, with some success. It is unfortunate that girls are so conscious of society's demands that they limit themselves to careers in which they can serve others and overlook professions which offer more pay, prestige, and job satisfaction.

A small percentage of the girls did make nontraditional career choices. These choices included veterinarian, doctor, lawyer, and dentist.

While girls' career choices could be characterized as altruistic, boys' career choices promised power, action, and adventure. The automotive field was a popular alternative for the boys in this study in that almost one-fourth of all the boys listed automobile racer, mechanic, or truck driver as possible career choices. It is interesting to note that power is involved in all these choices while girls' career choices tended to focus on having power over others through helping them rather than exerting control over them. For example,

racers and truck drivers must be able to control their vehicles. Mechanics exert power in that they keep cars and trucks in working order. Decision-making is a part of these careers. Yet girls tend to prefer careers in which their decisions will be made for them by a higher authority. In the case of teaching major decisions are made by principals and other administrators. Doctors order treatments for patients which nurses then give. While secretaries may indeed make decisions concerning where meetings are to be held or other minor matters, their bosses generally decide matters of importance.

Further proof of the fact that girls are limited in their career choices when compared with boys lies in the range of career selection made by the girls and boys in this study. Girls' career choices included only 40 of the 80 career titles while boys' career choices included 55 titles.

The students in this study placed emphasis on job statements and self statements in their essays regarding perception of future day. Since the total percentage of job statements, home and family statements, and self statements was 100 percent, it is possible that self statements may have composed a small percentage of total statements because a high percentage of job statements was made. On the other hand, self statements may have constituted a high percentage of the total while job statements composed a low percentage. Boys made significantly more job statements than did girls. Boys seem to be responding to society's expectations that they will hold steady jobs and be competitive as adults. The same pattern was apparent in Iglitzen's (1971) study. There was no significant difference in the self statements made by boys and girls. The focus on self statements by both boys and girls indicates

that they hold the egocentric point of view typical of early adolescence. That is, they are very concerned with themselves and do not recognize the difference between their own preoccupations and those of others.

A significant relationship was established between sex and home and family statements. Girls made significantly more home and family statements than did boys. Girls seem to be responding to society's expectations that as adults they will be good homemakers and nurturant mothers. The increased number of home and family statements made by girls as opposed to boys also seems to indicate that girls are more concerned with their future home responsibilities than are boys. However, home and family statements did not exceed one-fourth of all perception of future day statements of girls or boys. This leaves room for hope that girls are planning to pursue careers.

The school attended seemed to affect job statements and self statements. Students attending schools #3 and #4, for example, made more job statements than students attending other schools. The fact that both schools offered occupational awareness classes could account for the significant difference in job statements. Students attending school #3 made fewer home and family statements and fewer self statements than students attending other schools. They tended to emphasize job details and deemphasize home and family responsibilities and self statements. On the other hand, students attending school #7 made fewer job statements in comparison with students attending other schools and more self statements than students attending other schools. These students seem so preoccupied with themselves and the present that they

could not project themselves into the future as job-holding adults with families. Students attending school #1 made more home and family statements in comparison with students attending other schools. However, their statements regarding home and family constituted less than one-fourth of all their future day statements.

The school attended did not seem to affect home and family statements. Students attending some schools made more home and family statements than students attending other schools. However, there was no significant difference in the number of home and family statements made by students attending different schools.

Job statements ranged from composing about three-fifths of all future day statements to composing one-fourth of all statements. Students attending schools #5, #1, #2, and #6 emphasized job details in that almost half of all their statements dealt with future career responsibilities. This focus on future employment responsibilities implies that transescents are beginning to think about their abilities to make a living as indicated by Gordon (1969).

Home and family statements did not constitute more than 21 percent of all perception of future day statements in any essay. This lack of emphasis on home and family responsibilities indicates that future home and family responsibilities were not important to the students at the time that they completed the questionnaire. The indication is that they were concerned with future career planning and responsibilities and with themselves.

Students attending schools #7 and #6 were most concerned with themselves as indicated by their high percentage of self statements.

Self statements composed approximately one-third of all statements made by students attending schools #4, #2, #5, and #1. Students attending school #3 were least concerned with the self since self statements made up less than one-fourth of all their future day statements.

No significant relationship was established between whether or not the mother worked outside the home and job statements or home and family statements. In addition maternal employment status did not seem to affect self statements when it was considered as an isolated factor.

The interaction of mothers' employment status and sex seemed to affect self statements. Boys whose mothers worked outside the home made more self statements than boys whose mothers worked at home. Boys whose mothers worked outside the home were more concerned with themselves in their projection into future day possibly because they are given more responsibility in terms of keeping track of their possessions and more jobs around the house. Boys whose mothers work at home may have less responsibility for themselves and their possessions because their mothers clean their rooms for them, care for their clothing, and probably keep track of their possessions for them. On the other hand, girls were more concerned with themselves in their projection into the future if their mothers were housewives. Possibly these mothers are instilling their views of the value of personal appearance and concern with the self in their daughters. Girls whose mothers worked outside the home were less concerned with the self possibly because of increased self responsibilities. In other words, girls whose mothers work outside the home probably have more responsibility in terms of domestic duties and caring for siblings than girls whose mothers work at home. Hence they are more concerned with caring

for others than caring for themselves.

It is interesting to note that working mothers have a reverse effect on their sons and daughters when compared with nonworking mothers. In essence, boys whose mothers work outside the home are more concerned with themselves than girls whose mothers work outside the home. Boys whose mothers work at home are less concerned with themselves than girls whose mothers work at home. Evidently girls whose mothers work outside the home are stimulated to consider other points of view by their increased self responsibilities. Evidently their increased responsibilities in terms of caring for others make them more aware of other points of view than girls whose mothers work at home. On the other hand, boys apparently become more concerned with themselves and their point of view when they have increased self responsibilities. That is, they concentrate on themselves more when they must care for their own belongings. Boys are not as concerned with themselves when their mothers work at home and care for their belongings.

Limitations of the Study

This study had several limitations. Certain factors were found to significantly affect job statements, home and family statements, and self statements. However, other factors could have caused the patterns established for the perception of future day statements.

Further research involving both urban and rural populations in other parts of the country will be necessary to specifically determine how middle grades students perceive their futures. The population for this study included both urban and rural students in North Carolina.

A significant relationship was established between the school

the student attended and job statements and self statements. However, further research is necessary to determine the effect of different schools on perception of future day. The effect of the school attended on the various categories of future day statements was not a focus of this study.

Mothers' employment outside the home did not seem to affect job statements, home and family statements, or self statements when it was considered as an isolated factor. The interaction of mothers' employment status and sex did seem to affect self statements. Further research is necessary to establish the effect of maternal employment status on students' perceptions of the future.

Implications of the Study

When this study is compared with Iglitzen's (1971) study, several differences in career choice and perception of future day are evident. These differences could be a result of the different ages of the students who composed the population -- Iglitzen utilized fifth graders while this study had a population of sixth and seventh graders -- or the differences could be a result of the time which had elapsed between the two studies. However, one outstanding implication of both studies is that girls remain limited in their career choices. This limitation could be a result of responding to society's greater demand for conformity of girls, a lack of female models in nontraditional careers, or the inability, from a developmental perspective, to envision the possibilities which are truly open to them. Whatever the cause, girls should be aware of the many career options available to them and should be encouraged to pursue these options whether they are

traditional or nontraditional. Both girls and boys should be stimulated to pursue the career of their choice whether it has been previously followed by their sex or not. Choosing a career which has not generally been elected by one's own sex may lead to tension because of the challenges which one must face. However, in order for society to make optimal use of human resources, sex role and occupational role must be separated. Since the family and the school bear the responsibility for supplying youth with information about the broad range of vocational choice in our technical society, both institutions should stimulate boys and girls to choose careers on the basis of interests and abilities, not sex. The students in this study were probably guided in their career choice more by what they would like to do than by what they are capable of doing. However, as they become more knowledgeable about vocational opportunities and about their own abilities, their career choices will become more stable. Hence, it is imperative that students are made aware of the vast career opportunities awaiting them and encouraged to pursue those opportunities which best fit their interests and abilities, not their sex. Girls should be stimulated to jettison the indoctrination they have received regarding their inferiority and adopt career aspirations more in line with their abilities.

A significant relationship was established between the school the student attended and job statements. This relationship may indicate the importance of the school in the dispensing of career information. This study seems to indicate that occupational awareness classes do affect job statements in that the schools with the highest percentage of job statements did offer occupational awareness classes. Schools, then, should encourage a spirit of adventure in students which causes

them to break the mold of choosing sex-appropriate careers and foster election of professions which fit the interests and abilities of the individual. This implies supplying varied experiences and information dealing with career opportunities without involving sex-appropriateness. Nontraditional role models would be helpful in achieving this objective.

Parents share the responsibility for supplying girls and boys with information about vocational choice with the school. This study seems to indicate that parents indeed share very little career information with their children. In fact, almost half of the students in this study did not know what their parents did for a living (Lawrence and Mamola, 1979). Very few students indicated an interest in pursuing their mothers' or fathers' careers. The lack of interest in the mothers' careers may be a result of the low status and pay offered by the positions typically held by women. Nevertheless, this finding implies that parents should provide their children with more information concerning their own careers and should explore career alternatives objectively. Objectivity is important since parents tend to urge students to be interested in jobs they as parents regard as prestigious and desirable, sometimes ignoring children's interests and abilities. They also tend to encourage boys and girls to pursue sex-appropriate careers instead of advising their children on the basis of aptitudes and interests, thus perpetuating the stereotyped pattern of career choice found in this study.

In addition to affecting job statements, the school the student attended seemed to affect self statements. This finding would seem to support the idea that some communities foster awareness of job

responsibilities while others encourage concern for the self. Further research is needed to establish a relationship between the community's role and students' perceptions of their future. The relatively high percentage of job statements made by students attending schools where occupational awareness classes were offered tends to lend support to the assertion that such classes do increase students' realistic perception of career roles. The focus on the self indicated by a fairly high percentage of self statements seems to imply that some communities should provide transescents with more opportunities to talk about their own personal ideas and to listen to those of others. Through interaction with others these students will gradually begin the move toward realizing the difference between their own concerns and those of others.

Boys did make significantly more job statements than girls. This finding seems to indicate that boys are responding to society's expectations that they will be able to support a family as adults. While both boys and girls did make future job responsibilities a focus of their perception of future day essays, the inference is that girls still view home and family responsibilities as important since they made significantly more home and family statements than did boys. This significant difference indicates that girls are still not aware of the fact that they will probably have to work in order to either support themselves, help their husbands support their families, or support their families alone. Again, families and schools must work to change this misconception since statistics indicate that 90 percent of all women are employed on a full-time basis during some period of their lives (Smith, 1978). It is encouraging to note that the girls in this

study did not focus on detailed lists of domestic routine to the exclusion of job details as was true in Iglitzen's (1971) study. Hopefully this pattern is indicative of a trend in which girls are beginning to realistically perceive themselves as pursuing a professional career instead of envisioning themselves as housewives because they are unable to perceive themselves in professional roles.

This study supports the assertion that girls and boys do perceive their futures in different ways. It is encouraging to note the emphasis that both groups placed on job responsibilities. This would seem to indicate that students are becoming more aware of the importance of preparing for a career regardless of sex. However, the fact that boys made significantly more job statements while girls made significantly more home and family statements indicates that there is still need for more realistic perceptions of the future, particularly in a world where the tendency is for both marriage partners to work and, hopefully, to share home and family responsibilities. This research has indicated that such factors as sex, school attended, and the interaction of maternal employment status and sex may affect perception of future day. Further research in these areas would be beneficial in establishing programs and methods which would encourage a more realistic perception of future day.

REFERENCES

- Ashton, E. "The Effect of Sex-Role Stereotyped Picture Books on the Play Behavior of Three- and Four-Year-Old Children." Dissertation Abstracts International, 39:1310-A. September, 1978.
- Bacon, C., and R. Lerner. "Effects of Maternal Employment Status on the Development of Vocational-Role Perception in Females." Journal of Genetic Psychology, 126:187-194. February, 1975.
- Baldigo, J. "An Exploration of Elementary School Children's Conceptions of Family Roles." Dissertation Abstracts International, 36:7672-A. May, 1976.
- Bar-Tal, D. "Attributional Analysis of Achievement-Related Behavior." Review of Educational Research, 48:259-271. Spring, 1978.
- Bem, S. "Androgeny vs. the Tight Little Lives of Fluffy Women and Chesty Men." Psychology Today, 9:60-63. September, 1975.
- Britton, C. "Sex Stereotyping and Career Roles." Journal of Reading, 17:140-148. November, 1973.
- Butler, R. Some Qualitative Aspects of Youth's Occupational Status Projections: A Sex Comparison. U.S., Educational Resources Information Center, ERIC Document ED 101 883, 1975.
- Carey, G. "Sex Differences in Problem Solving Performance as a Function of Attitude Difference." Journal of Abnormal and Social Psychology, 56:256-260. April, 1958.
- Chaney, R. "Vocational Values of Children As They Relate to Economic Community, Grade Level, and Parental Occupation Level." Dissertation Abstracts International, 29:2956-2957. March, 1969.
- Corine, C. "Elementary School Students' Perceptions of Rewards for Working." Dissertation Abstracts International, 39:1319-A. September, 1978.
- Crow, M., and M. Taebel. "Sex-Role Stereotyping Is Alive and Well Among Sixth Graders." Elementary School Journal, 76:359-364. June, 1976.
- Doss, C. "Parental Influence on Career Ambitions of Fourth Grade Pupils." Education, 96:165-167. February, 1975.

- "The Dualist Theory of Human Resources." Sex Role Stereotyping In the Schools. Washington, D.C: National Education Association, 1977.
- Dweck, C., and N.Reppucci. "Learned Helplessness and Reinforcement Responsibility in Children." Journal of Personality and Social Psychology, 25:109-116. January, 1973.
- Elkind, D. A Sympathetic Understanding of the Child: Birth to Sixteen. Boston: Allyn and Bacon, Inc., 1974.
- Etaugh, C. "Effects of Maternal Employment on Children: A Review of Recent Research." Merrill Palmer Quarterly, 20:71-88. April, 1974.
- Fasteau, M. "The Male Machine: The High Price of Macho." Psychology Today, 9:58-59. September, 1975.
- Frazier, N., and M. Sadker. Sexism in School and Society. New York: Harper & Row, 1973.
- Golden, G., and L. Hunter. In All Fairness. San Francisco: Far West Laboratory for Educational Research and Development, 1974.
- Goleman, D. "Special Abilities of the Sexes: Do They Begin In the Brain?" Psychology Today, 12:48-59, 120. November, 1978.
- Gordon, I. Human Development from Birth to Adolescence. New York: Harper & Row, 1969.
- Greenbert, S. "Attitudes of Elementary and Secondary Students Toward Increased Social, Economic, and Political Participation by Women." The Journal of Educational Research, 67:147-153. December, 1973.
- Harris, S. "Sex Typing in Girls' Career Choices: A Challenge to Counselors." Vocational Guidance Quarterly, 23:128-133. February, 1974.
- Hewitt, L. "Age and Sex Differences in the Vocational Aspirations of Elementary School Children." The Journal of Social Psychology, 96:173-177. February, 1975.
- Hilton, T., and G. Berglund. "Sex Differences in Mathematical Achievements - A Longitudinal Study." Journal of Educational Research, 67:231-237. January, 1974.
- Holden, C. "Science Show For Children Being Developed for TV." Science, 202:703-704. November, 1978.
- Horner, M. "Fail - Bright Woman." Psychology Today, 62:36-38, 62. December, 1969.

- Hoover, N. Stereotyping in the Learning Environment: Teacher Perceptions and Strategies for Change. U.S., Educational Resources Information Center, ERIC Document ED 153 175, 1977.
- Hurlock, E. Developmental Psychology. New York: McGraw-Hill, 1975
- Hurlock, E. Child Development. New York: McGraw-Hill, 1978.
- Iglitzen, L. "'His' and 'Hers': Sex Stereotyping in Children's Attitudes." Seattle: University of Washington, 1971. (Mimeographed)
- Iglitzen, L. "A Child's-Eye View of Sex Roles." Sex Role Stereotyping in the Schools. Washington, D.C.: National Education Association, 1977.
- Kalunian, P., G. Lopatich, and S. Cymerman. "Changing Sex Role Stereotypes Through Career Development." Psychology in the Schools, 12:230-233, April, 1975.
- Krebs, D. "Altruism - An Examination of the Concept and Review of Literature." Psychological Bulletin, 73:258-302. April, 1970.
- Lawrence, L. "Free To Be...Treated As An Equal." Dimensions, 6:106-110. June, 1978.
- Lawrence, J., and C. Mamola. "Middle School Students and the World of Work." A paper presented to the Women and Work Conference, Indiana University, Bloomington, Indiana, March, 1979.
- Lee, P., and N. Gropper. "A Cultural Analysis of Sex Role in the School." In Glen Hass (Ed.), Curriculum Planning. Boston: Allyn and Bacon, 1977.
- Lerner, R., P. Benson, and S. Vincent. "Development of Societal and Personal Vocational Role Perception in Males and Females." Journal of Genetic Psychology, 129:167-168. January, 1976. (a)
- Lerner, R., P. Benson, and S. Vincent. "One-Year Stability of Social and Personal Vocational Role Perceptions of Females." Journal of Genetic Psychology, 129:173-174. September, 1976. (b)
- Looft, W. "Sex Differences in the Expression of Career Aspirations by Elementary School Children." Developmental Psychology, 5:366. February, 1971. (a)
- Looft, W. "Vocational Aspirations of Second-Grade Girls." Psychological Reports, 28:241-242. February, 1971. (b)
- Matthews, D., and F. O'Tuel. Effects of a Career Development Program on Middle School Children. U.S., Educational Resources Information Center, ERIC Document ED 152 974, 1978.

- McEwin, K., and J. Lawrence. "The Middle School: An Emerging Concept." In Joyce Lawrence and Claire Mamola (Eds.), Public Education in the United States: A Modularized Course. Boone, N. C.: Center for Instructional Development, 1978.
- Morfield, S. Non-Sexist Learning and Teaching With Children. U. S., Educational Resources Information Center, ERIC Document ED 154 932, 1978.
- Murphy, M. "Getting a Jump on Career Choices." In Glen Hass (Ed.), Curriculum Planning. Boston: Allyn and Bacon, 1977.
- Nicholls, J. "Causal Attributions and Other Achievement-Related Cognitions: Effects of Task Outcome, Attainment Value, and Sex." Journal of Personality and Social Psychology, 31:379-389, March, 1975.
- Parks, B. "Career Development - How Early?" Elementary School Journal, 76:468-474. August, 1976.
- Parlee, M. "The Sexes Under Scrutiny: From Old Biases to New Theories." Psychology Today, 12:62-69. November, 1978.
- Romano, L. "Is Your Middle School a Middle School?" Journal of North Carolina Middle/Junior High Schools, March, 1979, pp. 11, 26.
- Scheresky, R. "Occupational Roles are Sex-Typed by Six- to Ten-Year-Old Children." Psychology in the Schools, 14:220-224, February, 1977.
- Schlossberg, M., and J. Goodman. "A Woman's Place: Children's Sex Stereotyping of Occupations." Vocational Guidance Quarterly, 20: 166-170. June, 1972.
- Siegel, C. "Sex Differences in the Occupational Choices of Second Graders." Journal of Vocational Behavior, 3:15-19. January, 1973.
- Smith, A. New Pioneers. Raleigh, N. C.: Division of Equal Education - North Carolina Department of Public Instruction, 1978.
- Stewig, J., and M. Higgs. "Girls Grow Up To Be Mommies." Library School Journal, 98:44-49. January, 1973.
- "Study Finds Girls Are Diverted From Careers in Math and Science." Educational Testing Services Developments, Fall, 1978, pp. 4-5.
- U. S. Bureau of the Census, Statistical Abstract of the United States: 1978. (99th edition) Washington, D.C., 1978.
- U. S. Department of Labor. Dictionary of Occupational Titles, [by Ray Marshall and Ernest Green]. [Washington]:n.n., 1977.
- Verheyden-Hilliard, M., and others. Cracking the Glass Slipper: PEER's Guide to Ending Sex Bias in Your Schools. U. S., Educational Resources Information Center, ERIC Document ED 154 539, 1975.

- Vigod, A. "The Relationship Between Occupational Choice and Parental Occupation." The Alberta Journal of Educational Research, 18: 287-294. December, 1972.
- Vincenzi, H. "Minimizing Occupational Stereotypes." Vocational Guidance Quarterly, 24:265-268. March, 1977.
- Weitzman, L., and D. Rizzo. "Sex Bias in Textbooks." Today's Education, 64:49-52. January-February, 1975.
- Williams, C. "Career Aspirations of Elementary School Children." Dissertation Abstracts International, 38:5884-A. April, 1978.
- Witelson, S. "Sex and the Single Hemisphere: Specialization of the Right Hemisphere for Spatial Processing." Science, 193(4251): 425. July, 1976.
- Witty, P. "A Study of Pupils' Interests, Grades 9, 10, 11, 12." Education, 82:169-174. November, 1961
- Women and Minority Ph.D.'s In the 1970's: A Data Book. Commission on Human Resources, National Research Council, National Academy of Sciences, 1977.
- Zaret, E. "Women/Schooling/Society." In James MacDonald and Esther Zaret (Eds.), Schools in Search of Meaning. Washington, D.C.: Association for Supervision and Curriculum Development, 1975.
- Zimet, S. "Sex Differences in Reading: The Relationship of Reader Content to Reading Achievement." Paper presented at the Annual Meeting of the American Educational Research Association, Washington, D. C., April, 1975.

NAME _____

AGE _____ BOY _____ GIRL _____

SCHOOL _____

TEACHER _____

Here are some questions to answer about yourself.

1. Does your mother work at a job away from home? _____
2. At what job does your mother work? _____
3. Does your father work at a job away from home? _____
4. At what job does your father work? _____
5. Who lives at home with you?

both parents _____	brother(s) _____
mother only _____	sister(s) _____
father only _____	other people _____
grandparent(s) _____	
6. What job do you want to have when you grow up and finish your education?

7. Who do you know, if anyone, who has a job like the one you would like?

8. How much education would you need to have the job you want?
(check one)

8th grade _____	community college _____
high school _____	bachelor's degree _____
technical school _____	master's degree _____
don't know _____	doctorate _____

APPENDIX A

Below are some questions to answer about some of the jobs that need to be done at your house. Put a check (✓) in the column under the person who does the work.

	ME	MOTHER	DAD	OTHER PERSONS
1. Who mows the lawn at your house?				
2. Who fixes your bike at your house?				
3. Who plants the flowers at your house?				
4. Who unclogs the sink at your house?				
5. Who cooks supper at your house?				
6. Who makes sure you go to bed at a reasonable hour at your house?				
7. Who pays the bills at your house?				
8. Who builds shelves at your house?				
9. Who helps you with your homework at home?				
10. Who gets up with you at night when you are sick?				
11. Who gives you money at your house?				
12. Who cleans your house?				

APPENDIX B

Imagine that you are an adult. Describe what you will be doing throughout one day.

I get out of bed, put my clothes on, and go eat breakfast.

I go to work and I pack cigarettes. (I pack usually thousands of cigarettes every day.) At eleven o'clock a. m. I have lunch.

I go back to work and get out at four o'clock p.m. I go back home and I eat supper. I watch the news and I just piddle around till nighttime. I go in and take my bath and go to bed at nine o'clock.

Home and Family	Job	Self
00	04	09
00	31	69

(Boy)

Imagine that you are an adult. Describe what you will be doing throughout one day.

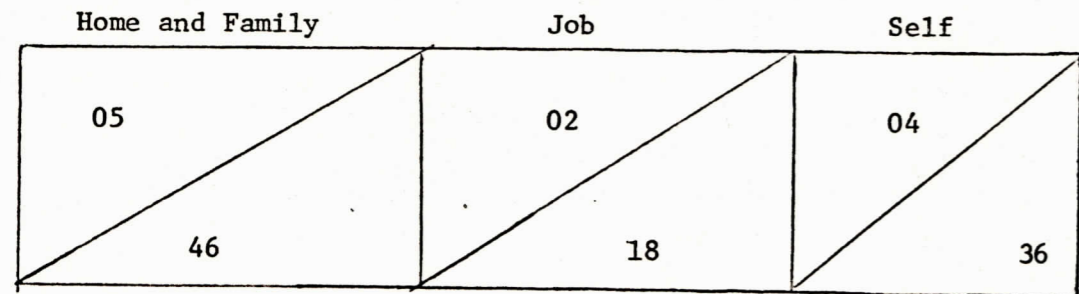
Get up, go out and get the paper, come back, sit down, and read it, eat breakfast, get ready for work, go to work, come home, eat supper, read the afternoon paper, go to sleep.

Home and Family	Job	Self
00	01	11
00	08	92

(Boy)

Imagine that you are an adult. Describe what you will be doing throughout one day.

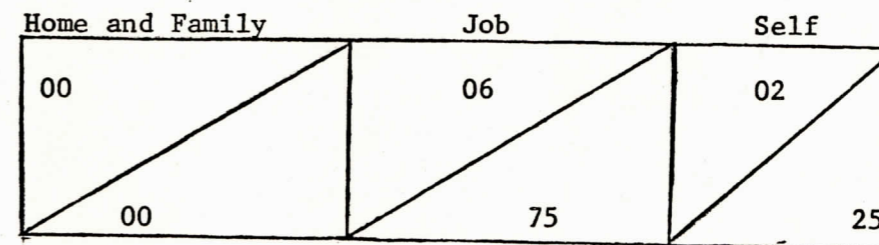
Get up and get my children ready for school. Then get ready to go to work. I go to the hospital and work in the children's unit, until three. Go pick up my children from school. Go home and rest. Then cook supper for my family. Help children with homework and get them ready for bed. Then me and my husband would talk and watch T.V. and go to bed.



(Girl)

Imagine that you are an adult. Describe what you will be doing throughout one day.

Get up. Go to the vet's office. Get things ready. Open the office. Take care of dogs with little injuries like cuts. Take care of dogs who need operations. Close the office. Go home and go to bed.



(Girl)



Appalachian State University
Boone, North Carolina 28608

704/262-2224

APPENDIX C

September 29, 1978

Dear Principal:

We are interested in conducting a study within your school concerning aspects of career awareness and students' perceptions of each other. In the study, we would ask sixth and seventh grade students to complete a questionnaire. Completion of the questionnaire will require less than one hour and will contain items designed to determine students' knowledge of a variety of career choices open for them. Several items will deal with the students' awareness of the time and educational demands of their prospective career choices.

Results of the study will not identify schools or classes by name. Only the total results in terms of the 250-child sample will be reported. Each teacher and principal who participates will receive summary data and a discussion of the findings.

If possible, we would like to come into your school on Thursday or Friday, October 19th or 20th, 1978. The exact time will be coordinated with the teacher whose class we are visiting. We would supervise the class in completion of the questionnaire.

We would be grateful for your cooperation. If you have any questions, please do not hesitate to let us know.

Sincerely,

Handwritten signature of Joyce Lawrence in cursive script.

Joyce Lawrence, Ed. D.
Professor, Elementary Education

Handwritten signature of Claire Mamola in cursive script.

Claire Mamola, Ed. D.
Assistant Professor, Secondary Education

Handwritten signature of Susan Holcomb in cursive script.

Susan Holcomb
Graduate Student, Elementary Education



Appalachian State University
Boone, North Carolina 28608

October 2, 1978

Dear Teacher:

We are conducting a study during October of 1978 and would appreciate the participation of your class very much. We would like the children to complete a questionnaire dealing with their awareness of career and work options. Completion will require no longer than one hour.

We are investigating several aspects of career awareness dealing with the students' knowledge of the variety of careers that are viable possibilities for their future. Their awareness of the time and educational demands of these careers will also be investigated. Information received will not be identified by individual classes. We expect approximately 250 sixth and seventh graders to be included in the sample population. Each teacher and principal participating in the study will receive the summary data and a discussion of the findings.

If possible, we would like to visit your class on Thursday, October 19, or Friday, October 20. The time will be coordinated with your schedule. We will supervise the class in the completion of the questionnaire and you will be able to use the hour in whatever way you choose. There would be two or three adults present in the room during the entire hour.

If you could find time for us to work with your children for an hour we would be most appreciative. Please complete the enclosed form giving your permission and let us hear from you as soon as possible.

Sincerely,

Joyce Lawrence
Joyce Lawrence, Ed. D.

Professor, Elementary Education

Claire Mamola
Claire Mamola, Ed. D.

Asst. Professor, Secondary Education

Susan Holcomb
Susan Holcomb

Graduate Student, Elementary Education

APPENDIX D

FATHERS' OCCUPATIONS

- | | |
|--------------------------------|-------------------------|
| 1. appliance repairman | 45. farmer |
| 2. automobile repairman | 46. installs guttering |
| 3. bulldozer operator/crane | 47. in the military |
| 4. candidate | 48. fireman |
| 5. carpenter | 49. works on tanks |
| 6. cook | 50. installs carpet |
| 7. construction worker | 51. lawyer |
| 8. dry wall finisher | 52. blueprint worker |
| 9. electrician | 53. brick mason |
| 10. engineer | 54. janitor |
| 11. exterminator | 55. painter |
| 12. foreman | 56. policeman |
| 13. gasoline station attendant | 57. telephone |
| 14. geltman | 58. librarian |
| 15. inspector | 59. computer technician |
| 16. insulator | 60. judge |
| 17. insurance agent | 61. real estate |
| 18. junk man | 62. artist |
| 19. landscaper | |
| 20. livestock market worker | |
| 21. loader of freight | |
| 22. logger | |
| 23. mechanic/machinist | |
| 24. mill worker | |
| 25. plumber | |
| 26. postal worker | |
| 27. printing | |
| 28. professor | |
| 29. road worker | |
| 30. sheriff | |
| 31. store owner | |
| 32. supervisor | |
| 33. teacher | |
| 34. testing department | |
| 35. (ticket) salesperson | |
| 36. truck driver | |
| 37. weaver | |
| 38. welder | |
| 39. unemployed | |
| 40. no response | |
| 41. sawmill worker | |
| 42. factory worker | |
| 43. named a place | |
| 44. dairy worker | |

MOTHERS' OCCUPATIONS

1. aide
2. beautician
3. bus driver
4. cook
5. crafts maker
6. day care
7. furniture worker
8. home maker
9. housekeeper
10. inspector
11. maid
12. manager
13. mill worker
14. receptionist/secretary
15. salesperson
16. sewing/weaving/knitting
17. store owner
18. teacher
19. waitress
20. no response
21. factory worker
22. dairy worker
23. named a place
24. telephone operator
25. newspaper
26. florist
27. lab worker
28. student
29. nurse
30. laundry
31. auditor
32. typesetter
33. librarian
34. life guard
35. real estate
36. bank teller