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ABSTRACT

To aid girls in considering future alternatives and making plans for labor force participation and adult female roles, curriculum materials and associated measures of knowledge, attitudes, and plans were developed and pilot tested with 100 girls in Grades 7, 9, and 11. Materials and measures were revised on the basis of pilot test data, including evaluative comments from participating teachers and students and were then submitted to experimental evaluation with 32 Grade 7, 9 and 11 students enrolled in home economics classes. Major conclusions concerning the effects of the unit were: (1) Students gained information about the world of work and about women's roles in employment, (2) Students' attitudes changed in the direction of more acceptance of the challenges of employment and more acceptance of employment after marriage, (3) Students showed no significant change in choices of occupation, and (4) Students indicated more plans to work after children begin school and after children are grown. Recommendations for uses of the unit are included, and the study questionnaire, instructions, and data tables are appended. (Author/SB)

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WOMEN IN THE WORK FORCE:

development and
field testing of
curriculum
materials



planning ahead for the world of work

Louise Vetter • Barbara J. Sethney

The Center for Vocational and Technical Education
The Ohio State University



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RESEARCH AND DEVELOPMENT
SERIES NO. 81

**WOMEN IN THE WORK FORCE:
DEVELOPMENT AND FIELD TESTING OF
CURRICULUM MATERIALS**

Planning Ahead for the World of Work

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FOREWORD

Exploring career alternatives, making career choices and developing essential competencies is a difficult, complex, lifelong process with which many people have only limited success. Many young people experience extended periods of vocational "floundering" as they attempt to work out their career decisions and find satisfying ways to cope with the work world. Yet, many people could avoid or reduce such difficulties by timely development of identifiable knowledge, skills, attitudes, and plans. The Center has undertaken, therefore, to develop a system of methods, procedures, and tools for school personnel to use in developing programs which will assist young people effectively to acquire and apply the capabilities they need to evolve satisfying careers.

This report on one project in the larger programmatic effort describes the development and testing of a curriculum unit, "Planning Ahead for the World of Work," designed to aid secondary school girls in making career plans which are consistent with their interests and capabilities and with the realities of the world of work. The unit and the findings of this study should be of interest to teachers and counselors of girls as well as to researchers and to educational planners developing curricula and guidance experiences for these students.

We should like to acknowledge the cooperation and assistance of the students, faculty, and staff from the five school systems that participated in the field testing of the unit; and Dr. Ruth Hughes, Head, Home Economics Teacher Education, Iowa State University, and Dr. Loraine Hansen, College of Education, University of Minnesota, for their review of the manuscript. Special recognition is due Louise Vetter and Barbara J. Sethney who conducted the project.

Robert E. Taylor
Director
The Center for Vocational
and Technical Education

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SUMMARY

Educational and occupational opportunities for girls and women have expanded as attitudes toward women workers have become more liberal and as supporting legislation has been provided. However, research has indicated that many secondary school age girls are ill-prepared to deal with their expanded opportunities, have unrealistic educational and vocational plans, and demonstrate incomplete knowledge of important facts about the world of work. The purpose of this project was to develop a package of curriculum materials designed to aid girls in considering future alternatives and making plans for labor force participation and adult female roles.

Curriculum materials and associated measures of knowledge, attitudes, and plans were developed and pilot tested with 100 girls in the seventh, ninth, and eleventh grades. Materials and measures were revised on the basis of pilot test data, including evaluative comments from participating teachers and students. The revised curriculum then was submitted to experimental evaluation with 326 seventh, ninth, and eleventh grade girls enrolled in home economics. The major conclusions reached concerning the effects of the unit were:

- 1) students gained information about the world of work and about women's roles in employment;
- 2) students' attitudes changed in the direction of more acceptance of the challenges of employment and more acceptance of employment after marriage;
- 3) students showed no significant change in choices of occupation;
- 4) no significant change was recorded in planning for some labor force participation; most probably because of the high level of such plans on the pretest; and
- 5) students indicated more plans to work after children begin school and after children are grown.

Student response to the unit indicated:

- 1) a majority felt that the unit will influence their futures;
- 2) students indicated that the information presented was what they liked most about the unit; and

- 3) students perceived parental reaction to the unit as favorable.

Teacher response to the unit was favorable.

Recommendations for uses of the unit are as follows.

- 1) Optimal use would seem to be at the ninth grade, though the unit appears usable at all three of the grade levels tested. Occupational information should be emphasized if the unit is used in grade seven; women's roles in employment should be emphasized in grade eleven.
- 2) It is recommended that teachers promote awareness of the world of work and awareness of self in the world of work after students complete the unit. Such awareness could be promoted by bulletin board displays, newspaper clipping collections, and outside resource persons.
- 3) Teachers need training in order to present the occupational information and to interpret the statistics effectively.
- 4) School counselors should be involved as resource persons providing materials, keeping the materials current, and teaching the unit, if this is feasible in the local school.
- 5) An attempt should be made to involve parents so that, while their standards about women's roles are respected, they have access to information about the way things are today.
- 6) With slight revisions, the materials would be appropriate to use with classes of boys and girls.

A one year follow-up study is being planned. The girls who participated in the experimental and control groups will be re-tested and the results of this follow-up will be made available as soon as it is completed.

**WOMEN IN THE WORK FORCE:
DEVELOPMENT AND FIELD TESTING OF
CURRICULUM MATERIALS**

Planning Ahead for the World of Work

INTRODUCTION

The Problem

Recognition of the importance of vocational planning for young women is a relatively new idea. In the past, educators and counselors frequently attempted to set girls on the "right road" toward wifehood and motherhood, or else simply ignored them. However, in the last thirty years a great many changes have taken place. Now, more than one-third of the work force consists of women workers and the average "work life expectancy" for each working woman is twenty-five years (Women's Bureau, 1969). With over thirty million women in the work force in 1970 (U.S. Department of Labor, 1971), some change in the "kinder, kirche, küche" (children, church, kitchen) approach to vocational planning for girls and women is indicated.

Educational and occupational opportunities for girls and women have expanded as attitudes toward women workers have become more liberalized and as facilitating legislation has been provided. These opportunities and changes have produced some problems, however. According to Anderson and Heimann (1967):

One outcome of the growing manpower needs of the nation and the expanding role of women in the labor market has been to produce a complex of problems for the young female who is entering early states of vocational planning. In addition to her need for occupational information, decision-making experiences, and a setting in which to examine her feelings and needs, the adolescent girl is also faced with such problems as her emerging life plans of marriage and/or career, cultural biases against women in some occupations regarded as not feminine, and an understanding of herself in relation to these forces.

Research indicates that early presentation of occupational information may facilitate such developmental factors as understanding of occupational concepts, identification of vocational interests, and realism of self-concept, appropriateness of vocational choice, and readiness to function as an effective employee (Sinick, Gorman, and Hoppock, 1966). However, much occupational information has been collected without reference to the importance of labor force participation for female subjects and, as Kaufman, Schaefer, Lewis, Stevens, and House (1967) have pointed out, many of the expressed attitudes and plans of high school senior

girls are based on a very restricted view of the possibilities open to them as adult women. Although nine out of ten females will be gainfully employed at some time in their lives (Women's Bureau, 1969), high school senior girls have relatively little information about women in the labor force (Lee, Ray, Vetter, Murphy, and Sethney, 1971). This, in turn, affects the attitudes they hold and the plans they make. Clearly, there is need for effective methods by which young women can acquire the information, the attitudes, and the planning capabilities necessary to develop and carry out realistic career plans.

Objectives of the Study

The findings of previous studies, and especially Lee, et al. (1971), included much specific information about the knowledge, attitudes, and planning capabilities of young women with respect to the world of work, so that it appeared probable that an effective, relatively short, instructional unit could be developed to meet much of their need. Consequently, this study was designed to produce and evaluate an eight-ten hour instructional unit on women in the work force, including all necessary supporting materials.

The goal of the unit, "Planning Ahead for the World of Work," was to bring about changes in secondary school girls' knowledge of, attitudes toward, and plans for the world of work. It was intended that the curriculum unit would help female students to make career plans consistent with their interests and capabilities, to choose appropriate educational routes to these career goals, and to develop attitudes consistent with the realities of the working world. It was also intended that the unit, and the data of this report, be particularly useful to school systems which are planning and implementing improved vocational programs, and to school counselors and teachers on the secondary level.

The objectives of the unit, stated in terms of changes sought in students' behavior, were as follows:

- 1) students will have more knowledge about women in the work force as exhibited by more correct answers to objective information items on a posttest than on a pretest;
- 2) students will show, by responses to attitude items, more acceptance of the working role in their lives;
- 3) students will list different alternatives for choices of their occupations;
- 4) more students will indicate plans for the future which show work force participation at some time in their lives; and

- 5) more students will indicate that they have considered work life expectancy projections for the total life span.

METHODS AND PROCEDURES

Included in this section are descriptions of initial materials development, the evaluation instruments, a test and revision of the materials, and a description of the field test itself.

Materials Development

Previous assessment of the occupational knowledge, attitudes and plans of high school senior girls (Lee, et al., 1971) documented the lack of information these girls had about their probable employment futures. The attitudes and plans of the girls reflected this lack of information.

A preliminary set of materials was prepared and organized into a curriculum unit, "Planning Ahead for the World of Work," designed to repair the knowledge, attitude, and planning deficiencies revealed by the girls in the earlier study. The unit was planned to require active participation of the students in a variety of learning activities and to teach techniques which should be useful to the students in later life, such as those for taking self-inventory and for using important sources of information.

The unit consisted of student materials, an accompanying teacher's manual, a set of reference materials, and transparencies coordinated with the student materials. Sections of the student materials were selected for the following reasons.

- 1) "Looking Ahead to Your Occupation" provided each student with a chance for self-analysis, with information about the roles of women in the labor force (information not known by senior girls in the previous study), and with opportunity for discussion of the information.
- 2) "After School, What?" was a sociodrama which presented five options for activities following high school, including college, technical school, working following vocational training in high school, working following general high school curriculum, and marriage. Discussion questions were aimed toward self-exploration for each participant.
- 3) "Working Women - Who Are They?" included further information about options for adult roles for women, particu-

larly as they relate to the work force, and case studies which dramatized the fact that occupational decisions are made at all ages, not just once.

- 4) "Modern Women: The Uneasy Life" was an NET film which visually presented a number of options for the question, "What should I be when I grow up?" thus using another medium to present material for discussion.
- 5) "What's In My Future?" provided for a review of individual participants' personal status.

The teacher's manual provided correct answers for factual questions, possible responses for the discussion questions, a listing of additional activities, and information about use of the transparencies.

Evaluation Instrument

The major evaluation instrument for this study was an extension and revision of the instrument used in the earlier study of high school seniors (Lee, et al., 1971). Three major sections were included: knowledge of work, attitudes toward work, and future plans. Appendix A presents the complete set of items used to collect the data for the present study.

Knowledge of Work

The earlier study of high school senior girls indicated that many of the girls were fairly well informed about job requirements, but relatively uninformed about women's labor force participation and the extent of women's roles in the labor force. Using this information, items relating to the labor force participation of women were selected from the earlier instrument and additional items were written in these areas. Care was exercised so that information which would give the students the answer to the question was included in the student materials, thereby giving the student the opportunity to acquire the information through participation in the curriculum unit.

A total of forty multiple-choice items were included in the knowledge of work instrument (Appendix A, Part 2). Twenty-five of the items offered four choices, fifteen offered two choices. All items were written so that only one choice was considered to be the correct response. Items were scored pass (1) or fail (0) giving a possible range of scores from zero to forty.

Attitudes Toward Work

The forty attitude items providing five scales (Appendix A, Part 1) were developed in a previous study (Vetter, 1969). Each item consisted of a statement for which the subject indicated the extent of her agreement on a five-point scale (strongly disagree, disagree, indifferent or don't know, agree, strongly agree).

Scale I, "Economic Mobility," (items 1, 6, 11, 16, 21, 26, 31, 36) pertained to circumstances under which girls felt they would work after marriage and included items related to basic necessities (for example, "I would work after marriage to have money to buy basic things") and items related to upward mobility (for example, "I would work after marriage to have the money to live in a better community").

Scale II, "Role Security," (items 2, 7, 12, 17, 22, 27, 32, 37) related to "woman's place" and her relationships to her family, men, and work. A sample item was "woman's place is in the home."

The items included in Scale III, "Intrinsic Reward," (items 3, 8, 13, 18, 23, 28, 33, 38) pertained to working with others, helping others, and being useful to society; for example, "working with others would be an important part of a job for me."

In Scale IV, "Challenge," (items 4, 9, 14, 19, 24, 29, 34, 39) items related to opportunities, running one's own life, and making one's decisions; for example, "a chance to work with ideas is the ideal kind of job."

The items in Scale V, "Extrinsic Reward," (items 5, 10, 15, 20, 25, 30, 35, 40) related to salary, promotion, and benefits; for example, "a job should have good opportunities for promotion."

Each response was scored from one (strongly disagree) to five (strongly agree). Scores for each subject were summed over the appropriate eight items to get each scale score. Thus, a subject's score on any of the five scales could range from eight (strongly disagree with all items) to forty (strongly agree with all items).

High scores on the "Economic Mobility" scale would indicate a contemporary approach to employment with strong agreement on working after marriage. High scores on the "Role Security" scale would indicate the traditional position by strong agreement with "woman's place is in the home" statements. High scores on the "Intrinsic Reward" scale would show strong agreement with statements about helping people. Strong agreement with the statements in the "Challenge" scale would indicate a positive response to statements about independence and creativity. High scores on the "Extrinsic Reward" scale would indicate strong agreement with statements about the positive aspects of salary, promotion, and benefits.

Future Plans

The items relating to future plans in the earlier study (Lee, et al., 1971) were written to be specifically appropriate for girls who were seniors in high school. As the girls in the present study were not seniors, it was necessary to rewrite the future plans items to be appropriate for their grade levels. Twenty-one items were included and covered the areas of education, employment, and marriage and family plans. Fourteen of the items were of the yes-no response variety. The other seven items appeared in the pilot study as open-ended items. The responses to the seven items in the pilot study were used to write a limited number of options based on those responses most frequently given by the pilot group. Appendix A, Part Three presents the items used in this study.

Additional Informal Evaluation

In addition to the formal evaluation instruments described above, teachers and students who participated in the pilot test and the field test provided written evaluations of their responses to the unit. The teachers kept a daily record of student reactions, responses and participation, areas of greatest interest and understanding, difficult or problem areas, and any suggestions for changes in the materials.

Students indicated what they liked and disliked about the unit. They were asked to comment on whether or not they were able to understand the materials. They also were encouraged to write any other reactions they had to the unit.

Pilot Study

Two school systems were chosen for the pilot study, both located in Ohio. The materials and evaluation instruments were tested at the seventh, ninth, and eleventh grade levels. Three teachers participated in the pilot testing. Pre- and posttest data were collected from the participating students as well as comments written in reaction to the unit by the students and the three teachers. Complete data were available for sixty-two seventh grade girls, twenty-two ninth graders, and sixteen eleventh graders.

Posttest scores were significantly higher than pretest scores for students at all three grade levels on the knowledge of work objective items.

Pre-posttest changes in responses to the attitude items were less consistent than for objective items. Seventh graders significantly changed their responses on all five attitude scales. Scores

on "Economic Mobility," "Intrinsic Reward," "Challenge," and "Extrinsic Reward" were higher; scores on "Role Security" were lower. The smaller groups of ninth and eleventh graders did not change their responses on the average. Only one scale in one group showed a significant change, possibly a chance occurrence. From observation, it seemed that the seventh grade changes might be attributed to the size of the group and the teacher involved.

Written student response to the unit was positive. A majority of the girls stated that they enjoyed class discussions and learned a lot from them, that the charts, tables and transparencies were not too difficult to understand, and that the unit caused them to take a careful look at themselves and what they wanted to do with their lives.

Specific comments at the seventh grade level included: "After I read this workbook, I could narrow down the jobs I liked"; "Now I see the faults in me that I can't have with certain jobs"; and "I learned there is more to having a job than I ever dreamed of."

Ninth graders' comments included: "I wasn't going to work at all, but I am now"; "I was going to drop out of school, but I know now how much I need education"; "I thought I'd just be an ordinary housewife and not go on to college, but I've changed my mind. I still want to be a housewife though"; "I haven't changed my plans, but this unit has made me think about it a little more than I had before."

Some of the comments at the eleventh grade level included: "There are a lot more things I'd like to do"; "I've realized there is more to getting a job than just going out and applying for one"; "I still want to be a teacher and go on to college, I want to get a higher education and be independent." One rather discouraging comment recorded at the eleventh grade was as follows: "I always thought I would do what I wanted to do and nothing can change my mind. Besides, I am still undecided as to what I want to do."

Revisions of Materials and Evaluation Instrument

Revisions in the student materials were made at points where the participating teachers indicated that students were having difficulty in understanding concepts or vocabulary. Corresponding changes were incorporated into the transparencies and the teacher's manual.

Analysis of the knowledge of work objective items identified some items with negative discrimination. For such items, the stem and/or responses were rewritten for clarification. No change was made in the attitude items.

Responses to the open-ended questions dealing with future plans and background information were used to write a limited number of options based on those responses most frequently given by the pilot group. It was quite evident from the responses recorded in the pilot test that clarification of some items was needed in order to obtain relevant answers. For example, in response to the question, "What are your plans for further education?", answers often gave work or marriage plans rather than plans for education. By rewriting the stem and adding a list of alternatives, this type of response was ruled out for the field study.

Field Test

Sample

The sample was selected from secondary schools in Ohio and Tennessee. In the previous research (Lee, et al., 1971), community size was not a particularly significant variable with only two of nineteen variables tested being significant. However, since knowledge of work (a variable in the present study) was significantly related to community size, students from both metropolitan and non-metropolitan locations were included. Also, it was felt necessary that the total range of ability levels be included in the sample from each location. The field test was planned within these limits and a number of other constraining factors (e.g., the willingness of school administrators to allow participation of their schools, the willingness of teachers to participate, and the kinds of student groups available: regular class, specially formed group, home economics, health, or guidance).

Three communities were selected to participate in the field testing, one metropolitan and two nonmetropolitan. The metropolitan communities had a population of 260,000. One of the nonmetropolitan communities had a population of nineteen thousand, the other was a rural community with no towns included.

In the metropolitan community, the city supervisor of home economics aided in the selection of four racially integrated urban schools (as opposed to inner city or suburban) with the entire range of socioeconomic status represented. One of the nonmetropolitan communities was served by one racially integrated high school, with four feeder junior high schools. One of the junior high schools which was integrated and represented the entire range of socioeconomic status was selected. The other community had an all-Caucasian student population served by a rural, consolidated school. Thus, seven schools were represented in the field testing.

In each of the participating schools, administrative considerations necessitated the use of regularly constituted home economics classes, although it is felt that the unit is appropriate

for all secondary girls. Four classes at each grade level were selected in the metropolitan area with the help of the city supervisor. Two seventh grade and two ninth grade classes were selected in each of the nonmetropolitan communities. However, only one of the communities could make eleventh grade classes available, so only two eleventh grade classes from the same community participated.

The community-size variable was tested for effects on pretest scores. Since there was only one significant effect, it was concluded that it was not necessary to maintain the community-size distinctions for further analyses. Thus, the sample for this study was organized as indicated in Table 1.

Table 1

Numbers of Students in Participating Classes

	Experimental	Control	Total
Grade Level			
Seventh	87	35	122
Ninth	93	60	153
Eleventh	31	20	51
Total	211	115	326

Procedures

Teacher Workshop. A one day workshop for the teachers of the experimental classes was planned to familiarize them with the materials involved and to equate their background information on the topics included in the unit. The format of the workshop had the teachers respond to the questionnaire described earlier, discuss both the administration and the content of the questionnaire, read through and discuss the student materials and the teacher manual, and view and discuss the film. A final discussion was used to answer any remaining questions the teachers raised. (Although original plans called for one workshop for all teachers, it was necessary to hold two, due to an airline strike. The same format was followed for both workshops, but, of course, discussion varied with the two groups.)

Teaching of Unit. All of the experimental classes used the same materials and order of presentation. Teachers were encouraged to use the methods which they had found most satisfactory for working with their specific classes. Participating classes were observed by the project director or the research associate during the first week of the unit. Any questions which the teachers had at that point were answered. Teachers also were encouraged to request help at any other point in the unit, but apparently did not encounter problems.

Data Collection Methods. Data were collected in March and April 1969, by participating teachers using a standard administration procedure (see Appendix B). For the experimental groups, the pretest immediately preceded the unit, with the posttest being administered immediately following the completion of the unit. For all but one class, this involved a two week interval. In one class, the posttest was administered in the third week following the pretest. For the control groups, the two test administrations were two weeks apart. Written comments from students participating in the experimental groups and daily records maintained by the teachers also were collected.

Analysis

Knowledge of Work, Attitude Scales, Planning Items. The effects of grade level and of experimental versus control group membership were analyzed for pretest and for posttest scores using a two-way analysis of variance which allows for unequal cell frequencies (Winer, 1971).

Student Evaluations of the Unit. Responses written by students to questions about the value of the unit and their reactions to it were summarized to show the percentage at each grade level sharing each kind of response.

Reliability Estimation. Two reliability estimates were obtained. Reliability was estimated for knowledge of work and for each attitude scale by the test-retest correlations of the control groups over an interval of two weeks. Internal consistency reliability estimates (Kuder-Richardson Formula 8) were made by re-analyzing the scales developed by Lee, et al. (1971), using the shortened forms developed for this study.

RESULTS

The results of the analyses of data from the evaluation instrument are presented in this section, followed by a discussion of the responses of the students and the teachers in their evaluation of the unit.

Evaluation Instrument

Reliability estimates for the knowledge of work test and the five attitude scales are presented in Table 2. The internal consistency estimates for the attitude scales are higher than that of the knowledge of work test, most probably because several dimensions are present in the knowledge of work test while each of the attitude scales was developed as a single factor. The test-retest correlations, based on the responses of the control group, may have been lowered by effects of the pretest if it stimulated some girls to consider plans for adult life, even though these students did not participate in the unit.

Table 2
Reliability Estimates for Knowledge of Work
and Attitude Scales

Scale	No. of Items	r(KR-8) (N=365)	r(test-retest) (N=115)
Knowledge of Work	40	.65	.57
Economic Mobility	8	.82	.49
Role Security	8	.74	.33
Intrinsic Reward	8	.85	.54
Challenge	8	.70	.60
Extrinsic Reward	8	.71	.71

The means and standard deviations for each of the scales are presented in Table 3. A summary of the pretest and posttest analysis of variance results is presented in Table 4. The analyses of

Table 3

Means and Standard Deviations for Pre- and Posttest Scores

Scale	7th Grade (N=87)		Control (N=35)		9th Grade (N=93)		Control (N=60)		11th Grade (N=31)		Control (N=20)	
	Experimental Mean	S.D.	Mean	S.D.	Experimental Mean	S.D.	Mean	S.D.	Experimental Mean	S.D.	Mean	S.D.
Knowledge of World of Work	20.62	3.94	21.29	2.92	21.65	3.91	21.78	3.16	22.90	3.09	23.10	3.24
Economic Mobility	26.59	6.33	21.14	2.56	28.83	6.91	23.02	3.52	27.39	3.08	24.80	2.93
Role Security	30.75	5.36	29.46	5.41	30.10	4.81	31.15	4.50	32.35	3.07	31.05	4.17
Intrinsic Reward	31.74	4.47	29.23	6.38	30.74	5.55	30.37	5.09	33.68	3.38	29.70	6.02
Challenge	19.59	4.82	20.37	4.94	19.62	4.14	20.97	4.18	18.19	3.27	18.00	3.73
Extrinsic Reward	12.63	4.36	19.31	4.59	20.10	5.40	21.20	4.68	20.45	4.50	18.95	4.55
First job (98)*	31.79	3.57	32.26	4.68	32.04	3.61	32.83	3.32	34.00	3.06	31.75	3.51
Never plan to work (83)	27.43	3.64	26.77	4.26	25.96	3.43	27.58	4.42	27.74	4.37	26.85	3.17
Work after high school (82)	27.40	4.39	27.37	3.47	28.45	4.14	27.17	4.24	28.81	5.02	26.20	3.68
Work after college (86)	27.90	4.04	26.60	4.07	27.67	3.50	27.27	4.21	26.84	5.05	27.25	3.58
Quit work when marry (87)	28.13	4.47	27.40	3.90	28.58	4.08	27.20	4.58	28.06	5.16	27.90	4.13
Work after marriage until child (88)	3.28	1.59	3.17	1.56	3.68	1.63	3.37	1.50	3.06	1.67	3.85	1.14
Return to work right after child (89)	3.23	1.49	2.54	1.38	3.77	1.50	3.47	1.50	2.81	1.42	4.15	0.75
Work after children are in school (90)	0.09	0.29	0.03	0.17	0.15	0.36	0.08	0.28	0.03	0.18	0.05	0.22
Work after children are in h.s. (91)	0.13	0.33	0.03	0.17	0.09	0.28	0.07	0.25	0.00	0.00	0.10	0.31
Work after children are "grown" (92)	0.62	0.49	0.66	0.48	0.63	0.48	0.82	0.45	0.61	0.50	0.60	0.50
Work continuously (94)	0.67	0.50	0.66	0.48	0.70	0.46	0.82	0.45	0.58	0.50	0.60	0.50
	0.68	0.47	0.74	0.44	0.61	0.49	0.68	0.47	0.55	0.51	0.55	0.51
	0.67	0.47	0.74	0.44	0.63	0.48	0.58	0.50	0.52	0.51	0.40	0.50
	0.18	0.39	0.23	0.43	0.16	0.37	0.15	0.35	0.00	0.00	0.15	0.37
	0.16	0.37	0.20	0.41	0.17	0.38	0.23	0.43	0.10	0.30	0.25	0.44
	0.55	0.50	0.63	0.49	0.59	0.49	0.72	0.45	0.68	0.48	0.75	0.44
	0.71	0.46	0.63	0.49	0.66	0.48	0.62	0.49	0.94	0.25	0.75	0.44
	0.23	0.42	0.11	0.32	0.13	0.34	0.18	0.39	0.23	0.43	0.20	0.41
	0.22	0.42	0.11	0.32	0.18	0.39	0.27	0.45	0.16	0.37	0.25	0.44
	0.31	0.49	0.31	0.47	0.33	0.47	0.47	0.50	0.39	0.50	0.35	0.49
	0.61	0.49	0.26	0.44	0.46	0.50	0.48	0.50	0.65	0.49	0.45	0.51
	0.31	0.47	0.51	0.51	0.33	0.47	0.50	0.50	0.48	0.51	0.50	0.51
	0.56	0.50	0.51	0.60	0.55	0.50	0.58	0.50	0.77	0.43	0.50	0.51
	0.38	0.49	0.46	0.51	0.44	0.50	1.50	0.50	0.55	0.51	0.50	0.51
	0.55	0.50	0.40	0.50	0.60	0.49	0.55	0.50	0.81	0.40	0.45	0.50
	0.28	0.45	0.34	0.48	0.34	0.48	0.42	0.50	0.39	0.50	0.40	0.50
	0.39	0.49	0.34	0.48	0.32	0.47	0.37	0.49	0.52	0.51	0.50	0.51

*Item numbers (Appendix A) given in parentheses.

Table 4

Summary of Significant Pretest and Posttest
Analysis of Variance Results

Scale	Experimental vs. Control		Grade Level		Interaction	
	Pre	Post	Pre	Post	Pre	Post
Knowledge of Work		**	**	**		
Attitude Scales						
Economic Mobility		**				
Role Security			**	*		
Intrinsic Reward					*	*
Challenge		**				
Extrinsic Reward						
Planning Items						
98. Choice of first occupation				**		**
83. Never work						
82. Work after high school						
86. Work after college				*		
87. Stop working at marriage						
88. Work after marriage until first baby				*		
89. Return to work after children are born						
90. Work after children begin school		**				*
91. Work after children are in high school						
92. Work after children are grown		**				
94. Work continuously						

*.01 > p < .05
**p < .01

variance details are available in Appendix C. Results are presented and discussed by reference to unit objectives listed earlier.

Objective 1. Students will have more knowledge about women in the work force as exhibited by more correct answers to objective information items on a posttest than on a pretest.

Analysis of knowledge of work pretest scores revealed no statistically significant difference between the experimental and control groups. However, pretest scores were significantly different among the grade levels. Examination of Table 3 shows that, although these grade level pretest differences are statistically significant, there is very little absolute difference in occupational information from grade seven to grade eleven. Apparently, chance and out-of-school activities cannot be relied upon to provide the base of information represented by this instrument upon which students can make occupational decisions.

Substantial gains in knowledge of work scores were recorded in posttest scores at each grade level for the experimental group while the control group scores remained at the original level. Table 3 shows that the ninth grade experimental group gained an average of seven items; the seventh grade, six items; and the eleventh grade, four items. The analysis of variance of posttest scores shows that the significant difference among the grade levels found in the pretest still remains, but that experimental groups scored significantly higher after the unit than did the control groups.

It is a fairly straightforward task to present information to a group which is lacking in such information and then find that such information has been gained. Whether or not such information will be retained over a period of time is open to question. This question will be addressed by a follow-up study during which the same students will again respond to the knowledge of work items.

Objective 2. Students will show, by responses to attitude items, more acceptance of the working role in their lives.

On none of the five attitude scores was there a significant difference between the experimental and the control groups on the pretest, though there were small, significant differences among grade levels on the "Role Security" scale. Mean "Role Security" scores (Table 3) for seventh and eleventh graders were lower (more contemporary viewpoint) than for ninth graders.

Posttest scores on two of the five attitude scales showed significant differences between experimental and control groups. Thus, experimental group scores were significantly higher than those of the control group on the "Economic Mobility" scale and on

the "Challenge" scale, but scores on "Role Security," "Intrinsic Reward," and "Extrinsic Reward" were not significantly different for the two groups.

For the "Role Security" scale, significant differences were found among posttest scores by grade level, as on the pretest. Perhaps, views about the traditional role of women are more closely bound to the maturity level of the participating girls than to the information contained in the unit.

There was a significant interaction between grade level and experimental versus control group on the "Intrinsic Reward" scale. Examination of the mean scores shows an increase in the mean scores as grade level increased for the experimental groups with a decrease in mean scores for control groups.

The results reported above indicate that Objective 2 was partially met. Students showed more acceptance of the working role where it related to circumstances under which the respondent would work after marriage, such as working after marriage to have money to buy a home, and where it relates to the challenge of the working role, especially in relation to independence and creativity. Students did not change significantly their responses to items about the traditional role of women, nor their responses to the intrinsic and extrinsic rewards of working. Perhaps, these attitudes are more complex in their determinants than are "Economic Mobility" and "Challenge" and require more or different instructional provisions.

According to most authorities (Horrocks, 1964), attitudes are learned, but there is very little agreement as to the manner or speed with which they are acquired or how they are changed (or unlearned) once they have been acquired. Kiesler, Collins, and Miller (1969), in summarizing a critical analysis of theoretical approaches to attitude change, stated that such theories are still at a relatively low level. They find the theories extremely difficult to compare as assumptions have not been made explicit and details necessary for prediction often have not been supplied.

Several additional questions to be explored about the attitude responses given by the girls are: Will changes recorded immediately following the unit continue or will students revert to their earlier responses? Will students who recorded no change in attitude responses give changed responses later? Will students from the control groups who were given no information about the world of work indicate changes in their work attitudes (especially those in the "Role Security" scale) as part of the "growing up" process? These are questions which should be answered by the follow-up study planned for this group of students.

Objective 3. Students will indicate different choices of occupations.

Students' choices of occupations (item 98 in questionnaire) on the pretest were not significantly different between the experimental and control groups. Each response was assigned to one of the seven categories of Warner's (1960) scale of occupational status (one for professions to seven for unskilled labor). The analysis of variance indicated no significant difference on the posttest, thus this objective was not met. There was a significant difference by grade level on the posttest.

On the pretest, over forty percent of both the experimental and control groups (experimental - forty-one percent, control - forty-six percent) listed a clerical, secretarial job as the one they would like to have when they first start working. The posttest responses were quite similar (experimental - forty-three percent, control - forty-four percent). The only other category with a sizable number of responses was that of lower level professional jobs (e.g., registered nurse, elementary or secondary teacher). On the pretest, twenty-six percent of the experimental group and twenty-four percent of the control group listed such a choice. On the posttest, twenty-six percent of the experimental and twenty-nine percent of the control group indicated their choice in the lower level professional area. As indicated earlier, both the pre- and the posttest responses are indicative of the traditional women's occupations and more work will be needed in order to get girls and women to consider some of the newer options.

Objective 4. More students will indicate plans for the future which show work force participation at some time in their lives.

No significant pretest or posttest difference was found between experimental and control groups in response to item 83 ("I have no plans to ever be employed"); virtually all girls already expected to work at some time in their lives (Table 3). The data in Table 3 (items 82, 86-89) also suggest that, before the unit was introduced, the majority of all girls planned to work some until the arrival of children, did not expect to quit work upon marriage, and did not expect to return to work immediately after the birth of children. The unit could not affect these choices very much and the evidence is that it did not.

Objective 5. More students will indicate that they have considered work life expectancy projections for the total life span.

On the five items related to this objective (89, 90, 91, 92, 94), no significant difference was recorded between the experimental and control groups on the pretest. Significant posttest differences

were recorded however, on two items indicating plans to work after children are out of the home for part or all of the time: item 90 (plan to work after children begin school) and item 92 (plan to work after children are grown). The unit was effective, therefore, in bringing about changes in plans for work later in life.

In response to the question (item 102, posttest) as to whether or not they had changed their plans since they started the curriculum unit, forty-three percent of the experimental seventh graders, thirty percent of the ninth graders, and forty-eight percent of the eleventh graders responded "yes." Space was given for the students to write in comments about what the changes might have been. Eleventh graders most often mentioned changes in terms of education following high school and/or contemplated role changes (such as returning to work when children were in school), while seventh graders most often mentioned changes in occupational plans. Ninth graders often responded "no" and went on to explain that they still intended to be in the same occupational field, but were considering different educational plans or considering role possibilities of which they had not been aware earlier. As the question about changes in plans was not asked of the control groups, no comparisons can be made across the groups.

Evaluation of Unit by Students

All of the students in the experimental groups were asked to write their reactions to the unit by responding to the questions indicated in Table 5. Written responses were obtained from eighty-three percent of the seventh graders, sixty-eight percent of the ninth graders, and 100 percent of the eleventh graders.

Students' responses are summarized in Table 5. For many of the items discussed, some students indicated more than one response and some did not write a response, so the total number of responses to each specific item indicated in the table differs from the number of students responding. The percentages for the response categories are then based on the total number of responses rather than the number of students in each grade who responded. For example, seventh-one (eighty-three percent) of the eighty-seven seventh graders gave a total of eighty-nine responses about what they liked most about the unit. The fourth-three percent figure indicated for "information presented" is forty-three percent of the eighty-nine total responses given.

Comparison of Student Responses

Students at all three grade levels indicated that the information presented was what they liked most about the unit. "Too much reading" was most often cited by seventh graders as what they

Table 5
Student Evaluations of the Unit

	Seventh (N=71)	Ninth (N=63)	Eleventh (N=31)
What Students Liked Most about the Unit			
Total Responses	89 (100%)	101 (100%)	63 (100%)
Information presented	43%	40%	41%
Movies	10%	21%	11%
Discussion	10%	11%	21%
Sociodrama	19%	8%	3%
Case studies	3%	2%	6%
Looking at own future	15%	19%	17%
What Students Disliked about the Unit			
Total Responses	88 (100%)	65 (100%)	38 (100%)
Boring, repetitious, too long	25%	14%	3%
Movies	7%	12%	13%
Discussion	3%	11%	-
All the reading	28%	11%	13%
Too many statistics	19%	17%	32%
Emphasis on women's roles	6%	6%	21%
Tests	6%	8%	-
"Liked everything"	6%	22%	21%
Reasons Students Felt Unit was Worthwhile			
Total Responses	74 (100%)	74 (100%)	51 (100%)
Information on job opportunities	28%	18%	10%
Information about how to get a job	34%	16%	8%
Thinking about the future	18%	24%	16%
Thinking about marriage and family plans	8%	28%	47%
Miscellaneous	12%	14%	20%
Influence of Unit in Future			
Total Responses	33 (100%)	41 (100%)	27 (100%)

(Continued)

Table 5 (Continued)

	Seventh (N=71)	Ninth (N=63)	Eleventh (N=31)
Influence educational plans	21%	17%	22%
Influence job choice	55%	34%	26%
Influence marriage and family plans	3%	17%	26%
Influence future decisions	21%	32%	26%
Student Perception of Parental Involvement with and Reaction to the Unit			
Total Responses	72 (100%)	63 (100%)	31 (100%)
Talked to parents about ideas and information			
Often	15%	19%	30%
Few times	56%	56%	39%
Never	29%	25%	30%
Parents' reaction			
Favorable	47%	57%	71%
Unfavorable	10%	5%	3%
No reaction	43%	38%	26%
Student Reaction to Format of Unit			
Total Responses	72 (100%)	63 (100%)	31 (100%)
Vocabulary level			
Too easy	7%	2%	2%
About right	81%	89%	94%
Too difficult	12%	9%	3%
Charts, tables and transparencies			
Too difficult	47%	17%	12%
Liked class discussions	54%	73%	100%

liked least about the unit and "too many statistics" was most often cited by eleventh graders. The most often recorded response by the ninth graders was that they "liked everything."

Seventh graders felt that information on job opportunities and how to get a job were the things most worthwhile about the unit. Ninth graders most often cited thinking about the future

and thinking about marriage and family plans as most worthwhile. Almost half (forty-seven percent) of the responses at the eleventh grade level indicated that thinking about marriage and family plans was most worthwhile.

A majority of the students at all three grade levels felt that the unit would influence their futures (seventh - sixty-one percent, ninth - seventy-eight percent, eleventh - seventy-two percent), however, the influence was felt to be in different spheres. Seventh graders indicated that the unit would influence their job choices, ninth graders indicated influence on job choice and future decisions and eleventh graders responses were almost equally divided among influence on educational plans, job choice, marriage and family plans, and future decisions.

Seventy to seventy-five percent of all the students had talked to their parents about the unit. Parents who indicated a reaction to the unit were quite favorable.

Seventh graders found charts, tables and transparencies too difficult and also liked the class discussions less than the older students. This would seem to indicate that some of the materials need to be simplified for best reaction for this age group.

Specific Comments Made by Students

Seventh Grade

"I did learn new and different things--it was exciting."

"I think it was good for seventh grade because it will give you a chance to think about the future and not to drop out of school . . . and get as much education as you want for the type of job you pick."

"I think you should give more case study examples."

"It was long and boring but interesting."

"Pay isn't the only think that makes a job good."

"A woman needs some way to keep her independence."

Ninth Grade

"I really am glad that our class took it because now I have a job to think about and want to go on in education."

"I think now that woman can be wife, mother and career lady as well."

"Also, my parents learned and I think thoroughly enjoyed this as much or more than I myself."

"In a sense it shows you that you should look before you leap."

Eleventh Grade

"I think it should be continued because I felt that women shouldn't work unless it was absolutely necessary, I've changed my mind since having this unit."

"I think more information should of been given on the particular fields of work."

"I think it was an interesting unit and I think all girls my age need this to help them decide what they will want to do in the future."

"It should add a section explaining education and jobs women can have at home. Flower shops, antique shops, etc. should be explained. In these situations, women are what men expect them to be, while they have a useful role in the labor force. Femininity should be stressed more."

"It was interesting. I feel I know more about the jobs of my parents."

"It won't influence me because I have my future education, career and life already planned."

"How to plan ahead."

Additional Reactions

From the foregoing comments and the information presented in Table 5, it was apparent that the elements of the unit which the seventh graders felt were most appropriate were the ones related to occupational information, while information about women's role and life span expectancies were largely ignored or found to be uninteresting. The possibility that they may have been casting their mothers in the adult roles rather than themselves, and thus felt that the discussions were not very relevant to them, was suggested by one of the seventh grade teachers in the study.

Mention of parental involvement, both in terms of discussing information with their daughters and in terms of daughters becoming more knowledgeable about their parents' lives, should be noted and perhaps stressed in further use of the materials.

Evaluation of Unit by Teachers

Seventh Grade

The teachers who presented the unit to seventh graders found some of the activities more useful than others. Particular favorites were the sociodrama, the case studies, and the occupational information. The teachers indicated that students in some of the classes had not yet learned to use the concept of percentages which made some of the materials quite difficult to present. Both teachers and students had difficulty with the charts and transparencies, so in the revised materials now available, explanations are made in more detail. (This was true for other grade levels, also.)

The consensus seemed to be that, although the unit helped the students progress, some portions of it would be much more appropriate at a later stage. Perhaps at the seventh grade level emphasis on occupational information is preferable, with role information integrated with the occupational information rather than presented as a separate topic as the students were having difficulty visualizing themselves in adult female roles. This is consistent with the student evaluation of the unit.

Ninth Grade

The evaluation by the ninth grade teachers was positive about all aspects of the unit except for the physical materials. Students objected strongly to the "workbook" concept. This positive response was reflected in the students' evaluation of the unit and also by the fact that the ninth graders showed the highest mean gain on the knowledge of work test.

A number of the students were stimulated to send away for information about such things as cosmetology requirements in Ohio, location and entrance requirements for nursing school, and airline stewardess information. The degree of involvement of the students was judged by the teachers to be at a high level.

Eleventh Grade

The sociodrama and many of the discussion questions were judged to be below the level of the eleventh graders. The girls responded quite eagerly to the information about adult roles, but the teachers judged that most of them already had rather fixed ideas about woman's role and did not feel that they were particularly open to new information.

A great deal of resentment was expressed about the discrepancies in pay between men and women which apparently was new information to the students.

The teachers felt that for their students (most of whom had not had such a unit prior to the eleventh grade) the unit was a useful experience but that, ideally, it should be presented earlier. This sentiment was also expressed by the students.

CONCLUSIONS AND RECOMMENDATIONS

The conclusions derived from analysis of the data collection instrument are presented first, followed by conclusions derived from student and teacher reactions. Recommendations for use and adaptation of the unit are presented.

Conclusions

Meeting of Unit Objectives

With respect to changes observed from pre- to posttest:

- 1) students at all three grade levels (seventh, ninth, and eleventh) gained information about the world of work and women's roles in employment;
- 2) there was some indication of attitude change in the direction of more acceptance of employment after marriage and of more acceptance of the challenges of employment;
- 3) there was no significant change in choices of occupation;
- 4) there was no significant change in plans for some labor force participation, most probably because a very high percentage of students reported on the pretest that they planned some labor force participation; and
- 5) more students indicated plans to work after children begin school and after children are grown following participation in the unit.

Student Response to Unit

The following conclusions are based on the responses of the students who participated in the experimental groups.

- 1) A majority of the students at each grade level indicated that the unit will influence their futures.
- 2) Thinking about marriage and family plans was cited most frequently by eleventh graders as the most worthwhile benefit of the unit; ninth graders indicated thinking

about marriage and family plans and thinking about the future; and seventh graders indicated information about how to get a job.

- 3) The information presented was most frequently cited by students at all three grade levels as what they liked most about the unit.
- 4) The statistics presented were most frequently cited by eleventh graders as what they most disliked about the unit; seventh graders most disliked the amount of reading. The most often recorded response for ninth graders was that they "liked everything."
- 5) Students perceived the vocabulary level as about right, but particularly the seventh graders found the charts and tables too difficult.
- 6) Students perceived parental reaction to the unit as favorable.

Teacher Response to Unit

- 1) Teachers at the seventh grade level indicated that emphasis on occupational information is preferable at that level.
- 2) Teachers at the ninth grade level judged student involvement to be quite high and were very positive about the unit.
- 3) Teachers at the eleventh grade level felt that the unit was a useful experience, but that, ideally it should be presented earlier.

Recommendations

The following recommendations are made for possible uses of the unit, "Planning Ahead for the World of Work."

- 1) While the unit appears usable at all three of the grade levels tested, this study indicates that optimal use would be with the ninth grade. Many educational decisions need to be considered at this level, such as the course of study to be pursued in high school, and whether to include courses which would make the student eligible for attending college. If such decisions can be tempered by the kinds of information presented by the unit (as well as by what one's best friend is doing), they probably will

lead to less frustration in the future. Use at the seventh grade level probably would require that the emphasis be placed on the occupational information, particularly section one. Later use probably would require emphasis on the discussion of roles, particularly sections three and four. (This recommendation should not be construed as meaning that no consideration of self in the world of work should occur prior to seventh grade; rather, that these are the appropriate levels for this particular set of materials.)

- 2) Although the unit is of short duration, it is recommended that awareness of the world of work and of personal involvement in the world of work continue beyond the termination of the unit. Such awareness could be promoted by such techniques as bulletin boards, newspaper clippings, and outside resource persons.
- 3) The problems which students seemed to find with the statistics probably could be reduced by stressing this area in training sessions with the teachers and by making it very clear that they probably will need to spend a little extra preparation time with the materials.
- 4) In the present study, home economics classes were the locus of the unit. School counselors were involved as resource persons in two of the schools. It is recommended that counselors be considered also in providing materials, in keeping the materials current (this function could very easily be performed by paraprofessional counselor aides), and, possibly, in teaching the unit, if these are feasible roles in the local school.
- 5) Involvement of parents also would seem to be useful, although it would have to be done with care so that parental standards about women's roles are respected, while information about "the way things are" is made available.
- 6) With slight revision, the materials would be appropriate for use with classes including both boys and girls since the boys are the future husbands of the working wives and since misconceptions about the world of work for women probably are as prevalent among boys as girls.

APPENDICES

APPENDIX A

PLANNING AHEAD

FOR

THE WORLD OF WORK

How do you feel about work? What do you know about working? What are your plans for employment? We are asking you to answer a number of questions which will be helpful to you and to the people who help students make decisions about work.

The questionnaire is divided into three sections. You will be marking your answers on the separate answer sheet. Use the special pencils provided. Notice that the answer spaces are in groups of five. After answering the first five questions, go to the top of the second column to find the space to mark your answer to question six. Be sure you mark the answer for each question in the spaces provided for it.

PART ONE

DIRECTIONS:

For the following statements, decide on the degree to which you agree or disagree with each statement and then mark that answer on the separate answer sheet. This should be how you personally feel about the statement, not how you think other people feel.

Example:

Statement: Work is a lot of fun.

- Possible answers: A. Strongly disagree
B. Disagree
C. Indifferent or don't know
D. Agree
E. Strongly agree

Choose the answer that comes the closest to the way you feel about the statement and mark it on the separate answer sheet. If you "strongly disagree" that work is a lot of fun, you would mark A as the answer by filling in the space under A with the special pencil.

Example: A B C D E
■ || || || ||

If you "agree" that work is a lot of fun, you would mark D as the answer by filling in the space under D with the special pencil.

Example: A B C D E
|| || || ■ ||

Answer every statement. Work quickly. Do not worry or puzzle over individual items. It is your first impressions, the immediate "feelings" that we want. Read each statement carefully, then answer it quickly and go on to the next item immediately. If you have any questions, raise your hand.

DO NOT TURN THE PAGE UNTIL YOU ARE TOLD TO DO SO.

PART ONE

- A. Strongly disagree
- B. Disagree
- C. Indifferent or don't know
- D. Agree
- E. Strongly agree

1. I would work after marriage to have the money to live in a better community.
2. Women who have jobs are not really happy.
3. Working with others would be an important part of a job for me.
4. A chance to work with ideas is the ideal kind of job.
5. A job should have good opportunities for promotion.
6. I would work after marriage to have money to buy basic things.
7. Woman's place is in the home.
8. Opportunities to be helpful to others in my work are important.
9. A job that gives you a chance to create something new is the best kind of job.
10. Good fringe benefits would be one thing to look for in a job.
11. I would work after marriage to have money to buy essentials.
12. Women are too independent today.
13. Being of help to people would interest me.
14. A chance to show inventiveness in meeting new problems is important.
15. A job should have opportunities for early promotion.
16. I would work after marriage to meet financial responsibilities.
17. Most women are not interested in chances to help others through a job.
18. Helping people who are less fortunate is important to me.
19. Women should make their own decisions.

20. Retirement benefits would have to be satisfactory in order for me to consider taking a job.
21. I would work after marriage to have money to buy a home.
22. Most men are not interested in chances to help women advance in a job.
23. Working closely with people would interest me.
24. The chance to supervise activities is an important part of a job.
25. Work seems important to the people who are doing it.
26. I would work after marriage to have money for daily expenses.
27. Women are trying to imitate men.
28. Opportunities to be useful to society through my work are important.
29. Having influence on groups is important to me.
30. Making money is the best thing about having a job.
31. Women may hold jobs after they are married to buy more things for home and family.
32. Parents should encourage the idea of marriage and homemaking (rather than working) from childhood.
33. Working with people is preferable to working with things.
34. Married women should hold jobs so they can have a life of their own.
35. Status symbols (such as a personal office) make a job more attractive.
36. I would work in order to help put my children through college.
37. Most women dislike smart women.
38. A job gives you a good opportunity to meet people.
39. A chance for self-expression is a good reason for taking a job.
40. Opportunity for increasing salary is an important feature of a job.

PART TWO

DIRECTIONS:

There is one right answer for each question in Part Two. Choose one answer for each question and mark it on the answer sheet. Make sure that the number of the answer sheet is the same as the letter of the answer you choose. Answer every question.

Questions 41 to 65 have only four possible answers rather than the usual five. Use only the first four spaces on our answer sheet to answer these questions.

A B C D ~~E~~
|| || || || /

41. When one is thinking about the occupation she might enter as an adult, if her interests, abilities, and preferences did not limit her, approximately how many different jobs could she choose among?
- A. 300
B. 3,000
C. 30,000
D. 300,000
42. The median salary income (half earned more, half earned less) of full-time male workers was \$6,195 in 1964. What would you expect was the median income for female workers in that same year?
- A. \$3,859
B. \$4,285
C. \$6,497
D. \$7,138
43. Approximately what percentage of all women are employed full time in the United States?
- A. 20%
B. 35%
C. 50%
D. 65%

44. About how many women would you estimate are in the labor force?
- A. 260,000
 - B. 2,600,000
 - C. 26,000,000
 - D. 260,000,000
45. Of the four groups below, indicate which educational group has the largest percentage of the women in that group employed full time.
- A. less than high school education
 - B. high school graduate
 - C. college graduate
 - D. education beyond college
46. Look at the four age groups below and indicate which group has the largest percentage of women employed full time (both now and in projections for the 1970's).
- A. 25-34 years old
 - B. 35-44 years old
 - C. 45-54 years old
 - D. 55-64 years old
47. What percentage of girls in your age bracket will probably be married by the time they are 19 years old?
- A. 25%
 - B. 45%
 - C. 65%
 - D. 85%
48. Of those girls in the 18-19 year age bracket who are married, what percentage would you expect are also working?
- A. 18%
 - B. 28%
 - C. 38%
 - D. 48%
49. What is the average number of years that a woman can expect to spend in the labor market?
- A. 4-6 years
 - B. 8-10 years
 - C. 14-17 years
 - D. 20-25 years

50. Considering all the women who are working which of the following categories of educational achievement would account for over 40 percent of the total?
- A. 8 years of school completed
 - B. 9-11 years of school completed
 - C. 12 years of school completed
 - D. 16 years of school completed
51. Among married women in the labor force, the age group represented in greatest number is:
- A. 18-19
 - B. 20-24
 - C. 45-54
 - D. 55-64
52. Over 65 percent of the women employed in clerical positions have completed how many years of school?
- A. 9-11 years of school
 - B. 12 years of school
 - C. 13-15 years of school
 - D. 16 years of school
53. Which of the following occupational areas has the greatest employment growth projection for the 1970's?
- A. farm workers
 - B. sales workers
 - C. non-farm laborers
 - D. clerical workers
54. How many girls of today will work for money at some time during their lives?
- A. about 1 of 3
 - B. about half
 - C. about 3 of 4
 - D. about 9 of 10
55. In 1964, the median yearly income of girls who dropped out of high school was \$1,650. What would you expect to be the median yearly income for high school graduates?
- A. \$2,060
 - B. \$2,400
 - C. \$3,050
 - D. \$4,500

56. In 1964, the median yearly income of girls who graduated from high school was \$2,400. What would you expect to be the median yearly income for college graduates?
- A. \$3,000
 - B. \$3,900
 - C. \$4,400
 - D. \$5,500
57. The average woman worker today is
- A. single and 28 years old
 - B. single and 41 years old
 - C. married and 28 years old
 - D. married and 41 years old
58. More women are working today than ever before. Which of the following is (are) the reason(s)?
- A. less time is needed for housekeeping
 - B. higher family costs for education, health, etc.
 - C. women are seeking the right to choose what they will do
 - D. all of the above
59. When do women make occupational decisions? _
- A. only in high school or college
 - B. when they take a job
 - C. when they have children
 - D. all of the above
60. Projected employment growth is more than average for which occupational groups?
- A. professional and technical workers, service workers, and clerical workers
 - B. professional and technical workers, managers, and operatives
 - C. service workers, sales workers, skilled workers
 - D. clerical workers, sales workers, farm workers
61. In which three occupational groups did women represent over 50 percent of total employment in 1965?
- A. professional and technical, clerical, sales
 - B. clerical, private-household workers, service workers
 - C. managers, operatives, and service workers
 - D. sales, services, craftsmen

62. Looking ahead to 1975 indicate about what percentage of women between 35 and 65 will be working or looking for work.
- A. about 25%
 - B. nearly 50%
 - C. about 75%
 - D. nearly 90%
63. How many different types of jobs are you likely to have during your years of employment?
- A. only one
 - B. three or four
 - C. eight or ten
 - D. dozens
64. When will your occupational education be finished?
- A. when you graduate from high school
 - B. when you finish a vocational program
 - C. once you begin your first full-time employment
 - D. continuing education will be required to meet the challenge of change in the world of work
65. Worthwhile sources of occupational information include
- A. school counselor
 - B. school and public libraries
 - C. friends and relatives
 - D. all of the above

DIRECTIONS:

Questions 66-80 have only two possible answers. Use only the first two spaces on your answer sheet to answer these questions.

In the following pairs, which occupation has the largest total number of people employed?

- 66. A. telephone operator
B. airline hostess
- 67. A. physical therapist
B. nurse
- 68. A. saleswoman
B. fashion coordinator

In the following pairs of occupations, which requires the most education:

- 69. A. librarian
B. surgeon
- 70. A. airline hostess
B. dietitian
- 71. A. typist
B. registered nurse
- 72. A. sales clerk
B. laboratory technician
- 73. A. beauty operator
B. high school counselor

DIRECTIONS:

The following questions can be answered with yes or no. If you decide the answer is "yes," mark "A" beside the item number on the answer sheet. If you decide the answer is "no," mark "B" beside the item number on the answer sheet. Be sure that the letter you mark is the same as the answer you chose. Answer every question. Use only the first two answer spaces on your answer sheet to answer these questions.

Remember - A. yes
 B. no

74. The majority of women employed as professional workers have completed less than 12 years of school.
75. The majority of women employed as medical and other health workers have completed at or above 12 years of school.
76. Summer or part-time job experience is helpful in finding work later.
77. An individual needs to make an alternative vocational plan.
78. It is possible for a woman to successfully combine roles of wife, mother, and worker.
79. There are employment opportunities for women in jobs that are often considered men's work.
80. A study of occupational employment projections is a good way to get some idea of which occupations will offer the best job opportunities in the 1970's.

PART THREE

DIRECTIONS:

For statements 81-94, mark A if the statement applies to you. If it does not apply to you or if you don't know or aren't sure, mark B.

- A. Yes, this statement applies to me.
- B. No, this statement does not apply to me
(or) I'm not sure
(or) I don't know

Statistics show that 90-95 percent of all American women marry and that about one-third of married women are working. Assuming that you will marry some time, which pattern(s) would you plan to follow in your life?

- 81. I plan to marry right after high school.
- 82. I plan to work a couple of years after high school.
- 83. I have no plans to ever be employed.
- 84. I plan to marry while I'm still in college or some kind of occupational education.
- 85. I plan to marry right after college or other education beyond high school.
- 86. I plan to work a couple of years after college or other education beyond high school.
- 87. I plan to quit work when I marry.
- 88. I plan to continue working after I marry until we have our first baby.
- 89. I plan to return to work as soon as possible after my children are born.
- 90. I plan to work after all my children begin school.
- 91. I plan to work after all my children are in high school.
- 92. I plan to work when my children are grown up and on their own.
- 93. I definitely do not plan to marry.
- 94. I plan to work continuously after completing my education.

Pretest Field Study

Name

DIRECTIONS:

Check or write in the correct answer for you. Be sure to put your name on this page and the next page.

95. Do you have plans for education following high school?

_____ Yes _____ No

If your answer is yes, please check the choice you have made.

- _____ junior college
- _____ four year college or university
- _____ business or commercial school
- _____ cosmetology (beauty) school
- _____ nursing school (2 or 3 year registered nurse program)
- _____ other (please specify _____)

96. What are your plans for working after you graduate from high school?

- _____ begin working immediately
- _____ begin working after further education or training
- _____ do not plan to work
- _____ undecided

97. What are your plans for marriage?

- _____ following high school graduation
- _____ following further education or training
- _____ after working at least two years
- _____ no plans for marriage
- _____ undecided

98. What job would you like to have when you first start working?
(examples of jobs include: secretary, waitress, nurse)

Name

99. How much do you think you will be able to earn when you get the job you chose in question 98?

- _____ \$2,000 per year
- _____ \$3,500 per year
- _____ \$5,000 per year
- _____ \$10,000 per year

100. How much education and/or training will you need to get the job you chose in question 98?

- _____ less than high school graduation
- _____ high school graduation
- _____ high school graduation plus some further education
- _____ four years of college
- _____ on-the-job training

101. How many children would you like to have?

102. Has your mother worked outside the home?

103. Is she working now?

104. What does (did) she do?

105. What is your father's occupation?

106. How many years of school did your father complete?
(High school graduation would be equal to 12 years, college graduate would be equal to 16 years.)

107. How many years of school did your mother complete?
(High school graduation would be equal to 12 years, college graduate would be equal to 16 years.)

108. Have you had a job?

109. What did you do?

Posttest Field Study

Name

DIRECTIONS:

Check or write in the correct answer for you. Be sure to put your name on this page and the next page.

95. Do you have plans for education following high school?

_____ Yes _____ No

If your answer is yes, please check the choice you have made.

- _____ junior college
- _____ four year college or university
- _____ business or commercial school
- _____ cosmetology (beauty) school
- _____ nursing school (2 or 3 year registered nurse program)
- _____ other (please specify _____)

96. What are your plans for working after you graduate from high school?

- _____ begin working immediately
- _____ begin working after further education or training
- _____ do not plan to work
- _____ undecided

97. What are your plans for marriage?

- _____ following high school graduation
- _____ following further education or training
- _____ after working at least two years
- _____ no plans for marriage
- _____ undecided

98. What job would you like to have when you first start working?
(examples of jobs include secretary, waitress, nurse)

Name

99. How much do you think you will be able to earn when you get the job you chose in question 98?
- _____ \$2,000 per year
 - _____ \$3,500 per year
 - _____ \$5,000 per year
 - _____ \$10,000 per year
100. How much education and/or training will you need to get the job you chose in question 98?
- _____ less than high school graduation
 - _____ high school graduation
 - _____ high school graduation plus some further education
 - _____ four years of college
 - _____ on-the-job training
101. How many children would you like to have?
102. Have you made any change in your plans since you started this unit of study?
103. Explain your answer to question 102 (If you have made changes in your plans, tell why. If you have not made changes in your plans, tell why not.)

APPENDIX B

Questionnaire Administration

Distribute questionnaires, answer sheets and pencils.

Ask students to fill in blanks for school, city, instructor, and grade on side of answer sheet. Ask students to print in name in boxes provided. It is not necessary for them to blacken the boxes to match their names. Last name should be listed first, then first name and middle initial. If name is too long to fit in spaces, put in as much as will fit in, one letter per space. No other information need be filled in.

Then students should read material on front of questionnaire. Turn to page two and ask students to read page two. Answer any questions that come up. Before telling students to turn to page three and begin, tell them that they are to continue through all three parts of the questionnaire, reading additional directions as they come to them. If at any time they have questions, raise their hands and you will go over and answer the question.

If they change their minds about an answer, the first answer should be erased carefully and the second answer marked in. Ask the students not to doodle on the answer sheets as this interferes with the scoring.

Point out on the answer sheets that after they answer question 5, they need to go to the second column to answer question 6.

APPENDIX C

Table 6
Analyses of Variance: Pretest Scores

Scale	Source of Variation	Sum of Squares	df	Mean Square	F
Knowledge of work	Experimental vs. Control	6.68	1	6.68	0.52
	Grade level	137.81	2	68.90	5.37**
	Interaction	4.36	2	2.18	0.17
	Error	4105.61	320	12.83	
Economic Mobility	Experimental vs. Control	15.87	1	15.87	0.69
	Grade level	83.74	2	41.87	1.81
	Interaction	101.42	2	50.71	2.19
	Error	7404.95	320	23.14	
Role Security	Experimental vs. Control	25.00	1	25.00	1.33
	Grade level	179.85	2	89.92	4.78**
	Interaction	22.02	2	11.01	0.58
	Error	6023.87	320	18.82	
Intrinsic Reward	Experimental vs. Control	6.62	1	6.62	0.50
	Grade level	24.95	2	12.48	0.95
	Interaction	87.38	2	43.69	3.32*
	Error	4204.87	320	13.14	
Challenge	Experimental vs. Control	5.65	1	5.65	0.38
	Grade level	2.12	2	1.06	0.07
	Interaction	34.40	2	17.20	1.16
	Error	4760.33	320	14.88	

Scale	Source of Variation	Sum of Squares	df	Mean Square	F
Extrinsic Reward	Experimental vs. Control	4.18	1	4.18	0.26
	Grade level	15.05	2	7.53	0.47
	Interaction	12.04	2	6.02	0.37
	Error	5151.66	320	16.10	
Choice of First Occupation (98)	Experimental vs. Control	0.92	1	0.92	0.37
	Grade level	5.41	2	2.70	1.10
	Interaction	11.03	2	5.52	2.25
	Error	785.03	320	2.45	
Plan to Never Work (83)	Experimental vs. Control	0.08	1	0.08	1.02
	Grade level	0.30	2	0.15	1.82
	Interaction	0.07	2	0.03	0.42
	Error	26.63	320	0.08	
Plan to Work After High School (82)	Experimental vs. Control	0.07	1	0.07	0.32
	Grade level	0.20	2	0.10	0.43
	Interaction	0.09	2	0.45	0.20
	Error	74.28	320	0.23	
Plan to Work After Completion of Education (86)	Experimental vs. Control	0.12	1	0.12	0.55
	Grade level	0.86	2	0.43	1.87
	Interaction	0.05	2	0.02	0.10
	Error	73.35	320	0.23	
Plan to Stop Working at Marriage (87)	Experimental vs. Control	0.22	1	0.22	1.71
	Grade level	0.57	2	0.28	2.16
	Interaction	0.24	2	0.12	0.92
	Error	42.01	320	0.13	
Plan to Stop Working When First Baby Arrives (88)	Experimental vs. Control	0.50	1	0.50	2.15
	Grade level	0.54	2	0.27	1.15
	Interaction	0.05	2	0.02	0.10
	Error	74.87	320	0.23	

Scale	Source of Variation	Sum of Squares	df	Mean Square	F
Plan to Return to Work After Children are Born (89)					
	Experimental vs. Control	0.05	1	0.05	0.34
	Grade level	0.12	2	0.06	0.40
	Interaction	0.43	2	0.21	1.46
	Error	47.00	320	0.15	
Plan to Work After Children Begin School (90)					
	Experimental vs. Control	0.00	1	0.00	0.00
	Grade level	0.11	2	0.06	0.23
	Interaction	0.79	2	0.40	1.67
	Error	75.97	320	0.24	
Plan to Work After Children are in High School (91)					
	Experimental vs. Control	0.83	1	0.83	3.52
	Grade level	0.32	2	0.16	0.67
	Interaction	0.29	2	0.14	0.61
	Error	75.70	320	0.24	
Plan to Work After Children are Grown (92)					
	Experimental vs. Control	0.05	1	0.52	0.21
	Grade level	0.39	2	0.19	0.78
	Interaction	0.14	2	0.07	0.28
	Error	79.77	320	0.25	
Plan to Work Continuously (94)					
	Experimental vs. Control	0.15	1	0.15	0.68
	Grade level	0.37	2	0.18	0.81
	Interaction	0.03	2	0.02	0.07
	Error	72.99	320	0.23	

*.01 > p < .05
 **p < .01

Table 7
Analyses of Variance: Posttest Scores

Scale	Source of Variation	Sum of Squares	df	Mean Square	F
Knowledge of Work Test					
	Experimental vs. Control	1279.48	1	1279.48	44.26**
	Grade level	292.18	2	146.09	5.05**
	Interaction	97.95	2	48.97	1.69
	Error	9250.17	320	28.91	
Economic Mobility					
	Experimental vs. Control	314.25	1	314.25	11.83**
	Grade level	55.28	2	27.64	1.04
	Interaction	143.31	2	71.65	2.70
	Error	8499.80	320	26.56	
Role Security					
	Experimental vs. Control	0.54	1	0.54	0.02
	Grade level	169.22	2	84.61	3.70*
	Interaction	62.74	2	31.37	1.37
	Error	7326.13	320	22.89	
Intrinsic Reward					
	Experimental vs. Control	55.27	1	55.27	3.43
	Grade level	56.52	2	28.26	1.75
	Interaction	122.70	2	61.35	3.81*
	Error	5157.21	320	16.12	
Challenge					
	Experimental vs. Control	124.23	1	124.23	6.95**
	Grade level	4.90	2	2.45	0.14
	Interaction	39.42	2	19.71	1.10
	Error	5717.85	320	17.87	
Extrinsic Reward					
	Experimental vs. Control	34.46	1	34.46	1.80
	Grade level	1.79	2	0.90	0.05
	Interaction	15.51	2	7.75	0.40
	Error	6129.92	320	19.16	
Choice of First Occupation (98)					
	Experimental vs. Control	0.81	1	0.81	0.39
	Grade level	32.93	2	16.46	7.90**
	Interaction	35.21	2	17.60	8.45**
	Error	666.67	320	2.08	

Scale	Source of Variation	Sum of Squares	df	Mean Square	F
Plan to Never Work (83)	Experimental vs. Control	0.00	1	0.00	0.03
	Grade level	0.03	2	0.01	0.20
	Interaction	0.32	2	0.16	2.21
	Error	23.43	320	0.07	
Plan to Work After High School (82)	Experimental vs. Control	0.10	1	0.10	0.42
	Grade level	0.76	2	0.38	1.66
	Interaction	0.07	2	0.03	0.15
	Error	73.25	320	0.23	
Plan to Work After Completion of Education (86)	Experimental vs. Control	0.06	1	0.06	0.24
	Grade level	2.01	2	1.00	4.30
	Interaction	0.38	2	0.19	0.81
	Error	74.71	320	0.23	
Plan to Stop Working at Marriage (87)	Experimental vs. Control	0.43	1	0.43	2.88
	Grade level	0.05	2	0.02	0.15
	Interaction	0.11	2	0.06	0.37
	Error	47.79	320	0.15	
Plan to Stop Working When First Baby Arrives (88)	Experimental vs. Control	0.64	1	0.64	3.05
	Grade level	1.57	2	0.79	3.77*
	Interaction	0.20	2	0.10	0.47
	Error	66.78	320	0.21	
Plan to Return to Work After Children are Born (89)	Experimental vs. Control	0.03	1	0.03	0.19
	Grade level	0.20	2	0.10	0.62
	Interaction	0.59	2	0.29	1.82
	Error	51.96	320	0.16	
Plan to Work After Children Begin School (90)	Experimental vs. Control	1.85	1	1.85	7.63**
	Grade level	0.43	2	0.21	0.88
	Interaction	2.10	2	1.05	4.34**
	Error	77.55	320	0.24	

Scale	Source of Variation	Sum of Squares	df	Mean Square	F
Plan to Work After Children are in High School (91)	Experimental vs. Control	0.55	1	0.55	2.27
	Grade level	0.32	2	0.16	0.65
	Interaction	0.87	2	0.44	1.78
	Error	78.18	320	0.24	
Plan to Work After Children are Grown (92)	Experimental vs. Control	2.10	1	2.10	8.73**
	Grade level	0.94	2	0.47	1.97
	Interaction	0.85	2	0.43	1.78
	Error	76.83	320	0.24	
Plan to Work Continuously (94)	Experimental vs. Control	0.00	1	0.00	0.01
	Grade level	1.00	2	0.50	2.11
	Interaction	0.13	2	0.06	0.28
	Error	75.60	320	0.24	

*.01 > p < .05
 **p < .01

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