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EDUCATIONAL AND DEMOGRAPHIC CHANGES IN SECONDARY
VOCATIONAL AGRICULTURE AND HOME ECONOMICS
IN MONTANA AS A RESULT OF TITLE IX

by

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ABSTRACT

Title IX of the Vocational Education Act of 1963 as amended in 1972 and 1976 mandates that vocational education be made available to all students. The research reveals what Montana's secondary vocational agriculture and home economics instructors are doing to meet the needs of the non-traditional student. The study looks at student attitude toward classmates and its effect upon performance. Also revealed are the reasons for enrolling in a vocational class as well as joining FFA or FHA.

The research indicates that non-traditional students are not strongly encouraged nor are they discouraged from enrolling. The principle opposition to enrollment is from friends and parents. About 75 percent of the vocational students want to join FFA or FHA. Upon joining females are more active in the organizations.

Vocational agriculture teachers have not made significant changes in teaching methods while the home economics teachers have made numerous changes to accommodate non-traditional students.

CHAPTER I

INTRODUCTION

Vocational education has the responsibility to meet the needs of both male and female students in preparing them to select a career and train for that occupation. This is particularly difficult when the perceived roles of males and females in society are constantly changing. There are those who feel limits on the educational growth of both sexes occur because of the continuing segregation and emphasis on tradition. For example, the class which traditionally included all males still emphasizes the masculine activities and the class which traditionally included all females still emphasizes the feminine activities.

Title IX was made a part of the Vocational Act of 1963 by the Educational Amendments of 1972 and 1976. Title IX mandates that sex discrimination be eliminated in federally assisted vocational education programs. As a result, coeducation is replacing the traditional all male vocational agriculture programs, and the all female home economics class.

Unfortunately, we know very little about coeducation and less about the conditions under which we can expect students to obtain equal benefits from coeducational programs.¹ As the opposite sex enrolls in a traditional home economics class or traditional vocational agriculture class, it was hypothesized that educational problems would occur. Information is needed relative to the problems, if any, which

have arisen because of Title IX so that vocational educators can continue to be successful in meeting the needs of all students. Once the problems have been identified, action can be taken to correct the situation and provide equal opportunities.

PURPOSE

The purpose of this study was to identify those educational and demographic changes which were occurring in secondary vocational agriculture and home economics programs in Montana's public schools as a result of Title IX of the Educational Amendments of 1972 and 1976.

OBJECTIVES

To accomplish the major purpose of this study the following objectives were formulated. The objectives were:

1. To determine if student attitudes toward personal success are affected by enrollment of the opposite sex in a traditional class.
2. To determine if participation by the opposite sex in a traditional class will influence individual participation of the traditional sex.
3. To determine the level of leadership exerted by the opposite sex in a traditional male or female club.
4. To identify the motivating factors causing the opposite sex

- to enroll in a traditional class.
5. To determine if teaching and evaluation methods were being changed because of enrollment of the opposite sex in a traditional class.
 6. To determine if changes had been made in facilities to meet the needs of all students.

STATEMENT OF NEED

As today's students choose their careers, an increasing number are enrolling in non-traditional areas. Today's vocational agriculture class is now likely to contain some female students and the home economics class will contain some male students. As the sex barrier is broken, the teacher is presented with a new set of problems. For example, Hawley in 1971, reported that a decline in career aspirations had been found among high school age girls. The decline was related to their feelings that male classmates disapproved of female's displaying their intelligence.² Not only do teachers face new problems, the student's role and self-image is threatened. How do students perceive and handle themselves in this new role?

As coeducation becomes a fact certain changes should take place. If females are going to participate in vocational agriculture programs changes will likely occur. The physical strength of females will to some extent limit their activities in the laboratory. Consequently,

activities must be altered or different equipment used to accomplish the same thing. The need for additional restrooms is obvious.

The male student in home economics also creates a need for a change. If sewing is a part of the program, dressing rooms for males should be provided. If feminine hygiene is a part of the class, the content would need to be changed to prevent embarrassment. While sewing and cooking, the large hands and physical strength of males may create problems.

With Title IX being mandated by the federal government, many teachers have been resistant or slow to accept non-traditional students. They are not aware of how non-traditional students feel toward their class and its traditional students. Many teachers are operating the same as they always have rather than recognizing the fact that non-traditional students do make a difference in their class and in the performance of the traditional student.

If vocational education is going to meet the needs of both female and male students, these potential areas of conflict must be identified. A study was needed which would reveal to vocational educators and other interested groups the educational and demographic changes that have occurred since 1975 and the enactment of Title IX. It will reveal what the schools and teachers have done to create equal opportunities for students. It will also furnish data to help show how vocational students are reacting to coeducation.

With this information available secondary vocational personnel will be better equipped to deal with coeducation and Title IX. Teacher training institutes will be able to do a better job of preparing teachers, and vocational education will come closer to meeting the needs of all students.

DEFINITIONS

1. Non-traditional student: any male or female student enrolled in a class that, in the past, excluded one of the sexes.
2. Educational changes: changes in; curriculum offering, teaching methods, facilities, recruitment, philosophy of school and teacher.
3. Demographic changes: changes in the sex composition of a class.
4. Title IX: that portion of the Educational Amendments of 1972 and 1976 that deal with sex discrimination.
5. Sex fairness: "Is the absence of differential career treatment on the basis of irrelevant gender differences."⁵
6. FFA: any student enrolled in vocational agriculture who is a dues paying member of the Future Farmers of America.
7. FHA: any student enrolled in home economics who is a dues paying member of the Future Homemakers of America.

ASSUMPTIONS

1. It was assumed that non-traditional students were enrolling in

traditional classes.

2. It was assumed that non-traditional students were participating in traditional club activities.
3. It was assumed that demographic and educational changes were occurring as a result of Title IX.
4. As the sex barrier was broken it was assumed that educational problems would occur.

LIMITATIONS

1. The population surveyed was limited to those teachers of vocational agriculture and home economics programs in Montana who have coeducational programs and who had been in the same school for three years or longer.
2. The time period covered by this project was from 1975 until completion of the survey in the spring of 1979.
3. The student population surveyed was limited to FFA and FHA members in Montana who had been or were currently enrolled in a coeducational vocational program.

PROCEDURE

Selection of Sample Population

A list of secondary vocational agriculture departments which had females enrolled was obtained from the Montana Department of Public

Instruction. A similar list was obtained of those secondary home economics departments which had boys enrolled. From the two lists, those schools which had the same instructor for three or more years were identified. Of all the programs in the state, only 24 vocational agriculture and 24 home economics programs met the selection criteria.

The vocational agriculture student sample was obtained from the FFA membership rosters. Individuals were assigned a number and a table of random numbers was used to obtain random selection of fifty-six boys and fifty-six girls.

The home economics student sample population was identifiable from only five FHA membership rosters. From these rosters, forty girls and thirty-six boys were randomly selected. The remainder of the sample was obtained by asking the selected instructor to select two boys and girls from their vocational classes to complete the student questionnaire. Only those students who indicated membership in the FHA were used.

As a result of this process the sample population was; 25 vocational agriculture teachers, 24 home economics teachers, 112 vocational agriculture students and 148 home economics students.

Permission and Co-operation

A letter explaining the study and requesting permission to use the school's vocational departments and vocational students was mailed to the principal of the selected schools. A stamped self-addressed

envelope was provided.

At the end of two weeks all but nine of the schools had returned written permission. The nine schools were telephoned and permission obtained or a message left for them to return the call. Permission was obtained from all but two schools. The instructors in the two schools were sent questionnaires anyway in hopes that they would participate. In the end, neither school returned the questionnaire.

Instrumentation

A closed form questionnaire that required the participants to respond to items pertaining to educational and demographic characteristics was developed.

From the list of schools that remained after the population was drawn, four vocational agriculture and five home economics program were selected for pretesting the questionnaire. A total of 10 boys and 10 girls in vocational agriculture and the teachers were mailed a questionnaire and letter explaining the purpose of the research. In home economics, the teacher was mailed a letter and questionnaire. They were instructed to select four girls and four boys, who were in FHA, to complete the student questionnaire.

No follow-up was conducted on the pretest questionnaire. After three weeks, the four returned teacher questionnaires and thirty-eight student questionnaires were reviewed and the questionnaire found to be useable.

Mailing and Follow-up

The validated questionnaire, a letter of explanation, and purpose was mailed to the sample population on April 6, 1979 (Appendix B). A stamped, self-addressed envelope was enclosed for the return. Three weeks later, a follow-up letter was mailed to those schools who had not responded. Two weeks later an attempt was made to contact three randomly selected non-responding home economics departments. In all three cases, school had been dismissed for the year.

Those vocational agriculture teachers who did not respond were contacted and given a questionnaire to complete at the annual Vocational Agriculture Teachers Update Conference held in Kalispell, Montana. During the conference, teachers were contacted to obtain information about why there has not been many changes in vocational agriculture because of Title IX.

As a result of the initial mailing and two follow-ups 81 percent of population sampled returned questionnaires. An average of seventy-five percent of the questionnaires were useable.

CHAPTER II

REVIEW OF LITERATURE

Title IX

A female desiring to become an agricultural welder or a ranch hand will often encounter discouragement from her parents, teacher, counselor and friends. A male desiring to become a dress designer or nurse may receive similar treatment. In order to prevent students from being denied the opportunity to participate in non-traditional career training, the federal government included in the 1972 and 1976 Educational Amendments a policy referred to as Title IX. Title IX mandates that sex discrimination be eliminated in federally assisted education programs. Section 901 (a) reads:

No person in the United States shall on the basis of sex, be excluded from participation in, be denied the benefits of or be subjected to discrimination under any education program or activity receiving federal financial assistance. 3

The implication of Title IX for vocational education is that programs must become coeducational. This means schools, instructors, counselors, and others can not, on the basis of sex, exclude any person from admission to any class. However, just allowing the class to become coeducational is not enough. Educators must try to achieve equal benefits for both gender. "Educators must look, therefore, for methods consistent with coeducation by which girls and boys can achieve equity of benefit, including such benefits as the opportunity to be leaders, followers, mathematicians, mechanics or athletes."¹ Another

impact that occurs with coeducation is sex fairness. Educators may permit this to occur unconsciously "unless other specific contextual interventions are employed."¹

Reducing Sex Bias

In a review of literature, Beach (May 1977) identified some activities that can serve to reduce or inhibit sex discrimination.

They are:

1. Inform girls of opportunities available in non-traditional education.
2. Provide personal support and encouragement to females involved in non-traditional programs.
3. Help women anticipate problems that they might encounter.
4. Identification of elements of sex bias and sex role stereotyping in recruitment.
5. Provide vocational educators information about the problem of sex bias.
6. Provide opportunities for educators to formulate plans of action to reduce bias.
7. Train people to serve as resource persons on the subject.

Of these activities, three of the seven deal specifically with providing direct help to females.⁴ Six things that can be done to combat sex role stereotyping were identified by Sandler (1978). They are:

1. Implement fully the amendments of 1976.
2. Change recruitment and admission policies and practices.
3. Improve guidance and counseling efforts.
4. Revise curriculum and teaching methods.
5. Increase the number of non-traditional teachers.
6. Continue important research and development efforts on women in vocational education. 10

This raises several questions: 1) How do traditional teachers feel about helping non-traditional students? 2) What kind of recruit-

ment and guidance programs are being conducted to inform non-traditional students of career opportunities? 3) What curriculum and teaching methods are being changed to eliminate sex bias?

Schenk (1977) reported in his research that, "Teachers were not openly resistant to having females in their classes, but neither were they enthusiastic. Overall, the teachers saw more positive than negative effects of having females in their courses, but they seldom showed any effort to increase female enrollment."⁵ In addition, schools have done little to design specific procedures or programs to encourage females to consider entering non-traditional occupations.⁶ In addition, Klein (March 1979) stated that, "Instructors have made few changes in their curriculum or teaching methods."¹¹

Enrollment

Even though active recruitment may not be taking place, there is an increasing number of students enrolling in non-traditional classes. Nationwide statistics show that the number of females in vocational agriculture rose from 5.4 percent in 1972, to 15.4 percent in 1976.⁹ The number of males in consumer home economics rose from 7.9 percent in 1972, to 18.1 percent in 1975. In occupational home economics the increase was from 13.9 percent in 1972, to 26.8 percent in 1975.⁵

It is logical that a similar movement is taking place at the secondary level in Montana, however, no figures were found at this time as to enrollment. A study of 39 vocational agriculture departments

in Idaho revealed a mean of 64.7 males and 7.8 females enrolled in the 1977-1978 school year.¹¹

An ever increasing number of females are enrolling in vocational agriculture and participating in Future Farmers of America activities. Females have held State and National offices in the organization. Likewise, the same is true for the Future Homemakers of America.

In Montana, the trend at the college level is for an increasing percent of women to enter into agriculture and natural resources. For the school year of 1971-1972, twelve or 5.3 percent of the graduates receiving Bachelor of Science degrees in agriculture and natural resources were females. By the 1976-1977 school year the number had increased to sixty-seven or 18.3 percent of the enrollment being females.⁷

A similar movement is taking place in home economics. In 1971-1972, one or 1 percent of those graduating in home economics were male. By 1976-1977 the number had increased to sixty-one or 28.4 percent being male.⁷

Educational Conflicts

Coeducation has some basic assumptions that lead to educational conflict. These assumptions are: male and female students have the same learning ability, both genders have the same desire to work after graduation, and that traditional teachers can adjust to teaching non-traditional students.⁷ In 1975, Curry reported that Hutt (1972) iden-

tified a number of sex differences that affect educational achievement.

They are:

1. Females hold more in memory for shorter periods than males.
2. Males are more exploratory, possess more intrinsic motivation, drive and ambition than females.
3. Females mature earlier than males.
4. Females have a keener sense of smell.
5. Females are more sensitive to touch and pain than males.
6. Males excel in spatial ability.
7. Females speak more fluently.
8. Competition between sexes is unfortunate because it aids in negative self concept development. 7

If educational conflicts are going to be eliminated, educators who have taught traditional classes must be made aware of these learning differences. In May of 1978, Kane and Frazee reported that females enrolled in classes requiring masculine skills had more problems than females enrolled in classroom situations. Females who were in the class requiring masculine skills needed more out-of-classroom support. Females also felt that male students had difficulty adjusting to females in the class and that the teacher expected them to perform at a higher level than the males.¹²

The research pointed out that females are accepting the challenge to perform at a higher level and that they have a better attitude. The Pennsylvania Department of Education found that eleventh grade female students, as a group, displayed a significantly more positive attitude toward work than did male students.¹³ Klein (1979) found that females have better attitudes than males for doing classwork but poorer attitudes

when it comes to fair play. Females were not as good as males in doing shop work.¹¹

Conclusions

It seems that such a timely and important subject would have been thoroughly researched by now. But that is not the case. Schench, in 1977, reported that, "vocational educators are only now beginning to report in any amount on the subject of sex fairness." He also reported that little doctoral research is being done in the area.⁵ Lockhead in 1976, reported that research is needed to identify methods being used to eliminate unconscious educational conflict. Research must also determine under what conditions coeducation can provide equal benefits to vocational students.¹

The requirement to eliminate sex bias and meet the needs of all students is a difficult task. If educators are going to complete this task, research must be conducted and areas of conflict identified. Once identified, solutions must be developed and these solutions put into practice.

"Unfortunately, we know very little about coeducation."¹ As educators we must accept the challenge of coeducation and strive to meet the needs of all students so that they may have a full and successful future.

CHAPTER III
PRESENTATION OF DATA

Population Information

The objectives of the study were quantified by mailing a questionnaire to 24 vocational agriculture and 24 home economics programs in Montana. From these department the instructor and selected students responded to a questionnaire. The data were compiled and percentages figured. The percentages shown in all table have been rounded to the nearest whole percent. On some questions the respondents were not limited to one response, consequently the percentage will not equal 100 percent.

A portion of the returned student questionnaires were not used because they were non FFA or FHA members or the instrument was not complete.

TABLE 1
SUMMARY OF RESPONSES

Population	No. Sent	Useable Returns	%
H. Ec Teachers	24	16	66
H. Ec Females	76	51	67
H. Ec Males	72	37	51
Vo Ag Teachers	25	24	96
Vo Ag Females	56	48	86
Vo Ag Males	56	48	86

The data in Table 1 show that 96 percent of the vocational agriculture teachers and 66 percent of the home economics teachers responses were useable. In vocational agriculture, 86 percent of the student returns were useable and in home economics 67 percent of the females and 51 percent of the male student returns were used.

TABLE II

1978-79 ENROLLMENT IN COEDUCATION CLASS

Status	Home Economics				Vocational Agriculture			
	Females	%	Males	%	Females	%	Males	%
Presently enrolled	43	84	28	76	45	94	45	94
Previously enrolled	49	96	31	84	35	73	34	71
Not presently enrolled	8	16	9	24	3	6	3	6
Not previously enrolled	2	4	6	16	13	27	14	29

In home economics, 84 percent of the females and 76 percent of the males were enrolled in a coeducational vocational class at the time of the survey. No reason was given as to why 16 percent of the females and 24 percent of the males were not enrolled in home economics, yet they indicated current participation in FHA. Freshman or first year students accounted for those not previously enrolled.

In vocational agriculture, 94 percent of the males and females were currently enrolled. Not previously enrolled in a coeducational vocational agriculture class were 27 percent of the females and 29 percent of the males.

The implementation regulation for Title IX was issued by the Secretary of Health, Education and Welfare in June, 1975. This means that Title IX has been in effect four school years. Interesting to note, that data in Table III reveal 38 percent of the home economics teachers have been teaching coeducation for 5-6 years and 25 percent have had coeducational class for 7 or more years.

TABLE III
EXPERIENCE IN TEACHING COEDUCATIONAL CLASSES

Years	Home Economics		Vocational Agriculture	
	Number	%	Number	%
1-2	1	6	4	17
3-4	5	31	5	22
5-6	6	38	3	13
7 or more	4	25	11	48

In vocational agriculture 13 percent of the teachers have had coeducational classes for 5-6 years and 48 percent have been teaching coeducational classes for 7 or more years.

Enrollment Data

A review of the literature revealed there is a definite increase in non-traditional enrollment. Also revealed is the fact that there are a number of sex differences that affect educational achievement. One might hypothesize then, that as more non-traditional students enroll there could be a decrease in enrollment by the traditional student.

TABLE IV
ENROLLMENT BY TRADITIONAL STUDENTS

Trend	Home Economics		Vocational Agriculture	
	Number	%	Number	%
Increased	2	13	11	46
Remained constant	13	81	12	50
Decreased	1	6	1	4

As the data in Table IV show, this is not the case in Montana at present. In home economics, 13 percent of the teachers indicated an increase in enrollment as did 46 percent of the vocational agriculture teachers. The two instructors who reported a decrease indicated that the decrease was due to declining school enrollment.

If non-traditional students decide to enroll in a vocational class, one might ask, "Why does the non-traditional student want to enroll in a traditional class?" The data in Table V reveal there are a number of reasons why non-traditional students are enrolling. The most popular reasons checked by the non-traditional male in home economics were; a personal interest in the subject, an interest in FHA, and to prepare for a career. Thirty-two percent of the non-traditional students in home economics were encouraged to enroll by upper classmen. The home economics teachers give encouragement to 30 percent of the male students. Only 11 percent of the males enrolled wanted to be with the opposite sex and 19 percent wanted to be with their friends.

As the information in Table V reveals traditional home economics

students reported that personal interest in the program and interest in FHA were the principle reason for enrolling.

In vocational agriculture, 100 percent of the females and 92 percent of the males indicated they enrolled because of personal interest. Seventy-seven percent of the females and 75 percent of the males indicated that an interest in FFA was a major factor in their decision to enroll in vocational agriculture. Preparation for a career was a selection factor for 48 percent of the females and 60 percent of the males. Only 8 percent of the females indicated that they enrolled in vocational agriculture to be with the opposite sex.

TABLE V

WHY STUDENTS ENROLL IN HOME ECONOMICS AND VOCATIONAL AGRICULTURE

Factors	Home Economics				Vocational Agriculture			
	Females	%	Males	%	Females	%	Males	%
Personal Interest	51	100	33	89	48	100	44	92
Parents wanted enrollment	6	12	5	14	11	23	15	31
To be with friends	18	35	7	19	7	14	10	21
To be with opposite sex	2	4	4	11	4	8	1	2
Encouraged by teachers	7	14	11	30	13	27	11	23
Encouraged by guidance counselor	3	6	7	19	5	10	1	2
Encouraged by principal	-	0	-	0	2	4	-	0
Encouraged by upper classmen	6	12	12	32	20	41	17	35
Preparation for career	14	27	7	19	23	48	29	60

TABLE V (cont.)

WHY STUDENTS ENROLL IN HOME ECONOMICS AND VOCATIONAL AGRICULTURE

Factors	Home Economics				Vocational Agriculture			
	Females	%	Males	%	Females	%	Males	%
Interest FFA or FHA	30	59	16	43	37	77	36	75
Others	3	6	4	11	8	16	2	4

The information in Table V indicates that guidance counselors are not actively encouraging students to enroll in a vocational class. There is a tendency for them to encourage non-traditional students more than traditional students. Although they are not actively encouraging enrollment, they are not in opposition to enrollment in a vocational class. As the data arrayed in Table VI reveal, no home economics students received opposition from the guidance counselor and only 2 percent of the vocational agriculture students received opposition from them.

TABLE VI

OPPOSITION ENCOUNTERED BY STUDENTS WHEN
ENROLLING IN A VOCATIONAL CLASS

Source	Home Economics				Vocational Agriculture			
	Females	%	Males	%	Females	%	Males	%
Parents	-	0	2	5	5	10	3	6
Friends	3	6	5	13	5	10	8	17
Teacher	-	0	-	0	-	0	1	2
Guidance Counselor	-	0	-	0	1	2	1	2
Member of Voc. Class	-	0	1	3	2	4	-	0

TABLE VI (cont.)

OPPOSITION ENCOUNTERED BY STUDENTS WHEN
ENROLLING IN A VOCATIONAL CLASS

Source	Home Economics				Vocational Agriculture			
	Females	%	Males	%	Females	%	Males	%
Opposite Sex	-	0	-	0	5	10	-	0
No Opposition	47	92	30	81	34	71	36	75
Other	1	2	1	3	-	0	1	2

In home economics, 92 percent of the females and 81 percent of the males indicated that there was no opposition to their enrollment. In vocational agriculture 71 percent of the females and 75 percent of the males indicated no opposition. Showing up as an opposition force was pressure from friends. Six percent of the females and 13 percent of the males in home economics revealed that their friends were in opposition to their enrollment. In vocational agriculture, 10 percent of the females and 17 percent of the males indicated opposition from their friends. Only 3 percent of the non-traditional home economics students, and 4 percent of the non-traditional vocational agriculture students received opposition from traditional students.

Instruction Change

With non-traditional students enrolled, the question arises, "What changes, if any do teachers need to make to meet the needs of all students?" As the review of literature indicated, there are a number of sex differences that affect educational achievement. This suggests

that some teaching activities might need to be changed. Consequently, the teachers were asked to identify those activities that had to be eliminated or changed.

TABLE VII

ACTIVITIES CHANGED BY VOCATIONAL AGRICULTURE
TEACHERS AS THE RESULT OF COEDUCATION CLASSES

Activities	Number	%
Have not eliminated anything	21	88
Developed individualized lessons	1	4
Bypass certain activities	1	4
Depth of study in reproduction	1	4
Time spent on reproduction	-	0
Eliminated a shop activity	-	0
Eliminated lessons that might cause embarrassment	-	0

The data in Table VII and VIII reveal the vocational agriculture teachers haven't changed their activities to the extent that home economics instructors have. Eighty-eight percent of the agriculture teachers have not eliminated activities while only 38 percent of the home economics teachers have not eliminated any activities.

In discussing this with vocational agriculture teachers it was observed that they feel what they were teaching before Title IX was just as important then as it is today, and the concepts taught are equally important for both genders who are interested in a career in agriculture.

Therefore, they are hesitant to change. They did, however, indicate that there are areas where the non-traditional student had difficulty. The main area of concern was with the manual skills in the shop.

TABLE VIII
ACTIVITIES CHANGED BY HOME ECONOMICS
TEACHERS AS THE RESULT OF COEDUCATION CLASSES

Activities	Number	%
Have not eliminated anything	6	38
Developed individualized lessons	7	44
Classes on feminine hygiene	5	31
Depth of study in child care	2	13
Bypass certain activities	2	13
Lessons that might cause embarrassment	1	6
Laboratory activities because of strength	1	6
Depth of study in human reproduction	-	0
Time spent on human reproduction	-	0

Home economics instructors have approached the problem differently. Forty-four percent of them have developed individual lessons for their students and 13 percent have bypassed certain activities. Thirty-one percent eliminated classes on feminine hygiene and 13 percent reduced the depth of study in child care.

In terms of changes made in teaching methods, 75 percent of the home economics and 33 percent of the vocational agriculture teachers

indicated that they had made changes. Of those instructors who made changes, a variety of teacher activities were implemented to make the instruction anti-sexist.

TABLE IX

WAY IN WHICH INSTRUCTIONAL MATERIALS WERE MADE ANTI-SEXIST

Technique	Home Economics N=12		Vocational Agri- culture N=8	
	Number	%	Number	%
Bulletin Boards	11	92	3	38
Examples of both genders in teaching	11	92	6	75
Changed text book	5	42	1	12
Discuss careers for both genders	10	83	7	88
Eliminated teaching materials	6	50	1	13
Changed FFA or FHA constitution	7	58	6	75
Others	-	0	1	13

As the data presented in Table IX indicate, instructors are discussing career opportunities for both genders, and using examples of both in teaching and one bulletin boards. Surprisingly, 42 percent of the home economics and 12 percent of the vocational agriculture teachers had changed text books to eliminate sex bias.

The FFA or FHA constitution was reported to have been changed in 58 percent of the home economics programs and in 75 percent of the vocational agriculture programs.

The data in Table X show that 75 percent of the instructors have

not changed their grading system. As indicated earlier home economics has individualized their instruction, consequently 25 percent have individualized their grading and 17 percent have revised their performance standards. Twenty-five percent of the vocational agriculture teachers have individualized their grading.

TABLE X
CHANGES BEING MADE IN GRADING SYSTEMS
AS A RESULT OF COEDUCATION

Changes	Home Economics N=12		Vocational Agri- culture N=8	
	Number	%	Number	%
None	9	75	6	75
Revised performance standards	2	17	-	0
Individualized	3	25	2	25
Lowered performance standards	-	0	-	0
Allow for physical differences	2	17	-	0
Others	-	0	-	0

Non-traditional students would generally lack a knowledge of the terms used in a traditional class. Consequently, instructors were asked if they had made changes in language used. The data in Table XI show that in home economics 75 percent had developed and included new terms in their lessons. Fifty percent had to spend additional time on the meaning of terms and 45 percent revealed that they had eliminated certain terms.

TABLE IX
CHANGES IN LANGUAGE USED IN LESSONS

Changes	Home Economics N=12		Vocational Agri- culture N=8	
	Number	%	Number	%
Elimination of certain terms	5	42	2	25
Additional time on meaning of terms	6	50	3	38
Develop & include new terms	9	75	2	25
No changes have been made	2	17	2	25
Others	1	8	-	0

In vocational agriculture, 38 percent had to spend additional time on the meaning of terms. The development and inclusion of new terms, and the elimination of certain terms was reported by 25 percent of the vocational instructors.

TABLE XII
REASONS FOR CHANGING FIELD TRIPS

Changes	Home Economics N=14		Vocational Agri- culture N=8	
	Number	%	Number	%
Made no changes	14	100	7	88
Difficulty in getting additional chaperones	-	0	1	13
Problems in getting students released	-	0	1	13
Problems with overnight stays	-	0	-	0
Previous trips not suitable	-	0	-	0

TABLE XII (cont.)

REASONS FOR CHANGING FIELD TRIPS

Changes	Home Economics N=14		Vocational Agri- culture N=8	
	Number	%	Number	%
Others	-	0	-	0

With a coeducational class there could be problems with field trips and overnight trips. The data in Table XII indicate that instructors are not experiencing problems, nor are they making changes in this type of activity.

With non-traditional students enrolling in these vocational classes, there are some obvious changes in facilities that need to be made. The data reveal that this problem is being handled in several ways. Fifty percent of the home economics and 58 percent of the vocational agriculture instructors indicated that no facility changes had been made. However, provisions have been made to meet the needs of the non-traditional student. To accommodate coeducation, 16 percent of the shops added restrooms.

TABLE XIII
CHANGES BEING MADE IN FACILITIES

Chagnes	Home Economics		Vocational Agri- culture	
	Number	%	Number	%
No changes, but made provisions	8	50	14	58
Added restroom	-	0	4	16
Added dressing room	-	0	1	4
Added different equipment	-	0	-	0
Adjustment of equipment	2	13	-	0
No changes	2	13	11	46
Others	2	13	-	0

An adjustment of equipment was made in 13 percent of the home economics programs, while none were reported in vocational agriculture.

Student Participation

As Hauley (1971) reported, high school girls have the feeling that male classmates disapprove of them showing their intelligence.² Because of this, females might not participate in class discussions and activities. This didn't hold true in Montana, as the data in Table XIV show that 94 percent of the females and 92 percent of the males participated in home economics class discussions. In vocational agriculture, 94 percent of the females and 98 percent of the males participated.

TABLE XIV

DO COEDUCATIONAL STUDENTS PARTICIPATE IN CLASS DISCUSSIONS?

Responses	Home Economics				Vocational Agriculture			
	Females	%	Males	%	Females	%	Males	%
Yes	48	94	34	92	45	94	47	98
No	3	6	3	8	3	6	1	2

With this high percentage of student participation there must be a number of reasons why they take part in class discussions. The data in Table XV show this to be true.

In home economics, the principle reasons for participating were; to seek answers, to express themselves, to learn, to obtain a good grade and because it was expected of them by the teachers. The same reasons were given by vocational agriculture students.

The data reveal that the non-traditional student has a tendency to show others that they want to learn the traditional subject. Fourteen percent of the male home economics students, as compared to 8 percent of the females, indicated that they participated to show others they wanted to learn. In vocational agriculture, 31 percent of the females wanted to learn, as compared to 19 percent of the males.

TABLE XV

NATURE OF PARTICIPATION IN CLASS DISCUSSION

Reasons	Home Economics				Vocational Agri- culture			
	Females	%	Males	%	Females	%	Males	%
For Participating								
To seek answers	37	73	28	76	42	88	40	83
To express themselves	37	73	24	65	37	77	26	54
To learn	42	82	20	54	41	85	36	75
To get a good grade	16	31	15	41	25	52	18	38
Expected to by teacher	10	20	10	27	16	33	12	25
To show, I want to learn	4	8	5	14	15	31	9	19
Lack background knowledge	5	10	7	14	12	25	11	23
To get attention of others	-	0	1	3	1	2	-	0
To show off	-	0	-	0	1	2	-	0
Others	2	4	1	3	3	6	1	2
Not Participating								
	N=3		N=3		N=3		N=3	
Shyness	1	33	1	33	2	66	-	0
Feel threatened by opposite sex	1	33	-	0	-	0	-	0
Others dominate discussion	-	0	-	0	1	33	1	100
Others	2	66	2	66	-	0	-	0

Shyness, as the data in Table XV indicate, is one of the reasons students don't participate in class discussion. A variety of responses

were given as other reasons for not participating. They include such things as; too lazy, teacher doesn't have discussions, and with individualized lessons there is no discussion.

The data reveal in Table XVI, that participation in a vocational class that was not coeducational would not change to any extent. The change would lead to 20 percent of the females and 11 percent of the males participating a little more in home economics. Only 10 percent of the females and 6 percent of the males would participate a little more in vocational agriculture.

TABLE XVI
PARTICIPATION IN A NON COEDUCATIONAL CLASS

Level	Home Economics				Vocational Agriculture			
	Females	%	Males	%	Females	%	Males	%
The same	39	78	31	84	37	77	41	85
A little more	10	20	4	11	5	10	3	6
A lot more	1	2	-	0	1	2	3	6
A little less	-	0	2	5	3	6	-	0
A lot less	-	0	-	0	3	6	1	2

The role of the traditional student has been established due to past history. In what areas do non-traditional student compete against traditional, and what affect does this have on how they perceive one another? Eighty-eight percent of the traditional home economics and 67 percent of vocational agricultural students indicated that they don't

try to compete, they just do the best they can.

TABLE VII
COMPETITION AGAINST THE OPPOSITE SEX

Reasons	Home Economics				Vocational Agriculture			
	Females	%	Males	%	Females	%	Males	%
Better grade than they get	1	2	4	11	19	40	10	21
Attention from teacher	-	0	-	0	3	6	-	0
Offices in FFA or FHA	1	2	9	24	22	46	11	23
Place on team or event	1	2	4	11	28	58	11	23
To show I am just as good as they are	3	6	7	19	27	56	9	19
Don't compete, do my best	45	88	23	62	21	44	32	67
Others	1	2	3	8	1	2	-	0

As the data in Table XVII show, the non-traditional student is more competitive for grades, FFA or FHA offices, a place on a judging team, or the opportunity to attend an event. A higher percentage of the non-traditional students are trying to show that they are just as good as the traditional student. Competition does not appear to have a significant effect on how students feel they fit into the traditional class.

Ninety-six percent of the females and 86 percent of the males felt accepted in home economics as revealed by the data in Table XVIII. The same is true in agriculture as 94 percent of the females and 92 percent

of the males felt accepted by their classmates in coeducational classes.

TABLE XVIII
FEELINGS TOWARD CLASSMATES IN COEDUCATIONAL CLASSES

Feelings by	Home Economics				Vocational Agriculture			
	Females	%	Males	%	Females	%	Males	%
Accepted	49	96	31	86	45	94	44	92
Tolerated	2	4	3	9	2	4	3	6
Rejected	-	0	-	0	-	0	-	0
Others	-	0	1	3	1	2	1	2

The result of the survey data in Table XIX show that 51 percent of the females and 46 percent of the males liked all their home economics classmates. Forty-one percent of the females and 43 percent of the males liked most of the home economics students. Indicated they disliked a few or were tolerant of their classmates were 8 home economics students and 8 vocational agriculture students.

TABLE XIX
RESPONDENTS FEELINGS TOWARD CLASSMATES

Feelings	Home Economics				Vocational Agriculture			
	Females	%	Males	%	Females	%	Males	%
Like all	26	51	17	46	22	46	21	44
Like most	21	41	16	43	19	40	22	46

TABLE XIX (cont.)

RESPONDENT'S FEELINGS TOWARD CLASSMATES

Feelings	Home Economics				Vocational Agriculture			
	Females	%	Males	%	Females	%	Males	%
Dislike all	-	0	-	0	-	0	-	0
Dislike most	-	0	-	0	-	0	-	0
Like few	-	0	1	3	1	2	-	0
Dislike few	2	4	3	8	3	6	3	6
No feelings either way	-	0	1	3	5	10	2	4
Tolerate them	2	4	1	3	1	2	1	2
Others	-	0	-	0	1	2	-	0

Forty-six percent of the females and 44 percent of the males liked all of their vocational agriculture classmates as indicated by data shown in Table XIX. Forty percent of the females and 46 percent of the males liked most of their classmates. Indicating that they had no feelings one way or another was 10 percent of the female agriculture students.

With a positive attitude toward their classmates, the question arises, will their attitude effect their performance? The data in Table XX reveal that 42 percent, 23 percent yes and 19 percent maybe, of the females in vocational agriculture felt that their attitude was effecting their performance. This compares with 2 percent yes and 15

percent maybe by the males in vocational agriculture.

TABLE XX

IS ATTITUDE TOWARD OPPOSITE SEX EFFECTING PERFORMANCE?

Effecting	Home Economics				Vocational Agriculture			
	Females	%	Males	%	Females	%	Males	%
Yes	1	2	3	8	11	23	1	2
Maybe	9	18	5	14	9	19	7	15
No	41	80	29	78	28	58	40	83

The data in Table XX show that 8 percent of the non-traditional home economics students performance was definitely effected and 14 percent possibly was effected. Only 2 percent of the traditional students indicated yes and 18 percent indicated maybe their attitude was effecting their performance.

The question arises, "Does attitude have a negative or positive affect upon performance?" Thirty-six percent of the females in home economics were not trying as hard as they should because of their attitude toward the male population in the class. Twenty-seven percent of the females and 25 percent of the males said they didn't feel comfortable around the opposite sex and reduced their participation.

It is interested to note from the data presented in Table XXI that while the females reported negative effects on performance, the males reported a more positive effect. Thirty-eight percent of the males were

studying harder to show their ability and to earn a place in class.

TABLE XXI
ATTITUDE AND ITS EFFECT UPON PERFORMANCE

Effect	Home Economics				Vocational Agriculture			
	N=10		N=8		N=20		N=8	
	Females	%	Males	%	Females	%	Males	%
Not trying as hard as should	4	36	-	0	4	19	3	33
Not comfortable, don't participate	3	27	2	25	1	5	1	11
Studying hard to show my ability	1	9	3	38	7	33	4	44
Studying hard to earn a place in class	3	27	3	38	9	43	1	11

The data in Table XXI reveal that attitude has a different effect upon performance in vocational agriculture. The traditional vocational agriculture student was studying harder to show his ability. Of the females who reported that attitude was affecting their performance, 33 percent were trying to show their ability and 43 percent were trying to earn a place in class. The negative effect was that 33 percent of the males and 19 percent of the females were not studying as hard as they should.

With students not studying like they should there is a possibility that an increase in discipline problems might occur. However, this is not the case as 50 percent of the home economics instructors and 92 per-

cent of the vocational agriculture instructors indicated they had experienced no additional discipline problems.

TABLE XXII
FACTORS CAUSING DISCIPLINE PROBLEMS

Factors	Home Economics		Vocational Agriculture	
	No	%	No	%
Attitude of non-traditional	4	50	2	100
Lack of seriousness of non-traditional	6	75	1	50
Difficulty in disciplining non-traditional	4	50	1	50
Think class is easy	6	75	-	0
Difficulty in treating all fairly	1	13	2	100
Others	1	13	-	0

The reasons given by home economics instructors for increase in discipline are; lack of seriousness of the non-traditional student, thinking that the class was going to be easy, student attitude and difficulty in disciplining non-traditional students.

FFA and FHA Participation

One of the objectives of the research was to determine the reason for joining and the level of participation in the FFA or FHA. The data in Table XXIII indicate a variety of reasons for joining FHA. Seventy-three percent of the females wanted to join FHA and 51 percent of the

males indicated they wanted to join. Thirty-three percent of the females and 22 percent of the males felt that by joining they could increase their knowledge and enable them to explore additional educational opportunities. Encouragement to join came from friends and the teacher. The non-traditional home economics student received more encouragement by the teacher to join FHA than did the traditional student.

TABLE XXIII
REASONS FOR JOINING FFA OR FHA

Reasons	FHA				FFA			
	Females	%	Males	%	Females	%	Males	%
Increase interest & knowledge	17	33	8	22	35	73	23	48
Educational opportunities	16	31	9	24	27	56	23	48
Wanted to	37	73	19	51	37	77	26	54
Leadership ability	8	16	8	22	28	58	18	38
Personal	8	16	8	22	24	50	11	23
Encouraged by friend	19	37	16	43	12	25	17	35
Encouraged by teacher	7	14	11	30	10	21	10	21
Part of curriculum	1	2	2	4	3	6	1	2
Others	3	6	1	2	3	6	2	4

More students joined FFA to improve their leadership than joined FHA for the same reason. Seventy-three percent of the females and 48 percent of the males felt they could increase their interest and know-

ledge by joining FFA. Educational opportunities were a factor for 56 percent of the females and 48 percent of the males. The teacher encouraged 21 percent of both genders to join FFA.

FFA is an integral part of the vocational agriculture program yet only 6 percent of the females and 2 percent of the males were of the understanding that membership in the FFA was required as a part of the program.

The information in Table XXIV shows two things are happening in the youth clubs. First, not all students are joining the club the first year of high school. Second, there appears to be a trend which indicates that students drop membership as they advance in school. Seventy-three percent of the freshmen females and 75 percent of the males were in their first year of FFA. Whereas 16 percent of the senior females and 19 percent of the males were in FFA. A similar trend is revealed in FFA. All freshmen in vocational agriculture were FFA members, whereas 82 percent of the senior males and 29 percent of the senior females were FFA members.

One might hypothesize that non-traditional students do not enroll until later in high school. Such a trend might be due to the number of elective courses that are available to upper classmen.

TABLE XXIV

YEAR IN SCHOOL AND MEMBERSHIP IN YOUTH ACTIVITY

Years	FHA				FFA			
	Females	%	Males	%	Females	%	Males	%
Freshman								
1	8	73	3	75	11	100	15	100
2	3	27	1	25	-	0	-	0
3	-	0	-	0	-	0	-	0
4	-	0	-	0	-	0	-	0
Sophomore								
1	7	64	8	80	2	18	2	17
2	3	27	2	20	9	82	10	83
3	1	9	-	0	-	0	-	0
4	-	0	-	0	-	0	-	0
Junior								
1	1	10	1	13	1	8	1	10
2	3	30	4	57	4	33	1	10
3	6	60	2	29	7	58	8	80
4	-	0	-	0	-	0	-	0
Senior								
1	2	11	8	50	1	7	-	0
2	6	32	5	31	4	29	-	0
3	8	42	-	0	5	36	2	18
4	3	16	3	19	4	29	9	82

The data in Table XXV indicate that male students are not as active in FFA and FHA. In FHA, 49 percent of the males participated in one or two activities while only 8 percent indicated they participated in over 8 activities. In FFA, 35 percent of the males participated in one or two activities and 8 percent were involved in over 8 activities. Females continue to be more active at the district and state level of the organizations.

TABLE XXV
LEVEL OF PARTICIPATION IN YOUTH ACTIVITIES
ASSOCIATED WITH VOCATIONAL PROGRAMS

Number	FHA				FFA			
	Females	%	Males	%	Females	%	Males	%
Local Activities								
1-2	11	22	18	49	6	13	17	35
3-4	9	18	6	16	12	25	13	27
5-6	4	8	5	22	10	21	4	8
7-8	5	10	2	5	7	15	4	8
Over 8	15	29	3	8	7	15	4	8
District or State Activities								
1-2	23	45	23	62	14	29	11	23
3-4	9	18	3	8	16	33	11	23
5-6	4	8	3	8	7	15	6	13
7-8	2	4	-	0	6	13	3	6
Over 8	6	12	2	5	4	8	2	4

Females show a different level of participation in FHA. They reported that 22 percent took part in 1 or 2 activities at the local level, while 29 percent had participated in over 8 local activities. The females in FFA were more active at the local level. The females in both organizations were more active at the district and state level as shown by the data in Table XXV. The data in Table XXVI show that 41 percent of the males in FHA classified themselves as active members, 16 percent said they were very active, 16 percent were not active, and 14 percent belonged but didn't participate. For the females in FHA, 31 percent were active, 27 percent were very active, 18 percent not very active and 16 percent belonged but didn't participate.

TABLE XXVI
PARTICIPATION IN YOUTH ACTIVITIES

Level	FHA				FFA			
	Females	%	Males	%	Females	%	Males	%
Active	16	31	15	41	25	52	31	65
Very active	14	27	6	16	15	31	10	21
Not very active	9	18	6	16	8	16	5	10
Don't participate	8	16	5	14	-	0	2	6

It is interesting to note that all females who belonged to FFA participated in the club activities. Fifty-two percent said they were active, 31 percent were very active and 16 percent were not very active.

For the traditional student, 65 percent were active, 21 percent very active, 10 percent not very active and 6 percent belonged but didn't participate.

As shown previously, girls tend to be more active, consequently it could be hypothesized that they would play a greater leadership role in their organizations. The students were asked if they had participated as an officer in the youth clubs. Both genders in home economics indicated that 33 percent had held an FHA office. For FFA, 54 percent of the females had held an office and 48 percent of the males were officers.

TABLE XXVII
LEADERSHIP BY STUDENTS

Office	FHA				FFA			
	N=17		N=12		N=26		N=23	
	Females	%	Males	%	Females	%	Males	%
President	5	29	3	25	4	15	6	26
Vice-President	3	18	4	33	2	8	5	22
Secretary	3	18	2	17	12	46	4	17
Reporter	4	24	1	8	6	23	4	17
Treasurer	4	24	3	25	2	8	2	9
Sentinel	-	0	-	0	-	0	9	39
Historian	2	12	1	8	-	0	-	0
Parliamentarian	2	12	5	42	4	15	1	4

TABLE XXVII (cont.)
LEADERSHIP BY STUDENTS

Office	FHA				FFA			
	N=17		N=12		N=26		N=23	
	Females	%	Males	%	Females	%	Males	%
Song Leader	3	18	1	8	-	0	-	0
District or State	3	18	4	33	2	8	2	9
Others	1	6	-	0	1	4	3	13

The data in Table XXVII show that for the most part an equal percentage of males and females are serving as specific officers. The major areas of imbalance occurred as reporters and parliamentarians in FHA and secretary and sentinel in the FFA.

The leadership by the students is carried beyond the local level. Eighteen percent of the females and 33 percent of the males in FHA indicated that they were an officer at the district or state level. In FFA, 8 percent of the females and 9 percent of the males were officers at the district or state level.

Summary of Data

The traditional vocational class is becoming coeducational and its youth organizations have non-traditional members who are active and fulfilling leadership roles. A personal interest in the vocational program and its club is a major selection factor for all students. A few of the students are experiencing opposition from forces outside the school.

However, once they are in the program they are fitting into the program and in general are not causing any great problem. Of concern, is the large percentage of females in vocational agriculture who feel that their attitude toward the opposite sex is affecting their performance in class.

Coeducation is nothing new to most of the vocational instructors in Montana. A large percentage were teaching coeducational vocational classes before the implementation of Title IX. The home economics instructors have made a number of changes in their teaching activities. They also report an increase in discipline problems due to non-traditional students attitude, expectations of the class. On the other hand, vocational agriculture teachers have not made many changes and have experienced little additional discipline problems.

CHAPTER IV

CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS

CONCLUSIONS

Based on previous data, the following conclusions have been formulated:

A. Conclusions in Regard to Enrollment

1. Vocational agriculture and home economics instructors are not giving enough encouragement to students to enroll in their class or become members in youth organizations.
2. Instructors are not encouraging student enrollment.
3. Guidance counselors are not actively encouraging non-traditional students to enroll.
4. Instructors and school personnel are not in opposition to non-traditional student enrollment.
5. In some instances, parents and friends are discouraging students from enrolling in a coeducation vocational class.
6. Student personal interests are fundamental to their selection of a vocational class.
7. Enrollment by the non-traditional student has had no negative effect on the enrollment of the traditional student.
8. Students do not understand that FFA is an integral part of vocational agriculture.

B. Conclusions Regarding FFA and FHA Participation

1. Instructors do not actively encourage membership in FFA or FHA.
2. Students feel that FFA provides a better opportunity to improve

leadership than FHA.

3. The encouragement given by friends caused many students to participate in FHA and FFA.

4. No particular gender dominates the leadership role in FFA or FHA.

5. Females take part in more activities of the youth groups than do males.

C. Conclusions Regarding Student Attitude Toward the Opposite Sex and the Effect Upon Performance and Participation.

1. The attitude of female vocational agriculture students has a more positive than negative effect upon their performance.

2. The attitude of female home economics students has a more negative than positive effect upon performance.

3. The attitude of males in home economics and vocational agriculture has a positive effect upon performance.

4. Coeducation has little effect upon participation in class discussion.

D. Conclusions Regarding Changes in Instruction

1. Home economics instructors have made numerous changes in teaching and evaluation methods.

2. Vocational agriculture teachers have made fewer changes in their teaching and evaluation.

3. Individualized instruction is increasing in home economics.

4. Discipline problems have increased in home economics and have not changed in vocational agriculture.

5. Teachers are making an effort to make their instruction anti-sexist.

E. Conclusions Regarding Changes in Facilities

1. Schools are slow in adding restrooms or dressing rooms for non-traditional students.

2. Provisions are being made to meet the facility needs of non-traditional students.

3. Present equipment in vocational agriculture doesn't need adjustment to meet the needs of females.

IMPLICATIONS

The findings of this study reveal the following implications:

1. Vocational agriculture instructors are not relaying to the public and incoming students that FFA is an integral part of vocational agriculture.

2. Membership in FFA and FHA decrease as students advance in high school.

3. Instructors need to spend more time promoting FFA or FHA to their students.

4. Title IX has had little effect upon the number of programs that are coeducational.

5. Guidance counselors need to become more aware of the benefits

of vocational education.

6. There will always be a percentage of students who won't participate in class or organization activities.

7. Non-traditional students will be more competitive in class and in FFA or FHA.

RECOMMENDATIONS FOR FURTHER STUDY

The following recommendations were revealed in this study:

1. A study should be conducted to determine if FFA or FHA membership is decreasing as students advance and the reasons for dropping membership. The study should cover a four year period so that individuals can be identified and followed all the way through high school. This study should reveal the reasons for maintaining or dropping membership in the youth clubs. The trend that was identified by this study came about by comparing freshman membership against membership of seniors.

2. A study should be conducted to identify areas of educational difficulties encountered by non-traditional students. The research reveals there are certain subject areas in vocational agriculture that are difficult for the non-traditional student. These areas should be identified and methods of instruction developed which will aid in eliminating educational conflict.

3. An indepth study of student attitude and its effect on performance should be conducted. The attitude of students toward the opposite

sex has an influence upon their class performance. The areas of conflict should be identified and methods developed that will aid in reducing the negative effect.

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APPENDIX

A



DEPARTMENT OF AGRICULTURAL & INDUSTRIAL EDUCATION

COLLEGE OF AGRICULTURE

MONTANA STATE UNIVERSITY, BOZEMAN 59717

Dear

In an effort to provide equal opportunity for all students, your school has allowed male students to enroll in the traditional female Home Economics program. For this you and your school are to be commended.

In an attempt to determine if educational problems have arisen because of co-education, I am conducting a research project to identify these problems. The data will be summarized, published and used to help train prospective vocational teachers. The project is being sponsored by the Department of Vocational and Occupational Services, Office of Public Instruction, Helena, Montana.

I would like your permission to use your Home Economics Teacher and some of her students to determine if educational problems are occurring and what changes have been made as a result of co-education. The information will be kept confidential. No individual names or school names will appear in the final report.

Enclosed is a stamped self-addressed envelope for your reply.

Thank you for your cooperation.

Sincerely,

A handwritten signature in cursive script, appearing to read "Van Shelhamer".

Van Shelhamer, Instructor
Agricultural & Industrial Education





DEPARTMENT OF AGRICULTURAL & INDUSTRIAL EDUCATION

COLLEGE OF AGRICULTURE

MONTANA STATE UNIVERSITY. BOZEMAN 59717

Dear

In an effort to provide equal opportunities for all students, your school has allowed female students to enroll in the traditional male vocational agriculture program. For this you and your school are to be commended.

In an attempt to determine if educational problems have arisen because of co-education, I am conducting a research project to identify these problems. The data will be summarized, published and used to help train vocational teachers. The project is being sponsored by the Department of Vocational and Occupational Services, Office of Public Instruction, Helena, Montana.

I would like your permission to use your vocational agriculture teacher and some of his students to determine if educational problems are occurring and what changes have been made as a result of co-education. The information will be kept confidential. No individual names or schools will appear in the final paper.

Sincerely,

A handwritten signature in cursive script, appearing to read "Van Shelhamer".

Van Shelhamer, Instructor
Agricultural & Industrial Education





DEPARTMENT OF AGRICULTURAL & INDUSTRIAL EDUCATION

COLLEGE OF AGRICULTURE

MONTANA STATE UNIVERSITY, BOZEMAN 59717

Dear

In an effort to provide equal opportunities for all students, your school has allowed female students to enroll in the traditional male vocational agriculture program and male students to enroll in the traditional female home economics program. For this you and your school are to be commended.

In an attempt to determine if educational problems have arisen because of co-education, I am conducting a research project to identify these problems. The data will be summarized, published and used to help train prospective vocational teachers. The project is being sponsored by the Department of Vocational And Occupational Services, Office of Public Instruction, Helena, Montana.

I would like your permission to use your Vocational Agriculture teacher and some of his students as well as your Home Economic teacher and some of her students to determine if educational problems are occurring and what changes have been made as a result of co-education. The information will be kept confidential. No individual names or school will appear in the final paper.

Enclosed is a stamped self-addressed envelope for your reply.

Thank you for your cooperation.

Sincerely,

A handwritten signature in cursive script, reading "Van Shelhamer".

Van Shelhamer, Instructor
Agricultural & Industrial Education



APPENDIX

B



DEPARTMENT OF AGRICULTURAL & INDUSTRIAL EDUCATION

COLLEGE OF AGRICULTURE

MONTANA STATE UNIVERSITY BOZEMAN 59717

April 6, 1979

Dear

In an effort to provide equal opportunity for all students, you have allowed male students to enroll in your traditional female home economics program. For this, you and your school are to be commended.

In an attempt to determine if educational problems have arisen because of co-education, I am conducting a research project to identify these problems. The data will be summarized, published, and used to help train prospective vocational teachers. The project is being sponsored by the Department of Vocational and Occupational Services, Office of Public Instruction, Helena, Montana.

Would you please take about ten minutes out of your busy schedule today and complete the enclosed teacher questionnaire. Would you please allow the students, whose names appear on the enclosed page, ten minutes of class time to complete the enclosed student questionnaire.

Please return the questionnaires as soon as possible in the enclosed stamped self-addressed envelope.

Thank you for your valuable time and cooperation. Please relay my thanks to the students.

Sincerely,

A handwritten signature in cursive script, appearing to read "Van Shelhamer".

Van Shelhamer, Instructor
Agricultural & Industrial Education





DEPARTMENT OF AGRICULTURAL & INDUSTRIAL EDUCATION

COLLEGE OF AGRICULTURE

MONTANA STATE UNIVERSITY BOZEMAN 59717

April 6, 1979

Dear

In an effort to provide equal opportunity for all students, you have allowed female students to enroll in your traditional male vocational agriculture program. For this, you and your school are to be commended.

In an attempt to determine if educational problems have arisen because of co-education, I am conducting a research project to identify these problems. The data will be summarized, published, and used to help train prospective vocational teachers. The project is being sponsored by the Department of Vocational and Occupational Services, Office of Public Instruction, Helena, Montana.

Would you please take about ten minutes out of your busy schedule today and complete the enclosed teacher questionnaire. Would you please allow the students, who's names appear on the enclosed page, ten minutes of class time to complete the enclosed student questionnaire.

Please return the questionnaires as soon as possible in the enclosed stamped self-addressed envelope.

Thank you for your valuable time and cooperation. Please relay my thanks to the students.

Sincerely,

A handwritten signature in cursive script, reading "Van Shelhamer".

Van Shelhamer, Instructor
Agricultural & Industrial Education



APPENDIX

C



DEPARTMENT OF AGRICULTURAL & INDUSTRIAL EDUCATION

COLLEGE OF AGRICULTURE

MONTANA STATE UNIVERSITY, BOZEMAN 59717

May 10, 1979

Dear

As school draws to a close we all find ourselves busier than we should be. We find it difficult to meet those obligations which are essential and required. Sometimes our best intentions go by the wayside because of lack of time.

About three weeks ago you should have received, I hope, a group of questionnaires to be completed by yourself and some of your students. As of today I haven't received your reply. Perhaps you have completed it or it may have gotten buried on your desk, any number of things could have happened.

In any event, would you try to find ten minutes somewhere in your and your student's busy schedule to complete the questionnaire. About half of them have been returned, but I would like to get them all back.

Thank you for your time and cooperation.

Very sincerely yours,

A handwritten signature in cursive script, appearing to read "Van Shelhamer".

Van Shelhamer, Instructor
Agricultural and Industrial Education

VS/jlr

APPENDIX

D

TEACHER QUESTIONNAIRE

NAME _____ SCHOOL _____

SEX _____ SCHOOL TELEPHONE NUMBER _____ HOME TELEPHONE NUMBER _____

CLASSES THAT YOU TEACH _____

Please answer the following questions by checking the appropriate box or by writing in your comments where space is provided.

1. How many years have you been teaching in your present position?
☐ 1-3 years ☐ 4-6 years ☐ 7-10 years ☐ 11-15 years
2. How many years have you been teaching co-educational vocational classes at your present place of employment?
☐ 1-2 years ☐ 3-4 years ☐ 5-6 years ☐ 7 or more
3. Please check the appropriate response to indicate if enrollment by traditional students since the start of co-education has:
☐ Increased ☐ remained constant ☐ decreased
4. Please indicate any activities you have eliminated because of co-education.
NOTE: Part A to be completed by Vocational Agriculture teachers. Part B to be completed by Home Economics teachers.

PART A

- ☐ reduced the amount of time spent on reproduction in animals
- ☐ reduced the depth of study in reproduction
- ☐ eliminated a shop activity because of physical strength of female students
- ☐ allowed students to by-pass certain activities because of gender
- ☐ eliminated certain lessons to prevent embarrassment
- ☐ have developed individualized lessons so students can work around areas that create embarrassment or are physically impossible.
- ☐ have not eliminated anything
- ☐ others (please specify)

PART B

- ☐ reduced the amount of time spent on human reproduction
- ☐ reduced the depth of study in human reproduction
- ☐ reduced the depth of study in child care
- ☐ eliminated classes on feminine hygiene
- ☐ eliminated laboratory activities because of physical strength and size of male students.
- ☐ eliminated certain lessons to prevent embarrassment
- ☐ allowed students to by-pass certain activities because of gender
- ☐ have developed individualized lessons so students can work around areas that would create embarrassment or are physically impossible.
- ☐ have not eliminated anything.
- ☐ other (please specify).

5. Have you made changes in your teaching methods because of co-education
☐ Yes ☐ No If yes, complete parts A-D. If no, go to question 6.
- A. I have attempted to make my instructional materials anti-sexist by:
- ☐ preparing bulletin boards containing examples of both girls & boys in activities.
 - ☐ using examples of both girls & boys in my teaching activities.
 - ☐ changing textbooks to eliminate sex stereotyping.
 - ☐ discussing career opportunities for both girls and boys.
 - ☐ eliminating teaching material that was sex biased.
 - ☐ changing the local FFA or FHA constitution to allow both girls & boys in the organization.
 - ☐ others (please specify).
- B. I have changed the language used in some lessons in order to:
- ☐ eliminate the use of certain terms that may cause embarrassment.
 - ☐ use the same terms but spend additional time on their meaning.
 - ☐ develop and include in lessons new terms that are not understood by non-traditional students.
 - ☐ no changes have been made.
 - ☐ others (please specify)
- C. I have changed my grading system by:
- ☐ revised performance standards to accommodate co-education.
 - ☐ individualized the grading system to accommodate co-education.
 - ☐ lowered performance standards to accommodate co-education.
 - ☐ changing my standards to allow for the physical difference between the two genders.
 - ☐ no changes have been made.
 - ☐ others (please specify).
- D. I have eliminated field trips because of:
- ☐ concern with overnight stays and problems that might arise.
 - ☐ difficulty in getting additional chaperone
 - ☐ previous field trips were not suited for co-education.
 - ☐ difficulty in getting students released from school because of conflicts in getting both girls and boys released.
 - ☐ no changes have been made.
 - ☐ others (please specify).

6. I have experienced an increase in discipline problems since my classes became co-education. ☐ Yes ☐ No If yes, please check appropriate reason:
- ☐ attitude of non-traditional students.
 - ☐ lack of seriousness of non-traditional students.
 - ☐ difficulty in disciplining non-traditional students.
 - ☐ students sign up because they think the class is easy.
 - ☐ difficulty in treating all students fairly.
 - ☐ have had no additional discipline problems because of co-education.
 - ☐ others (please specify)
7. Please indicate those changes that have been made in facilities because of co-education.
- ☐ addition of restroom.
 - ☐ addition of a dressing room.
 - ☐ have not made any changes in restroom or dressing rooms, but have made provisions to meet the needs of students in this area.
 - ☐ addition of different equipment (please specify what type of equipment).
 - ☐ adjustments have been made to compensate for the difference in physical characteristics of the non-traditional student (please specify what the adjustments were).
 - ☐ no changes have been made.
 - ☐ others (please specify).
8. Please identify other problems you have encountered or changes you have made because of co-education in your classes. Please be specific.

APPENDIX

E

STUDENT QUESTIONNAIRE

NAME _____ SCHOOL _____
HOME TELEPHONE NUMBER _____ YEAR IN SCHOOL _____ SEX _____
DEPARTMENT (Vo-Ag or Home Economics) _____

Please answer the following questions by checking the appropriate box or by writing in your comments where space is provided.

1. Are you presently in a vocational class that is co-educational? ☐ Yes ☐ No
Have you in the past been in a co-educational vocational class? ☐ Yes ☐ No
2. Please check the appropriate boxes that indicate major factors causing you to enroll in this vocational class.
 - ☐ personal interest in the program
 - ☐ parents wanted me to
 - ☐ wanted to be with my friends
 - ☐ wanted to be with the opposite sex
 - ☐ was encouraged by the teacher
 - ☐ was encouraged by the guidance counselor
 - ☐ was encouraged by the principal
 - ☐ an upper classman encouraged my enrollment
 - ☐ to prepare for an entry level job in a career of my choice
 - ☐ interest in FFA or FHA
 - ☐ other (please specify)
3. Please check the appropriate boxes to indicate if anyone opposed your enrolling in vo-ag or home economics.
 - ☐ parents
 - ☐ friends
 - ☐ teacher
 - ☐ guidance counselor
 - ☐ members of the vocational class
 - ☐ the opposite sex
 - ☐ no opposition
 - ☐ other (please specify)
4. Do you participate in class discussions? ☐ Yes ☐ No If yes, please check the appropriate box in Part A. If no please check the appropriate box in Part B.
PART A - Reasons for participating
 - ☐ to get a good grade
 - ☐ because it is expected of me by the teacher
 - ☐ to show other students I want to learn
 - ☐ because I don't have the background in the subject
 - ☐ to seek answers to questions that I don't understand

4. Part A (cont.)

- ☐ to get the attention of the other students
- ☐ to show off for students of the opposite sex
- ☐ to learn
- ☐ to express my thoughts
- ☐ other (please specify)

PART B - Reasons for not participating

- ☐ teachers doesn't allow for student discussion
- ☐ I feel threatened by students of the opposite sex
- ☐ other students dominate the discussion and I am not given an opportunity to participate
- ☐ I don't participate because I am a shy individual
- ☐ other (please specify)

5. Do you try to compete against the opposite sex for:

- ☐ a better grade than they get
- ☐ attention from the teacher
- ☐ offices in the vocational club (FFA or FHA)
- ☐ a place on a competitive team or event
- ☐ try to show the opposite sex that I am just as good a student as they are
- ☐ don't try to compete, just do my best
- ☐ other (please specify)

6. If you were in a class where all students were the same sex, would you participate in the class? ☐ Yes ☐ No If yes, how much?

- ☐ a lot more ☐ a lot less ☐ the same
- ☐ a little more ☐ a little less

7. How well do you feel you are accepted in the class by your classmates.

- ☐ accepted ☐ tolerated ☐ rejected ☐ other (please specify)

8. How do you feel toward your fellow classmates in this class?

- ☐ like all of them ☐ dislike a few of them
- ☐ dislike all of them ☐ no personal feelings one way or another
- ☐ like most of them ☐ tolerate them as classmates
- ☐ dislike most of them ☐ other (please specify)
- ☐ like a few of them

9. Do you feel your attitude toward students of the opposite sex is effecting your chances of success in your vocational classes or career? ☐ Yes ☐ Maybe ☐ No If yes or maybe, how is it effecting your chances?

- ☐ I am not trying as hard as I should
- ☐ I don't feel comfortable around them, consequently I don't participate like I should

9. (Cont.)

- ☐ I am studying harder because I want to show them I am just as capable as they are.
- ☐ I am studying harder because I want to show them that there is a place for me in this vocational class.
- ☐ other (please specify)

10. The primary reason for joining FFA or FHA was.

- ☐ my parents wanted me to
- ☐ encouraged to join by a friend
- ☐ encouraged to join by the teacher
- ☐ personal reasons
- ☐ was understood that membership was part of the curriculum and that it was essential that I join.
- ☐ to improve my leadership ability
- ☐ I wanted to
- ☐ it provides a method by which I can increase my general interest and knowledge.
- ☐ it provides additional educational opportunities
- ☐ other (please specify)

11. The number of years I have been involved in FFA or FHA.

- ☐ one or less ☐ two ☐ three ☐ four

12. Please check the number of local FFA or FHA committees you have served on.

- ☐ 1-2 ☐ 3-4 ☐ 5-6 ☐ 7-8 ☐ over 8

13. Please check the number of district or state contests or events you have attended or participated in since you joined FFA or FHA.

- ☐ 1-2 ☐ 3-4 ☐ 5-6 ☐ 7-8 ☐ over 8

14. Have you held an FFA or FHA office since joining? ☐ Yes ☐ No If yes, check the office(s) you now hold or have held.

- | | |
|---|---|
| ☐ President | ☐ Sentinel |
| ☐ Vice-President | ☐ Historian |
| ☐ Secretary | ☐ Parliamentarian |
| ☐ Reporter | ☐ Song Leader |
| ☐ Treasurer | ☐ Other (please specify) |

15. I have held an FFA or FHA office above the local level. ☐ Yes ☐ No If yes please list the office(s) and the level.

16. My level of participation in FFA or FHA can be described as:

- ☐ a very active FFA or FHA member ☐ not a very active FFA or FHA member
- ☐ an active FFA or FHA member ☐ belong but not a participating member

17. Are there any other areas of student concern that you have encountered because of being involved in a vocational co-educational class. If so, please specify.