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Funds alloted from the Vocational Education Act of 1963, Public Law 88-210, opened up an entirely new dimension in vocational agriculture programs throughout the nation.

The new dimension is an amendment to the period beginning with the Smith-Hughes Act in 1917. Up to the time of the Vocational Education Act of 1963, funds for coordination and supervision of agriculture employment were usually restricted to supervised farming programs. Section 10 of the Vocational Education Act of 1963 implies that any monies alloted or apportioned under the act for agriculture may be used in an occupation involving the knowledge and skills in agriculture subjects.

The purpose of this study was to examine high school vocational agriculture departments in Oregon having off-farm work experience programs. The main areas of concern

in this study were the number of departments and students, instructional programs, student placement and selection, training agreements and their inter-relationships contributing to the success of these programs.

A review of related literature indicated that the recognition of the need for training in off-farm agricultural occupations, as expressed in the Vocational Education Act of 1963, has resulted in the extension of supervised farming projects to include the placement of students in agricultural businesses and industries. As the number of programs in the high school designed to offer training in off-farm agricultural occupations increases, the problems associated with providing adequate occupational experience is also likely to increase. The related literature also revealed that many authors were concerned about the same areas as this study covers.

The study revealed that a majority of the secondary schools with vocational agriculture programs were participating in off-farm work experience programs. Those schools responding had a total of 245 students cooperating in their work experience programs and that the students were successfully working in many varied jobs related to agriculture.

The questionnaire, substantiated by the personal interviews revealed intense enthusiasm by the schools now

having programs, and their desire to improve the one they now have in operation. The survey also indicated that a continuous effort must be made to revise and expand on present programs and develop new ones in order to meet the growing needs of agricultural business and industry.

A STUDY OF OFF-FARM AGRICULTURAL WORK EXPERIENCE PROGRAMS IN OREGON HIGH SCHOOLS

by

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A STUDY OF OFF-FARM AGRICULTURAL WORK EXPERIENCE PROGRAMS IN OREGON HIGH SCHOOLS

CHAPTER I

INTRODUCTION

Off-farm occupations, such as those in marketing agricultural products, producing farm supplies, processing farm products, and servicing the agricultural industry, in addition to production farming, comprise a vast work force and occupational cluster. Other off-farm occupations requiring knowledge and skill in agricultural subjects are those concerned with agricultural research and agricultural education.

Individuals employed in farming and in agricultural businesses today are involved in a more complex and demanding kind of agriculture than was the case in previous years. Modern machines and practices have enabled the farmer to increase total farm production by 50 percent since 1940 and reduce the number of farmers and farm workers by 30 percent (35, p. 1). With this increase in production and greater production goals, a large number of better trained workers is needed in the processing, distribution and servicing segments of agriculture. Realizing that agriculture is essential to the economic strength of our nation, we must further recognize this expanding area of

off-farm agricultural occupations.

Further evidence of the importance of this training is seen in the Vocational Education Act of 1963 (PL 88-210). This act, coupled with the Smith-Hughes and George-Barden legislation, provides in Oregon (1966) two and one-half million dollars annually; part of which may be used for students in work experience programs.

Labor statistics show that the number of persons needed in productive agriculture is decreasing, the number of trained workers in off-farm agriculture businesses is increasing (13, p. 102). A new approach to work experience programs for vocational agricultural students is not only urgent but essential.

As the result of a review of activities in federally aided programs administered by the United States Office of Education, Congress has given to vocational education the responsibility for providing training programs for those who have entered or are preparing to enter an occupation in the agricultural field (49, p. 13). Off-farm agricultural work experience programs are a new concept of agricultural education and with this new concept will come new methods of instruction.

Work experience in off-farm agriculture is but one aspect of work experience attempting to satisfy the increasing demand for skilled workers.

Statement of the Problem

The increasing enrollment of non-farm students in Oregon vocational agriculture programs has made the development of off-farm work experience programs a necessity. In developing these work experience programs, it is recommended that the schools have instruction related to off-farm work experience opportunities. Criteria should be set up for selection of work stations and placement of students, and a training plan or agreement drawn up that clearly states the educational objectives for the student and outlines the responsibilities of the student, employer, parents and school. The training plan or agreement should also include the legal involvement of all parties concerned.

With one-third of our total labor force engaged in agricultural occupations, our schools face a tremendous challenge in training and supplying the skilled workers needed. Work experience is a necessary condition for individuals to learn skills, knowledge, and attitudes for making a beginning and advance in an occupation.

Vocational agriculture teachers have spent many hours seeking the best methods possible for relating job skills to students. The work experience program has emerged as one of the best teaching methods yet devised. However, a great amount of evaluation, planning, and development of

of new and existing programs must continually take place.

Purpose of the Study

The fundamental purpose of this study is to identify the areas of instruction, placement and agreements that have been the most successful in high school agricultural education programs in Oregon. This will be determined by obtaining the following information:

- Total number of students enrolled in off-farm work experience programs and the number in specific work clusters.
- 2. Pre-employment instruction--its effect upon preparation for work; related classroom instruction--its effectiveness and relevance to education and work.
- 3. The criteria used in selection, placement and matching students with work stations.
- 4. Existing training plans and agreements—their differences and implementations.

Assumptions

The following assumptions are made relative to this study:

 Need exists in Oregon for off-farm agricultural work experience programs to better prepare students

- for the world of work.
- 2. Research in instruction, placement and working agreements will help to improve presently established programs.
- 3. There are many job opportunities in business for persons having an agricultural background and/or training.
- 4. Previous farm experience and/or training in vocational agriculture insures the employability of persons seeking entry into agricultural occupations.
- 5. Vocational agriculture has a responsibility to prepare students for entry into all agricultural occupations.
- 6. Off-farm agricultural work experience can be an asset to the student, employer, school, and community.

Limitations of the Study

The author lists the following limitations as being significant to this study:

 The preliminary survey covered only views of Oregon high school vocational agriculture teachers. Because of a lack of exposure in the field of work experience, the responses from

- some of the teachers could be questioned.
- 2. Primary information was based on data collected by a mailed questionnaire, which made it necessary to limit, condense and consolidate some important questions.
- 3. The amount of data and research in the area of off-farm work experience is limited because work experience in agriculture was not emphasized to a great extent until the Vocational Education Act of 1963.
- 4. The original questionnaire was mailed to vocational agriculture instructors during the latter part of the summer, when many were engaged in county and state fair activities. Most of the follow-up and personal interviews were conducted at the State Fair.

Procedures of the Study

The first step in this study was to review related literature. At the time of writing, the author has not found a similar study in progress, or completed, in the area of instruction, placement or working agreements of students in off-farm work experience in Oregon high schools. However, comparisons have been made with material found from surveys in other states conducted

in/or related to one of the areas.

After reviewing the available literature a preliminary questionnaire was prepared and sent to all Oregon high school vocational agriculture departments presently employing an instructor with tenure of one year or more.

Results are recorded.

Thirty percent of the respondents were selected for personal interview by random sampling. (The table of random numbers was taken from Hirsch, page 98.) A selected number of pertinent questions, formed from results of the preliminary questionnaire, were used as a basis for follow-up questions during the personal interviews.

Definition of Terms

For reasons of clarity the following terms are defined:

1. Advisory committee/advisory council. A group of persons, usually outside the education profession, appointed by the school board for the purpose of offering counsel to the school regarding the vocational program, with particular attention towards keeping the program practical and attuned to community needs. Members are representatives of the local community who are interested in the

- activities with which the program is concerned.
- 2. Agricultural education. Classes organized and conducted in public schools for pupils who wish to secure systematic training for an agricultural occupation. Such instruction is organized on graded levels dealing with exploratory agricultural experiences, principles and practices in farming, agri-business, and technical agricultural occupations with emphasis on supervised participating experiences in each area. Agricultural education is a dynamic year-around program that involves the school and community in work experience, experimentation and discovery.
- 3. Agriculture occupations. Occupations involving agricultural knowledge and skills on a farm or in another business, agency or organization which produces, processes, distributes or services farm products. Workers need competencies in one or more of the primary areas of plant science, soil science, animal science, farm management, agricultural mechanization, and agricultural leadership.
- 4. Individual instruction. Instruction to one or more students engaged in a specific field of offfarm work experience, which can include classroom

- and/or on-the-job instruction.
- 5. Off-farm agriculture. Occupations specifically related to a business which produces, processes, distributes, manufactures or services farm products.
- 6. Pilot programs, pilot projects, study programs.

 Programs established with the Vocational

 Education Act of 1963, with results used as
 foundations for future work experience programs.
- 7. Preparatory curriculum, pre-employment training.

 A program of instruction that includes a planned series of courses to develop information skills, concepts, and attitudes needed before placement of a person as a student-learner.
- 8. Related instruction. Instruction covering two basic needs:
 - a. Basic related instruction--concepts,
 knowledge, attitudes, skills and understanding needed by all the students as
 basic to occupational preparation.
 - b. Specific related instruction--concepts, skills and attitudes needed by the individual student-learner to handle the duties and responsibilities at his training station and to prepare for

advancement toward his career objective.

- 9. Student-learner. A student enrolled in a work experience program for the expressed purpose of preparing for an occupation or an area of occupations. He is considered to be a student in the secondary school and a learner in an occupation in the supervised business laboratory.
- 10. Supervised farming. The on-farm training included in the vocational agriculture curriculum, whereby a student has projects relating to livestock or farm production on his own farm.
- 11. Teacher-coordinator. A vocational agriculture instructor who has the responsibility for teaching the related instruction and for coordinating the work experience.
- 12. Training agreement. A document listing the terms of employment of a trainee in an approved training station.
- 13. Training plan, training outline. A listing of the activities in which the student will be engaged at the training station; and a listing of the information that should be taught in the related class instruction.
- 14. Training station, training center. The agricultural business or firm in which the student

- will work while participating in the work experience program.
- 15. Vocational agriculture. Vocational agriculture was included in the first legislation of vocational education under the Smith-Hughes Act of 1917. The curriculum includes five major subjects: production of livestock and farm crops, marketing of farm products, farm business management, soil management, and improved citizenship and rural leadership. Instruction is carried on in the classroom, the laboratory or shop, and through supervised farm projects for each student. With the legislation of the Vocational Education Act of 1963, off-farm work experience programs were added to the curriculum.
- 16. Vocational education. A term used to designate learning experiences in secondary schools designed to fit persons for gainful and useful employment.
- 17. Work experience. A system whereby students receive their occupational experience under actual on-the-job situations in cooperative arrangement between the school, parents, and the agricultural businesses or industries. Students usually receive both pay and school credit for their work.

CHAPTER II

REVIEW OF LITERATURE

History and Development

Work experience is not new, it dates back to before 2500 B.C., where evidence has been found that the Babylonians advocated apprenticeship programs and skill development. Cayce Scarborough, a well-known editorialist in the field of vocational education, acknowledged this fact,

One of the oldest recognized ways of learning has been work experience. This approach to learning proceeded formal schooling, as we now know it, by thousands of years. Even in the early days of this country, very recent in terms of time span, apprenticeship was a major means of education (46, p. 147).

The Morrill Act, passed by Congress in 1862, stimulated any real start in the launching of colleges and universities offering vocational education. The act provided grants of land to endow, support and maintain state colleges devoted to agricultural and mechanic arts, and to promote the liberal and practical education of the industrial classes in the several pursuits and professions of life.

It was not until the Smith-Hughes Act, however, that vocational agriculture programs were established in secondary schools. This act, officially called the Vocational Education Act of 1917, created a Federal Board

of Vocational Education, providing federal aid for continuing appropriation for vocational education in agriculture, in trades and industry, and in homemaking, and for teacher training in each of these fields. Supervised farming projects for vocational agriculture students were a direct result of this legislation. Students in agricultural education programs were required to engage in a supervised farming project for a minimum of six months each year.

Modern technology since 1917 has improved agricultural production to the extent that American agriculture became faced with the problem of securing a sufficient number of trained people to fill the jobs that were created each year. The need for agricultural workers began changing from onfarm to off-farm in processing, distribution and servicing. In an article based on updating vocational agriculture to meet present and future needs, T. L. Faulkner states:

More agricultural changes and progress have been made during the past 20 years than were made in the previous 200 years (12, p. 84).

Society became aware of the off-farm industry that initiated. It seemed obvious that a program of vocational education designed in 1917 would not meet the needs of the agricultural economy fifty years later.

The Vocational Education Act of 1963 was one of the

answers to the demand for a more technically orientated type of agricultural education, opening a new era in the field of vocational education. This act, acclaimed as one of the most important in the history of vocational education, began the greatest advancement of work experience in off-farm agriculture. By it, Congress enacted legislation designed to (1) extend present programs and develop new programs of vocational education, (2) encourage research and experimentation, and (3) provide work study programs to enable youth to continue vocational education.

Pilot and experimental programs were set up in many states in fiscal 1964 to train agricultural businessmen, horticulturists, and farm equipment mechanics, among others. These programs and their many similar ones result in the development of plans directed toward more effective training for these occupations. Agriculture is more than farming. For several decades many new occupations have been created to serve the broad field of agriculture. Congress has given to vocational education the responsibility for providing training programs for those who have entered or are preparing to enter an occupation in this field. Because of this even more programs must be established to serve the supplies to farmers. Workers involved in grading, marketing, processing, transportation, and distribution must also be trained (49, p. 13).

Training in off-farm agricultural occupations has become an important factor in education's responsibility of helping to prepare students for their entry into a working society. The total education system has changed, as Fuller states:

The three R's have been replaced in today's modern

society by the four C's: (1) communication,

- (2) calculation, (3) critical thinking, and
- (4) career employability (14, p. 167).

Comparison with Supervised Farming

Students that have had very little opportunity to gain skills or experience in on-farm work now have a chance in off-farm occupations. Pearce reported that experience programs were better than supervised farming programs, in that;

Many supervised farming programs, as they exist are inadequate to meet the needs of young people in agricultural programs today. The importance of agricultural training is not decreased by these changes, on the contrary, they indicate that agricultural training is more necessary than ever before. It seems evident that revisions are needed in the present concepts of supervised farming programs (44, p. 60).

Whenever we offer only supervised farming programs to students as their total opportunity for supervised practice in agriculture we are making an assumption that these students have already limited their career to the area of farming. Evidence that this assumption is misleading was found by Hutson, whose summary brought out the following facts:

Reports in Arkansas indicate that about 28 percent of the students in vocational agriculture, who are available for employment after graduation from high school, enter farming, 23 percent enter occupations related to farming, and the remaining 49 percent enter occupations not related to farming (20, p. 208).

Similar reports have indicated comparable results, substantiating the fact that there is a definite need for training in off-farm agriculture careers as well as on-farm and that present vocational agriculture programs must be supplemented by work experience programs for non-farm students.

Williams' (55) survey in Alabama of a vocational agriculture department with 132 students revealed that more than three-fourths listed a city address and most lacked home facilities for conducting the supervised farm programs.

Through the writer's own experience, it was found that many Oregon students enrolled in high school vocational agriculture courses do not have adequate home facilities to justify a supervised farm project.

Allison, a vocational agriculture teacher in North Carolina states,

For the first time in 18 years of teaching vo-ag, we can reach all students enrolled in vocational agriculture. Out of 113 students enrolled in vocational agriculture, we have 55 engaged in work experience away from their homes (3, p. 53).

Above all, vocational agriculture teachers have recognized the increasing need for off-farm work experience and the valuable results.

Additional Benefits

Aside from the economic demand for work experience in the field of agriculture, pilot programs have revealed many additional benefits to the individual student. Some of the major purposes or goals of the work experience programs used by many educational institutions have been listed by Ralph E. Mason and Peter Haines as follows:

- 1. To keep over-age pupils (or under-achievers and potential drop-outs) in school part-time while they obtain needed general education.
- 2. To help pupils and college students to explore the world of work and to assist them in occupational choice-making.
- 3. To help maladjusted pupils with personality and behavior problems.
- 4. To help students earn money who otherwise would need to drop out.
- 5. To provide practice in what has been learned in the classroom and assist in the transition from school to job.
- To develop general and specific occupational skills, attitudes and knowledges (29, p. 46-47).

Although the present generation is able to enjoy many more leisure activities, the work experience program enables some students to earn money who otherwise would need to drop out of school in order to financially aid their families.

Balado believes:

This type of education cannot be valued in dollars and cents. I am of the opinion that in the future when this program gets to operating at an

accelerated pace, it is going to solve some of the problems confronting our youth in high schools today (5, p. 257).

In a Pennsylvania pilot program, it was discovered by Hoover and Weyant (17) that grades improved in other subjects, disciplinary problems were reduced, general attitude toward work improved, vocational agriculture teachers remained in favor of continuing the pilot study, and interest in the project by possible employers improved.

Evaluating these findings in research programs, it seems reasonable to conclude on the basis of a report by Texton R. Miller, that:

The new concept of supervised practice must not only be broad enough to include learning experiences beyond the classroom in all phases in the broad field of agriculture, but it must also provide learning experiences as a guidance function in which the student is helped to make a more realistic career choice. The need is present for students to have the opportunity to gain learning experience to help them in the problem of choosing a career (31, p. 90).

Increasing Enrollment

There has been increased emphasis upon broadening vocational agricultural education to serve the total agricultural industry, throughout the nation. According to a 1966 study by Anderson (4), vocational agriculture teachers from 44 states were conducting work experience programs in off-farm agriculture.

A pilot project conducted by Hoover and Weyant (39)

discovered that approximately 400 vo-ag students in 25 Pennsylvania high schools were introduced to agricultural businesses during the 1964-65 school year and some 130 were placed in agricultural businesses for supervised occupational experience.

A study of 31 off-farm work experience programs conducted by Oen and Bender (38) in Ohio revealed a total of 415 students, or 29 percent of the students enrolled in vocational agriculture, were engaged in off-farm training.

Also, in Ohio, a survey conducted by Weaver (54) of 25,541 high school students was made to determine the practicability of initiating or expanding the vocational course offerings in the high school curriculum. Of the 25,541 students responding to the questionnaires, 19,298 (75.6%) indicated an interest for vocational training as a part of their high school educational program.

A survey in Virginia in 1963 by Wilson and Witten (56), revealed the need for vocational training in off-farm occupations. The need for providing training for workers was supported by the fact that officials of 61 firms surveyed reported they experienced difficulty filling more than one-third of their jobs--the employers also stated that nine tenths of their employees needed training in agriculture (56, p. 54).

A recent University of Wisconsin study by Matteson and

Bjoraker (30) indicates that ten years from now 50 percent more workers will be required to fill the employee needs of the non-farm agricultural businesses surveyed.

A special report from the Agricultural Experiment Station at Oregon State University established the following:

....that food processing provided direct payroll for average annual employment of about 18,000 persons. Much other employment results in the manufacture of packaging materials and in general plant and equipment maintenance and operations. Thousands of jobs are involved, but it is difficult to make an accurate estimate.

Manufacture (in Oregon) of supplies needed in farm production and food processing, handling at wholesale and retail levels, plus performance of services, provided at least 5,000 Oregon jobs.

Of the 26,000 persons employed in transportation in 1963, about 4,000 owed their jobs to the transport of agricultural commodities and supplies needed in farm production.

The Commission of Public Docks, Portland, operates the largest dry cargo port on the west coast. In 1963, 82.5% of all out-bound tonnage consisted of agricultural commodities. It was estimated that 17% of all port tonnage was Oregon-produced farm commodities, providing employment for about 500 persons in 1963 (24, p. 3).

The State Department of Education (41) has enrollments in vocational agriculture for fiscal year 1967 in Oregon high schools at 6,838; with 97 secondary vocational agricultural programs; and 127 vocational agriculture teachers in secondary schools.

The Biennial Report of the State Board of Education (40) for the school years ending June 1965-66 includes a

projected vocational agriculture enrollment for grades 11 and 12 from 1965 to 1975, as indicated in Table 1.

Table 1. Projected vocational agriculture enrollment for grades 11 and 12.

1965	1966	1967	1968	1969	1970**
1,798	1,937	2,076	2,215	2,354	2,493
<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>	
2,586	2,677	2,772	2,865	2,958	,

^{**}Assumed 60 percent of increased potential will be reached by 1970 linear projection

Student Selection

Although the majority of work experience programs do not set limitations or qualifications for entrance, in some areas schools found it necessary to screen and select students wishing to take part in work experience programs.

In the agri-business pilot project conducted in Pennsylvania by Hoover and Weyant, they indicated that:

Students were interviewed to determine interest in this type of training program. Vocational agriculture students who expressed interest were selected on the basis of: at least 16 years of age, completed high school grades 10 or 11, lacked means to enter production agriculture, demonstrated ability to profit from this training (17, p. 55).

The major prerequisite for selection of students in most work experience programs is based on student interest and desire to learn a skill. As expressed by Fitts (13) in a Texas program, students who are willing to work and learn and who can be placed in agricultural businesses suited to their needs and interests are selected.

A program conducted by Williams (55) also indicated that third year vocational agriculture students who have shown an interest and readiness to enter commercial employment are recommended for job placement.

Harold Anderson (4), in setting up guidelines for planning and conducting work experience programs recommends that the school should have a definite plan for screening and selecting students that conforms to local school policy, satisfies cooperating employers, and meets students needs.

Pre-employment Instruction

Off-farm agricultural work experience programs are a new concept of agricultural education and with this new concept will come new methods of instruction. However, pre-employment instruction, including knowledge and skills essential, not only to vocational agriculture, but to any field of employment, is a fundamental prerequisite, and should not be omitted. A suggested course would include: work habits, elements of proper communication, grooming,

interviewing, laws and regulations effecting workers, application letters, social security and income tax.

Pre-employment instruction in some programs studied was not given; however, fundamental procedures in applying for employment was included in most programs. In Hoover's (17) program, the instruction received within the school included job seeking and interviewing information, legal requirements of a job, creating and maintaining good human relations, functions of selling, and a brief review of business English and arithmetic. This was also found in courses of study in non-farm agricultural occupations set up by Harold Binkley, as follows:

Instructional program dealt with class work followed up by supervised practice...the class instruction included, opportunities in agricultural occupations, orientation to the training program, agricultural mathematics, human relations and personality traits, store skills, salesmanship and selling, merchandising feed, seeds and fertilizers, organization of distributive businesses and merchandising agricultural chemicals (6, p. 162).

In Fuller's (14) guidelines for teaching off-farm agricultural occupations it was recommended to develop a course of study which would provide systematic instruction for the knowledges and skills considered essential for employability in off-farm agricultural occupations.

Wilson and Witten attribute the success of their program to the following declaration:

Appropriate directed work experience or supervised

practice will be arranged for each student enrolled. The content of the course is designed to help the student gain the knowledge, skills and attitudes needed for successful entrance into occupations in agriculturally relateddistributive business (56, p. 69).

Achimon (1) states their program in Alabama is geared to the needs and desires of the student, as related to available employment within the area. One of their prerequisites for a vocational program is that a work experience laboratory be available. Land laboratories and simulated facilities for applied instruction was also stressed by Juergenson (22) of the University of California.

Job Placement, Training Plan and Agreement

It is stressed that finding the students' interest in the type of job desired is the most important step in placing a student in a training station. This was brought out in Lancaster's (26) study as possibly the first item in starting a class of boys interested in agricultural occupations.

Oen and Bender (38) included that each student should be critically analyzed for interest and competence in the training desired.

In further support, Hubbell and Blanchard (18) claim in order to place students properly they learned the students interest.

Juergenson (22) reports that the interest, experience,

and opportunity of the student will determine the immediate occupational career choice.

Williams (55) also declares that a concerted effort should be exerted to insure that the interest of both the student and employer are considered when a student is placed for employment.

Consideration of other factors must also be given prior to placing a student. Anderson (4) recommends that a survey of the appropriate businesses and firms in the community should be conducted. Although it was found that some teachers place students according to availability of jobs, the type of occupation ranked high with high school vocational agriculture departments as criteria used in selection of training centers.

Fitts (13) expressed that training centers which are interested, will train the student properly, and will furnish a variety of work experience, are the determining factors of selection.

It is also recommended that written training plans be drawn up prior to the employment period, after placement, which include various activities and expectations.

Oen and Bender (38) indicated in the summary of their report that a major finding and conclusion of their study revealed the necessity for training outlines of job skills developed by the teacher, student and the employer before

the student begins to work.

Anderson also recommended,

A written training plan which lists the learning activities the student should engage in at the training station should be developed to serve as a guide to the employer in offering on-the-job instruction and to the teacher-coordinator in planning and teaching related instruction (4, p. 249).

On-the-job Training and Related Classroom Instruction

The majority of surveys and programs indicated the necessity for related classroom instruction, on-the-job training, and simulated facilities.

Fitts suggested the following items be considered by the teacher when conducting a work experience program:

Instruction in the classroom should relate to the student's occupation, and be presented in a variety of ways adapted to the local situation. Instructor should have a training plan of occupation, and the actual working conditions of the training station. Regular visitations to the training station should be made and students should receive individual and group classroom instruction pertaining to their selected occupations during one period (13, p. 103).

Oen and Bender (38) also indicated the need for a separate related class for the student on work experience to develop understanding.

Anderson (4) pointed out that adequate and appropriate facilities are essential and should be made available in schools conducting work experience programs so that related

classroom instruction can be correlated with on-the-job training.

Lancaster (26) listed three important reasons for on-the-job visits:

Classroom instructions correlated with work experience; periodic visits with the employers to evaluate the progress of the students; and, on-the-job supervision by the coordinator is important even if nothing more is accomplished than seeing the boy on the job and his knowing that you are interested in his progress (26, p. 94).

After employment is secured, and the student goes to work full time, a follow-up program is applied by Achimon (1) that involves periodic conferences with the employer and the student to determine weaknesses in the training the student received, and to determine other ways and means of improving the program.

Summary

Off-farm work experience programs are playing a major role in our schools today in training and preparing students for the many important jobs in off-farm agriculture.

It is increasingly apparent that with modern technology and improved agricultural production, the high school vocational agriculture program must carry the bulk of responsibility in training students in processing, distribution and servicing of agricultural products.

CHAPTER III

FINDINGS OF THE STUDY

Chapter III of this study examines the approximate number of participating students, the means of instruction, the methods of selection and placement, and the types of training plans and agreements that appear to be the most beneficial to off-farm work experience programs now operating in Oregon high schools. Through a questionnaire and personal interviews the following areas were examined:

- Total number of students enrolled in off-farm work experience programs and the number in specific work clusters.
- 2. Pre-employment instruction--its effect upon preparation for work; related classroom instruction--its effectiveness and relevance to education and work.
- 3. The criteria used in selection, placement and matching students with work stations.
- 4. Existing training plans and agreements—their differences and implementations.

A questionnaire was sent to 87 vocational agriculture departments in the state that had teachers with tenure of one year or more. These 87 instruments had 80.4 percent (70) which were completed and returned. Of the 70 returned

questionnaires, 39 or 55.7 percent, had programs in offfarm work experience.

Of the remaining 31 or 44.3 percent, respondents not having programs, ten strongly indicated their intention of establishing a program in the immediate future.

After having thoroughly examined the original questionnair, the next step was to randomly sample 30 percent of
all the respondents. The table of random numbers, taken
from Hirsch's Introduction to Modern Statistics (16, p. 98),
allowed the interviewing of 16 yes respondents and five no
respondents. These personal interviews enabled the
researcher to obtain facts from representative departments
throughout the state. This was done to gain further insight into the programs now in operation, by analyzing the
factors contributing to successful programs, and attempting
to establish a correlation between all other programs.

Further assistance and current information regarding vocational agriculture and work experience programs now operating in Oregon was obtained from Monty Multanen, State Supervisor, Agricultural Education, and Gordon Galbraith, Consultant, Agricultural Education. The State Department staff assisted in construction of the questionnaire, and were instrumental in setting up personal interviews at the State Fair, as well as substantiating data received from the questionnaires and personal interviews.

An interest and concern was expressed as to the determining factors that were responsible for departments not having off-farm work experience programs, especially since eight of the 31 departments not having a program were two man departments. However, only ten respondents indicated "no program", with no further explanation. The remaining respondents gave varied reasons for not having a program.

Two departments had a work experience program planned for the comming school term, and ten departments were working on a program in the future. Three departments had students working in off-farm occupations; however, because of lack of time, the teacher was unable to conduct a formal program. In these situations, the students found their own jobs and made their own agreements with employers.

The entire enrollment of vocational agriculture students in two other departments were all engaged in onfarm programs.

A comment from one department read: "When you have adults unemployed, it is quite difficult to employ teenagers." Another remark from a vocational agriculture teacher in Eastern Oregon was amusing:

"Imbler having a population of 167, and having a grocery store and Chevron gas station, makes this type of work experience program. This area is still on the job farming. I am interested in a program of this type, but being 15 miles from the nearest place of employment makes it impossible."

Comments from the two remaining departments indicated there was a "student interest" in off-farm work experience programs but the vocational agriculture teacher lacked time to initiate and conduct an adequate program.

Of the 39 yes respondents conducting an off-farm work experience program, nine of the departments had two or more instructors, one of which had work experience supervision and instruction as part of his duties. Vocational agriculture enrollment in two man departments ranged from 74 to 140 students with an average of 107 students, and 8.88 work experience students per department.

The remaining 30 yes respondents were one man departments, whose enrollment ranged from 26 to 101 students, with an average of 55 vocational agriculture students, and 5.5 work experience students per department. The number of students participating in off-farm work experience varied widely in each department from 1 to 27.

The 39 departments had a total of 245 students engaged in off-farm employment, consisting of 226 boys and 19 girls, for an average of 6.28 participating work-experience students per department.

A correlation was attempted between geographical locations and departments having a successful program, but results proved negative. The Eastern Oregon district, however, consisting of Enterprise, Imbler, Joseph, La Grande,

Union and Wallowa, did not contribute information pertinent to the work experience portion of the study. Three questionnaires were not returned and three that were returned indicated "no program". Their explanations were: "lack of employers;" "lack of interest by the administration;" and, "lack of student interest." There was no correlation between area and successful programs. Departments having work experience programs were distributed throughout the state.

Numbers in Specific Work Clusters

On the original questionnaire, the specific occupation of each student enrolled in the work experience program was listed. These occupations were grouped into various areas, as specified in Figure 1, which also indicates the numbers involved.

On an individual area basis, specialized agriculture, employing 64 students, had the greatest number. This group included custom farm workers, farm machinery operators, commercial dairy milkers and production recorders, nursery and landscaping workers, fishery and fruit stand employees, students working in agriculture experiment stations, and those working with sprinkler systems and irrigation operations. Farm labor and on-farm occupations were included in this group.

The area of sales and service are so closely related it is difficult to differentiate between the two. Actually, they could be combined with manufacturing and processing, as a single operation or business establishment could involve any, or all, of the areas.

The combined classification of sales and service included co-ops, feed stores, hardware stores, farm implement dealers, grocery stores, lumber yards, auction markets and butcher shops; employing students in assembly of farm machinery, transportation and delivery of farm products; working as a parts man in a truck or machine shop, or as a spray plane helper. Clerical employees, switch board operators and salesmen in agricultural businesses were also included.

Manufacturing and processing closely followed sales and service, including specific fields such as meat packing plants, canneries, grain elevators, flour mills, fertilizer plants, lumber mills and dairies. Welding and sheet metal shops were also included in this area.

Some students engaged in recreational activities included employment with the Fish and Game Commission and U. S. Department of Parks and Recreation Service.

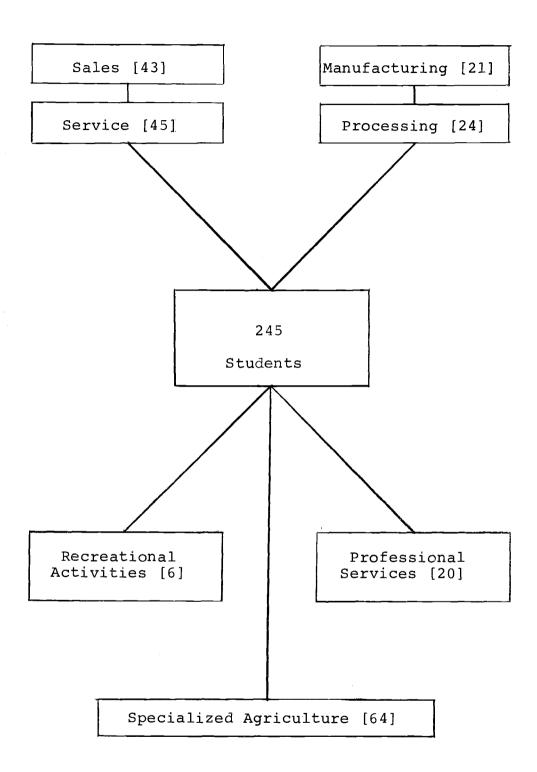


Figure 1. Occupational areas of students employed in off-farm work experience, indicating numbers involved.

Pre-employment and Related Classroom Instruction

This study corroborated that pre-employment instruction is a basic and essential training to students participating in work experience programs as well as to the entire vocational agriculture program. This fundamental instruction in work habits, elements of proper communication, grooming, interviewing, laws and regulations effecting workers, application letters, social security and income tax, contributes considerably to the training deemed desirable by employers.

Table 2 lists the training given before employment in departments now offering off-farm work experience programs. Of the 39 yes respondents, only three departments did not include any pre-employment training, with seven departments including all of the training listed.

Equally important to work experience is the related instruction in the classroom and on the job. This study attempted to ascertain whether or not the vocational agriculture departments had areas of instruction that were revised and correlated to meet the training necessary for student job needs.

Of the 39 yes respondents, 13 had classes geared to work experience, whereby instruction in the classroom related to the students' occupations. Departments presented this instruction to the entire class in a variety

Table 2. Pre-employment training in departments offering off-farm agricultural work experience programs.

·		
Rank	Area of Training	Total*
1	Work habits	36
2	Elements of proper communication	30
3	Grooming	27
4	Interviewing	26
5	Laws and regulations effecting workers	19
6-7	Application letters	17
6-7	Social Security	17
8	Income Tax	15

^{*} Of the 39 yes respondents, the total number including this area in their pre-employment instruction.

Note: A total of seven of the yes respondents included all of these areas of training, and three did not include any.

of ways adapted to the local area, while others had separate classes for work experience students if enrollment was sufficient.

Only two departments had special classes geared for individual students in off-farm work experience programs. This individual instruction, directed to develop understanding of one's occupation, was determined by periodic conferences with the employer and the student. Respondents on the questionnaire definitely indicated the desirability

of related individual instruction, but many were restricted because of lack of time and adequate facilities.

As work experience progresses, it becomes more apparent that close group supervision and specialized instruction is necessary for a successful program. The extra time required to adequately offer related instruction necessary to make progress in one specific occupation creates a problem, as some other areas might suffer by loss of time.

On the original questionnaire, 32 of the 39 respondents having work experience programs indicated specific individuals at the place of employment were responsible for supervision and instruction. The owner, manager or department head was designated. The vocational agriculture instructors did, however, keep in contact with the employer and student on the job to maintain up-to-date classroom instruction and check the students progress.

The desirable classroom situation would be a classroom with facilities, and an instructor with time flexible enough to provide both group and individualized instruction, therefore presenting a realistic atmosphere. Included in the instruction should be some simulated training facilities, and time allowed for actual on-the-job instruction or supervision. On-the-job supervision by the instructor is important even if nothing more is accomplished than seeing

the student on the job and his knowing that you are interested in his progress.

Selection and Placement

This portion of the study was developed to determine prerequisites for students desiring entrance into the work experience program; methods of selecting work stations; placement and matching of students to available work stations.

Information on the questionnaire established rank order of grades participating in work experience programs to be: 11th, 10th, 12th and 9th. Respondents indicated the 11th grade to be the most desirable in a four year vocational agriculture curriculum. This would permit the program curriculum for the 9th and 10th grade level to consist of a varied amount of training skills and classroom instruction that eventually would be of help in an on-the-job training program. As recommended, the student can then begin a work experience program in the 11th year.

Figure 2 lists the grade levels as recommended by the 39 yes respondents on the questionnaire. These findings were substantiated in the personal interviews.

At the time the original survey was conducted, no reference was made to cluster programs or students entering agricultural programs at different intervals. The

information obtained was based solely on three or four year vocational agriculture programs.

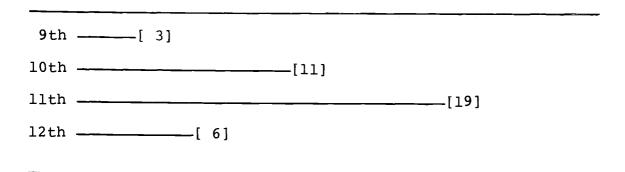


Figure 2. Recommended grade levels of participation in work experience according to number of times rated.

A minimum grade average was required of students participating in work experience programs by 14 of the 39 yes respondents. The respondents indicating a higher grade average was required felt scholastic achievement was important in that it helped motivate the students to attain better grades. Other departments indicated a student should not be allowed to fail other subjects because he is enrolled in work experience. Rather, the opportunity and privilege of participating in a work experience program should be an incentive to maintain a minimum grade average.

Departments not requiring an average indicated:

"Students that work usually don't go to college." However,

they did express that this program was not established for

the sole purpose of taking care of underachievers,

potential drop-outs and slow learners.

Table 3 lists the scholastic achievement requirements based according to results of the 39 yes respondents to the questionnaire.

Table 3. Scholastic achievement requirements.

Number	Required Grade
23	No required grade
1	D or 1.00
3	C- or 1.50
7	C or 2.00
2	C+ or 2.50
1	B or 3.0
2	Did not respond to question

The work station is one of the most vital, if not the most vital, part of an occupational experience program.

Much emphasis was placed on this by the respondents on the questionnaire and substantiated by the personal interviews.

Desirable or meaningful work stations make the program relevant to the over-all objectives of work experience.

Much of the success of this type of program is contingent on the quality of training that is given at the work station. The employer must have a genuine interest in this type of program with a willingness to participate in cooperation with the vocational agriculture instructor or

coordinator. He must be sincere in training the student, rather than only wanting low cost labor or other benefits.

An important requirement of a work station, strongly stressed by all respondents, was the vital importance of insuring the safety of the student worker.

The 39 yes respondents having a work experience program were in agreement on criteria used in selecting the training station. Table 4 indicates the rank order in selection of work stations by vocational agriculture departments according to their responses on the original questionnaire. The responses are further described as follows:

- 1. Type of occupations that provide experience requiring both skills and knowledge.
- Reputation of good standing through ethical business practices.
- 3. Working conditions should be safe with a good record of accident prevention and be free of hazards that might impair the safety or health of the worker.
- 4. On-the-job supervision by someone competent in the skills and technical aspects who is interested and eager to assist in the training program.
- 5. Opportunities for rotation providing a wide variety of direct experiences associated with the

Table 4. Selection of work stations in rank order, under specified area.

Rank	Employer	Job	Plan	Safety
1		Type of occupation		
2	Reputation			
3				Working conditions safe environment
4	On-the-job supervision			
5	·		Opportunities for rotation	
6		Accessi- bility		
7		Hours of employment		
8		Wage		

Note: Order computed according to number of times rated and rank listed of each of the 39 yes respondents.

Three respondents indicated that selection was based according to available jobs. However, these were not considered a valid criteria for purpose of selection and were not included in the rank order.

- occupation, and not merely routine work experience of a repetitious nature.
- 6. Accessibility in travel time between the school and training station.
- Hours of employment should be adequate for training.
- 8. Wages should be minimum for student based on that paid other employees of similar experience.

Results from the questionnaire signified the importance of insuring that the interest of both the student and employer is considered when matching students to work stations. It is at this point that the teacher and/or coordinator should guard against arbitrarily assigning a student to a training station without involving the employer.

At the time of actual placement of the student in an adequate work station, basic pre-employment training, as previously noted, should again be stressed.

In this study, 30 of the 39 yes respondents indicated that vocational counseling or some other means of counseling was used in the placement of their students in work experience. Some departments periodically reviewed with the students their career objectives, achievement in relationship to aptitude and ability, personal and social development, and job performance.

In view of the yes respondents and personal interviews, vocational counseling was found to be an important and necessary part of a successful work experience program. Respondents indicated that a great majority of the students were able to select their immediate on-the-job experience or their career objectives from vocational counseling.

On the original questionnaire, departments were asked to list in rank order, fifteen various reasons for placement of students. The rank given each reason was tabulated, the tabulation total was divided by the number of times ranked, resulting in the order listed in Table 5.

Interest of student was found to be first, and surprisingly, low income in last place. It has been assumed by many that placement was made because a student was in need of money.

In matching the student with the job, the survey indicated that the teacher, or teacher-coordinator, had the greatest responsibility in finding available jobs; followed by the student finding his own job; the use of a community survey; advisory committee; firms requesting help; and last, the employment services. Results also indicated the two man departments could allow more time to find available jobs while the one man departments depended on the student finding his own job or a firm requesting help.

Table 5. Criteria used in placement of students in off-farm agricultural work experience programs.

Placement criteria	*Rank
Interest	1
Occupational objectives	2
Personality characteristics	3 ·
Past work experience	4
Mental capability	5
Physical suitability	6
School attendance record	7
Social adaptability	8
Disciplinary record	9
Educational background	10
Hobbies	11
Guidance counsellor	12
Testing	13
Other school activities	14
From low-income families	15

^{*}Order computed according to number of times rated and rank listed of the 39 yes respondents.

Of the nine two man departments having work experience programs, eight departments indicated the teacher, or teacher-coordinator, assisted in obtaining jobs. By comparison, the remaining 30 one man departments having work experience programs principally relied on students finding their own jobs, community surveys, advisory committees and the employment service.

Thirty-eight of the 39 yes respondents were in agreement that the employer should have the final decision in selecting the student he desired for the job he had to offer. If, after interviewing a student, the prospective employer is not satisfied, another student is sent out by the department. The student is also given equal opportunity to survey the employment base and does not necessarily have to accept the offered position. To maintain ideal on-the-job environment, the employer must be satisfied with the student; the student must be satisfied with working conditions; and adequate training procedures must be applied with satisfactory results.

The one respondent stating the employer did not have the opportunity to interview and select the student of his choice, happened to only have one student enrolled in work experience who was employed by a relative.

Training Plans and Training Agreements

All respondents designated a systematic and comprehensive plan of action between student, teacher, parent and employer was essential in order to arrive at the desired results.

Employment of a student does not necessarily guarantee that the student will receive training and experience that is beneficial and meaningful. A written training plan should be drawn up by the teacher, in cooperation with the student and employer, outlining an orderly procedure of instruction. Policies and procedures should also be developed into the training plan that serve as a guide to the employer in offering on-the-job training to insure the student's experience will be truly educational. The plan should be based on the ability of the student, type of occupation and the actual working conditions of the training center.

In personally interviewing several of the respondents not having training plans, it was found that most did not realize the basic concept of a plan and when explained, readily agreed that it was a necessary item in letting the employer know what was expected of him as well as giving the student a better understanding of the objectives and scope of his chosen occupation. Twenty-seven of the yes respondents indicated the employer was contacted to assist

in determining related instruction provided in the training agreement.

Because students, employers, parents, school administrators, and teachers and/or coordinators, all have important roles to play to insure that the work experience program is successful, each should be familiar with his responsibilities. These responsibilities can be best understood and agreed upon by developing a written training agreement outlining the responsibilities of all concerned.

It can be well understood why this agreement should be completed as soon as the student is placed in the training station. It is a legal instrument for all concerned, as oral agreements may be forgotten and unnecessary hardship and embarrassment may follow.

Of the 39 yes respondents, 23 used the French-Bray agreement. This is an agreement published by the French-Bray Publishing Company of Baltimore, Maryland, for use in supervised occupational experience and training in vocational agriculture. Eight used modified or self-composed agreements while three indicated oral agreements, and five having no agreement, oral or written.

The training plan and training agreement are basically the same instrument. In most cases, the respondents indicated they combined the two agreements into one comprehensive agreement. The training plan is usually

most concerned with an orderly systematic procedure of experience and training the student is expected to complete while in the classroom and at the work station. In comparison, the training agreement is primarily the legal instrument, concerned with the responsibilities of the employer and the legal aspects of employing students. The two can be combined into one agreement that clearly states the responsibilities and duties of the student, employer, teacher, school administration and parent.

A sample training plan and agreement is in the appendices.

CHAPTER IV

SUMMARY

Since the passing of the Morrill Act in 1862, legislation has continued to increase vocational education and provide training programs in vocational agriculture departments. Thus, the responsibility of preparing students to enter an occupation in the agricultural field has been given to education.

Because of increased farm production and greater production goals, both on-farm and off-farm occupations now comprise a vast work force. Nationwide, education is faced with providing sufficient trained workers to meet the need of off-farm industries. The off-farm work experience program has become one of the best methods of effective training initiated.

This study is limited to identifying the areas of instruction, placement, and agreements in off-farm agricultural work experience programs that have been the most successful in high school vocational agriculture departments in Oregon. To accomplish this a questionnaire was mailed to 87 vocational agriculture departments in Oregon high schools. Thirty percent of the responding departments were selected by a random sampling method and followed up with a personal interview of the vocational agriculture

teacher.

Of the 87 questionnaires mailed, 70 or 80.49 were returned. Thirty-nine respondents had off-farm agricultural work experience programs and 31 respondents were not participating in the program.

The 39 yes respondents had 226 boys and 19 girls employed through off-farm work experience programs, a total of 245 students, or 6.28 students per department. The largest department had 27 students employed, while the smallest had one student participating in the program. Nine of the vocational agriculture departments were two man departments, with one man being responsible for work experience. The remaining 30 were one man departments.

Thirteen respondents had classes programmed to work experience, while two had special classes for individual students in their occupational area.

Thirty-five respondents indicated that a training plan was drawn up before employment, and four did not respond to the question.

Twenty-three respondents used their advisory committee in various ways to assist them in their work experience program; selecting work stations, students, wages; locating available jobs and developing the program.

Thirty of the respondents indicated that students wishing to participate in work experience received

counseling or vocational guidance in desired areas.

Twenty-five of the departments did not require a specific grade average for students wishing to participate in work experience while the remaining fourteen departments indicated grade averages from B to D were required.

All departments using training plans and agreements included the student, employer and teacher; with a majority of the rest including parent; and some including principal, school board members and school administration.

Conclusions

- 1. The need for a standardization of terms and procedures and organization of work experience programs is evident at the local level. Most of the programs now in progress are formulated at the school and terms and procedures used do not correlate with those offered by other schools.

 Some departments were not sure of the procedures, terms, or steps required in organization of an off-farm work experience program.
- 2. Students employed in work experience programs can be classified in four general areas: manufacturing-processiong; sales-service; specialized agriculture; recreational activities; and professional services.

- 3. Participation in production and non-production activities should be encouraged to enable the student to gain as much work experience as possible in the many different agricultural areas.
- 4. There should be no limits in the nature of the agricultural experience programs offered to students.
- 5. Departments should select and use an advisory committee in planning or conducting a work experience program and activities should be coordinated with the employer, instructor, advisory committee, and administration.
- 6. Teachers should prepare a course of study, which includes adequate classroom time, shop and field supervision; the program should be evaluated periodically in terms of training, with a follow-up after placement.

Recommendations

The following recommendations, pertinent to the expansion and improvement of off-farm agricultural work experience programs in Oregon, are based on data resulting from the research, study, and findings on the preceding pages.

- 1. More information on off-farm work experience should be made available to all vocational agriculture departments, and recommendations and outlines for several programs should be established, as one program will not fit all situations.
- 2. Terms used in off-farm work experience programs should be standardized on a national level.
- 3. Adequate and appropriate facilities should be made available in schools conducting off-farm work experience programs, and sufficient instructional material should be provided by the school to supplement the teaching of related classroom instruction.
- 4. Additional help should be obtained in large, one-man departments and more in-service training provided to improve present programs needing assistance, and to help establish new programs.
- 5. A well planned and systematic method of selecting training stations should be used by the teacher to insure the best possible training environment is provided for the student.
- 6. The school should have a definite plan for screening and selecting students that conforms to local school policy, satisfies cooperating

- employers and meets students needs.
- 7. A written training plan which lists the learning activities the student should engage in at the training station should be developed by the teacher to serve as a guide to the employer in offering on-the-job instruction and to the teacher in planning and teaching related instruction.
- 8. The teacher should have an organized and systematic plan for visiting students at their training stations so that related classroom instruction can be correlated with on-the-job training.

BIBLIOGRAPHY

- 1. Achimon, L. A. Work experience programs.
 Agricultural Education Magazine 38:205. 1966.
- 2. Agricultural Education Magazine. 5 1/2 million get vocational training. (Editorial) Agricultural Education Magazine 40:15. 1967.
- 3. Allison, John W. Now every vo-ag student learns through supervised practice. Agricultural Education Magazine 39:53. 1966.
- 4. Anderson, Harold. Guidelines for planning and conducting cooperative work experience programs. Agricultural Education Magazine 38:249. 1966.
- 5. Balado, J. E. Ag occupations program valuable. Agricultural Education Magazine 39:256-257. 1967.
- 6. Binkley, Harold. Courses of study in non-farm agricultural occupations. Lexington, University of Kentucky, 1965. 200 p.
- 7. Binkley, Harold and W. C. Montgomery. Pilot programs in agricultural occupations. Agricultural Education Magazine 39:162-164. 1967.
- 8. Canada, R. W. Teaching farm and non-farm boys in same class. Agricultural Education Magazine 38:62-63. 1965.
- 9. Celebrezze, Anthony J. Education for all our youths. American Vocational Journal 39:12-14. February, 1964.
- 10. Craig, David G. Some criteria for work experience. Agricultural Education Magazine 38:150-151. 1966.
- 11. Cushman, Harold R., Virgil E. Christensen and Garry R. Bice. Off-farm agricultural occupations in New York State. Agricultural Education Magazine 38:184-185 and 189-190. 1966.
- 12. Faulkner, T. L. Updating vocational agriculture to meet present and future needs. Agricultural Education Magazine 38:84-85. 1965.

- 13. Fitts, James. Our changing role. Agricultural Education Magazine 39:102-103. 1966.
- 14. Fuller, Gerald R. Guidelines for teaching OFAO. Agricultural Education Magazine 37:167-168. 1965.
- 15. Heilman, Casmer Franklin. Utilizing student and employment data in vocational education planning.

 Master's thesis. Corvallis, Oregon State University, 1966. 72 numb. leaves.
- 16. Hirsch, Werner Z. Table of random digits. In: Introduction to modern statistics, by Werner Z. Hirsch. New York, Macmillan, 1957. p. 97-100.
- 17. Hoover, Norman K. and J. Thomas Weyant. An agribusiness pilot project in Pennsylvania. Agricultural Education Magazine 38:55, 68. 1965.
- 18. Hubbell James and W. P. Blanchard. In rural area-off-farm work experience as a resource. Agricultural Education Magazine 38:79. 1965.
- 19. Huffman, Roy E. Vocational education for tomorrow's agriculture. Agricultural Education Magazine 38:56, 63. 1965.
- 20. Hutson, Denver B. Agricultural mechanics for students who enter non-farming occupations. Agricultural Education Magazine 39:208-209. 1967.
- 21. Jenkins, Keith. A survey of off-farm employment opportunities for Oregon farm families. Corvallis, 1963. 24 p. (Oregon. Agricultural Experiment Station. Bulletin 591)
- 22. Juergenson, E. M. Planning work experience.
 Agricultural Education Magazine 39:257. 1967.
- 23. Keesler, Norman Glen. Competencies needed in off-farm agriculture based on a survey of agricultural industry in the Vale area. Master's thesis. Corvallis, Oregon State University, 1968. 68 numb. leaves.
- 24. Korzan, Gerald E. Oregon's agriculture is your business too. Rev. ed. Corvallis, 1965. 36 p. (Oregon. Agricultural Experiment Station. Special Report 183)

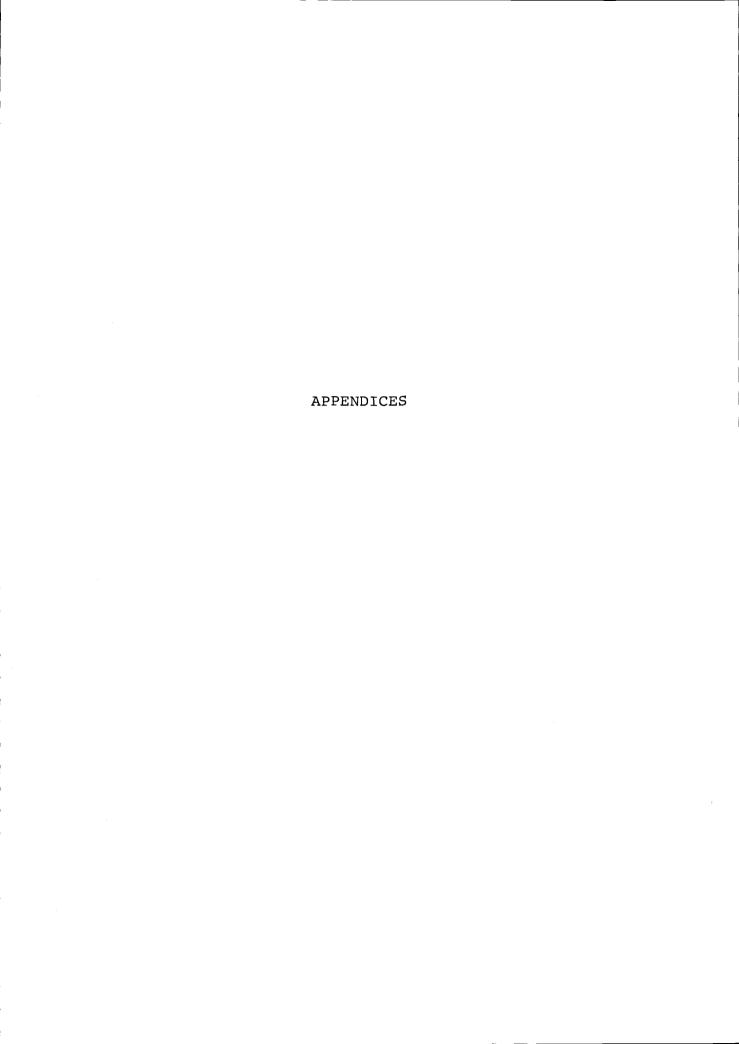
- 25. Krebs, A. H. and Paul E. Hemp. A study guide for placement-employment programs in agricultural business and industry. Danville, Illinois, Interstate Printers and Publishers, 1964. 265 p.
- 26. Lancaster, Stan. Developing occupations program in off-farm occupations. Agricultural Education Magazine 38:78, 94. 1965.
- 27. Lee, Allen and H. M. Hamlin. New designs in vocational and practical arts education. American Vocational Journal 40:20-23. November 1965.
- 28. Marrison, Robert. Teacher and students together in agri-business classes. Agricultural Education Magazine 39:127. 1966.
- 29. Mason, Ralph E. and Peter G. Haines. Cooperative occupational education and work experience in the curriculum. Danville, Illinois, Interstate Printers and Publishers, 1965. 525 p.
- 30. Matteson, Harold R. and Walter T. Bjoraker. More workers needed in agricultural occupations.

 Agricultural Education Magazine 39:178-179. 1967.
- 31. McDowell, L. C. Vocational education and changing needs. Lexington, University of Kentucky, Bureau of School Service, 1965. 82 p. (Bulletin, vol. 38, no. 1)
- 32. McMillion, Martin B. Supervision and co-op education. Agricultural Education Magazine 39:276-277. 1967.
- 33. Miller, Texton R. Astronauts or agriculturists, both need exploratory experiences. Agricultural Education Magazine 38:90-91. 1965.
- 34. Moos, Elizabeth. The new work study program in the Soviet Union. New York, National Counsel of American-Soviet Friendship, 1965. 45 p.
- 35. Multanen, Monty Edward. Off-farm agriculture occupations in Yamhill County. Master's thesis. Corvallis, Oregon State University, 1966. 80 numb. leaves.

- 36. National Society for the Study of Education.
 Vocational education: the 64th yearbook of the
 National Society for the Study of Education, ed. by
 Melvin L. Barlow. Part 1. Chicago, University of
 Chicago, 1965. 301 p.
- 37. Naugher, R. E. Agriculture education for a changing agriculture. American Vocational Journal 39:18-20. February 1964.
- 38. Oen, Urban E. and Ralph E. Bender. Procedures employed by teachers in conducting off-farm cooperative work experience programs. Agricultural Education Magazine 39:180-181. 1967.
- 39. Ohio State University. Center for Research and Leadership Development in Vocational and Technical Education. Planning and conducting cooperative occupational experience in off-farm agriculture. Columbus, August, 1965. 138 numb. leaves.
- 40. Oregon. State Board of Education. Oregon education: Biennial report, 1965-1966. Salem, 1966. 103 p.
- 41. Oregon. State Department of Education. Division of Community Colleges and Vocational Education. Coop program the common bond. Salem, n.d. 80 p. (Mimeographed)
- 42. Oregon. State Department of Education. Division of Community Colleges and Vocational Education. Cooperative work experience in agricultural occupations. Salem, 1967. 31 p. (Mimeographed)
- 43. Patrick, Paul. A work experience program meets two needs. Agricultural Education Magazine 38:61. 1965.
- 44. Pearce, Frank C. Experience program better than supervised farming program. Agricultural Education Magazine 38:60. 1965.
- 45. Roberts, Roy W. Vocational and practical arts education-history, development and principles. New York, Harper and Row, 1965. 596 p.
- 46. Scarborough, Cayce. Work experience for what? Agricultural Education Magazine 38:147-148. 1966.

- 47. Tenney, A. W. Agricultural employment--what's the future? Employment Service Review 4:26-28. June, 1967.
- 48. United States Office of Education. Education for a changing world of work. Report of the panel of consultants of vocational education. Washington, D.C., 1963. 296 p. (Report no. OE-80021)
- 49. United States Office of Education. Vocational and technical education; a review of activities in federally aided programs. Washington, D.C., 1966. 74 p.
- 50. Urban, William. Work experience for boys--service for farmers. Agricultural Education Magazine 38:152-153. 1966.
- 51. Venn, Grant. A life time concern. American Vocational Journal 41:16-17. November, 1966.
- 52. Venn, Grant. Man, education and work. Washington, D.C., American Counsel on Education, 1965. 184 p.
- 53. Vocational Education Act of 1963. Public Law No. 210, 88th Congress, 2d sess. (Dec. 18, 1963)
- 54. Weaver, Charles E. Ohio students desire vocational education. American Vocational Journal 39:12.

 May, 1964.
- 55. Williams, George S. Providing work experience for non-farm vo-ag students. Agricultural Education Magazine 39:60. 1966.
- 56. Wilson, E. F. and Morris Witten. Training provided in agricultural distribution. Agricultural Education Magazine 38:54, 69. 1965.



APPENDIX I

Mailed Questionnaire

	(No.)	Area	Specific Occupations
	()	Specialized Agriculture	
	()	Recreational Activities	
	(')	Professional Services	
	()	Other	
4.	Total On job		week: At school:
5.	Are there classes provided specifically for off-farm cooperative work experience students? Yes No Are separate classes provided for students in each special area? Yes No		
6.	Are specific individuals at place of employment responsible for supervision and instruction? Yes No Who?		
7.	Who provides related instruction? Ag. teacher Coordinator Employer All None		
8.	Is a training plan drawn up before employment that outlines instruction and supervision? Yes No Is employer contacted to determine what related instruction is needed? Yes No		
9.	studer	acher alloted ti ats while on job alloted	me to instruct or supervise ? Yes No
10.	before Int Gro Wor Inc	what training is employment; erviewing coming to habits come Tax cial Security	Application letters Laws and regulations effecting worker Elements of proper communication
11.	Are si dents	milated trainin	g facilities available to stu- instruction? Yes No

12.	Do you use an Advisory Committee in conjunction with your work experience program? Yes No How?
13.	Do students wishing to participate in cooperative work experience have vocational counseling and a tentative career objective? Yes No
14.	Is student required to maintain a minimum grade average to participate in the cooperative work experience program? No If yes, average required:
15.	Indicate in rank order criteria used in placement of students. (
16.	<pre>Indicate in rank order the methods used to obtain work stations. () Students find own jobs () Employment service () Community survey () Teacher-coordinator () Advisory committees () Other (please clarify)</pre>
17.	Does employer have opportunity to interview and select student to be employed? Yes No If no, is student assigned? Yes No
18.	Put in rank order criteria used in selecting work stations. () Opportunities for rotation - variety of direct experience () Type of occupations - requiring some skill and knowledge

	()	On-the-job supervision - providing facilities,
		equipment and up-to-
	()	date methods. Working conditions - safe, clean and with a
	\	good record of accident
		prevention
	()	Reputation - reliable business establishment
	()	Hours of employment - sufficient training hours
	()	Accessibility - within a reasonable distance
	, ,	from school
	(——)	Wage - pays a minimum wage
	()	Other - (please clarify)
19.	Do vou	use the agreement in the Supervised Occu-
*		al Experience book by French-Bray? Yes
		If no, source of agreement
20	Tmaliant	to which of the following items one implement in
20.		te which of the following items are included in raining agreement:
		ame of employer (Person in charge of student
	(,	on-the-job)
		eginning wage
		ration of the training period
		pportunities of employment after training period
		umber of hours to be worked per week
		pecific duties of the student
		ours of the day occupational experience is to be covided
	_	esponsibilities of the student
		esponsibilities of the parent
		esponsibilities of the teacher-coordinator and
		ne school
		esponsibilities of the employer
	() Ot	iner
21.	What pe	eople are involved in the agreement besides the
	employe	er and student?
	() 5	School Board () Parents or guardians Guidance Personnel () Teacher-coordinator Principal () Others
	() (Guidance Personnel () Teacher-coordinator
	() E	Principal () Others
₩ould	l you li	ike a copy of the results of this study?
	No	
-		
		preciate your comments or any additional
		you feel pertinent to this study. Please
THOTC	ate on	reverse side of this questionnaire. Thanks, Bill
		Illaliks, DIII

APPENDIX II

Personal Interview Checklists

Yes	Respondents
Nam	e:School:
(núi	Vocational agriculture students mber)
(nu	Work experience students
1.	How many more students could you handle?
	Are more work stations available?
2.	Number of teachers in vocational agriculture department. Is there a need for another teacher?
3.	Length of experience teaching vocational agriculture.
	Time at present school:
	Years of work experience program:
4.	Are there students interested and waiting to be enrolled? Number
5.	How was your program developed?
	Who initiated program and established criteria?
6.	How many work stations in community?
	Was a survey run to find stations?
	Procedures?
7.	What jobs are available for girls?
8.	Cost of program in excess of vocational agriculture?

9	9. What is the response/acceptance of the following: (Good, fair poor or no response)		
	Community	Administration	
	Student	Advisory Committee	
	Parents	Other teachers	
	Guidance Counse	elor	
10.	How many credits do studer	nts receive?	
	Are they graded for on-the	e-job progress?	
11.	Do you feel students get a sufficient amount of technical agriculture prior to work experience?		
12.	Could or should separate of	classes be scheduled?	
13.	Outstanding points of your	work experience program.	
14.	Weak points of program.		
15.	Are there future plans for work experience program?		
16.	What kind of in-service pryou?	rograms would be of value to	
17.	Suggestions or comments (in pertaining to work experience		
No R	Respondents		
1.	Are there plans in the fut program?	cure for a work experience	
2.	Student interest Time	program: Lack of stations Community support	
	Administrative support		
3.	One or more teacher depart	ment?	
	Would the addition of anot	ther teacher help?	
4 。	Suggestions or comments pe	ertaining to work experience.	

APPENDIX III

French-Bray Training Agreement

To provide a basis of understanding and to promote business relationships this memorandum is established on
Person (employer) responsible for training
The usual working hours will be as follows: While attending school When not attending school
Provisions for overtime:
Provision for time off:
Liability Insurance coverage (type and amount)
Wages will be at the following rate(s): Trial Period: Remainder of the Agreement Period: And will be paid (when?):
IT IS UNDERSTOOD THAT THE EMPLOYER WILL:
Provide the student with opportunities to learn how to do well as many jobs as possible, with particular reference to those contained in the Planned Program.
Coach the student in the ways which he has found desirable in doing his work and handling his management problems.
Help the teacher make an honest appraisal of the student's performance.
Avoid subjecting the student to unnecessary hazards.
Notify the parent and the school immediately in case of accident or sickness and if any other serious problem arises

	Assign the student new responsibilities when he can handle them.
	Cooperate with the teacher in arranging a conference with the student on supervisory visits.
	Provide other considerations:
THE	STUDENT AGREES TO ITEMS CHECKED BELOW:
	Do an honest day's work recognizing that the employer must profit from his labor in order to justify hiring him.
<u> </u>	Keep the employer's interest in mind and be punctual, dependable, and loyal.
	_Follow instructions, avoid unsafe acts, and be alert to unsafe conditions.
	Be courteous and considerate of the employer, his family, and others.
	Keep such records of work experience and make such reports as the school may require.
	Develop plans for management decisions with the employer and teacher.
	Other:
THE	TEACHER, IN BEHALF OF THE SCHOOL, AGREES TO:
	Visit the student on the job at frequent intervals for the purpose of instruction and to insure that he gets the most education out of his experience.
	Show discretion at the time and circumstances of these visits, especially when the work is pressing.
	Other:
THE	PARENT AGREES TO:
	Assist in promoting the value of the student's experience by cooperating with the employer and the teacher of vocational agriculture.

To satisfy himself in conditions made avail	regard to the living and working able to the student.
Other:	
ALL PARTIES AGREE TO:	
An initial trial peri the student to adjust	od of working days to allow and prove himself.
Discuss the issues wi employment.	th the teacher before ending
Other:	
STUDENT	EMPLOYER
Address	
Tel. No	
Social Security No	
PARENT	TEACHER
Address	Address
Tel. No	Tel. No
	School Tel. No.