DOCUMENT RESUME

ED 171 920 CE 020 367

AUTHOR Newcomb, L. H.; And Others
TITLE Agriculcure Education. Topic Analysis for Vocational Teacher Education.
INSTITUTION Ohio State Dept. of Education, Columbus. Div. of Vocational Education.
PUB DATE Sep 78
NOTE 62p.

EDRS PRICE MF01/PC03 Plus Postage.
DESCRIPTORS *Agricultural Education; Behavioral Objectives; *Core Curriculum; Course Content; Formative Evaluation; Higher Education; Methods Courses; Preservice Education; Records (Forms); Summative Evaluation; *Teacher Education Curriculum

ABSTRACT

Three papers presented at a teacher education conference on the development of common core curriculum for vocational teacher education are contained in this booklet. The titles and authors are as follow: "A Model Methods Course for Agricultural Education," by L. H. Newcomb; "Preparing Teachers to Develop Courses of Study in Vocational Agriculture," by David McCracken; and "Pre-Service Field Experience as Preparation for Teaching," by Leon Boucher. Each paper addresses six primary points of emphasis: (1) need for the proposed course, (2) objective, (3) content, (4) instructional strategies, (5) evaluation, both formative and summative, and (6) related resources. Appended to the third paper are a list of criteria to be considered in selecting cooperating teachers and cooperating schools, suggested guidelines for orientation of student teachers, trainee evaluation report for vocational agriculture experience, and an agreement form for use between a local school system and a teacher education training center regarding student teachers. (JH)

Topic Analysis for Vocational Teacher Education

Agriculture Education

Members of State Board of Education of Ohio

Administration

Dr. Franklin B. Walter
Superintendent of Public Instruction
Ohio Department of Education

Dr. Byrl R. Shoemaker
Director of Division of Vocational Education
Ohio Department of Education

Foreword

In recent years, extensive efforts have been exerted from a state vocational education perspective to impact upon the professional staff development of state leadership and local program personnel. Teacher education has been involved in these staff development activities, but formalized efforts which have implication for statewide pre-service and baccalaureate vocational education professional personnel development programs have been limited.

During recent years there have been sweeping institutional reforms for the professional preparation of teachers in Ohio, adopted by the State Board of Education. The resultant institutional restructuring to meet these standards, has replaced the traditional approach of adding or deleting courses for certification as a means of preparing teachers, and are designed to prepare teachers who will possess sound professional knowledge of the learning process, have competencies in the clinical use of sophisticated diagnostic instruments, and posses the ability to work effectively with youth from various social, economic and racial environments.

The primary purpose of the teacher educator conference was to "enhance the effectiveness of vocational education professional personnel development program through the bringing about of an awareness and understanding of teacher education standards and their implication for program redesign, and the review of common core curricula and program criteria for vocational education personnel development." This expressed purpose was met through the combined efforts of many teachers educators and other state staff who designed the program. Special acknowledgement is extended to the teacher educators who prepared, presented, and revised the professional papers which focused on common core curricula for vocational education. During the two and one half day conference, eighty-five teachers educators from various universities across Ohio had the opportunity to react to and critique the written presentations. Each paper addressed six primary points of emphasis: (1) Need for the Proposed Course, (2) Objectives, (3) Content, (4) Instructional Strategies, (5) Evaluation, both formative and summative, and (6) Related Resources.

This publication is a product of the teacher educator conference. We are indebted to the various publication authors and to the conference participants for their professional counsel and written critique of the various critical analyses. The concepts and ideas contained in these papers are the sole responsibilities of the authors and are to serve as a basis for discussion and further development.

Byrl R. Shoemaker
Executive Director,
Vocational and Career Education
and School Food Service,
Ohio Department of Education

Table of Contents

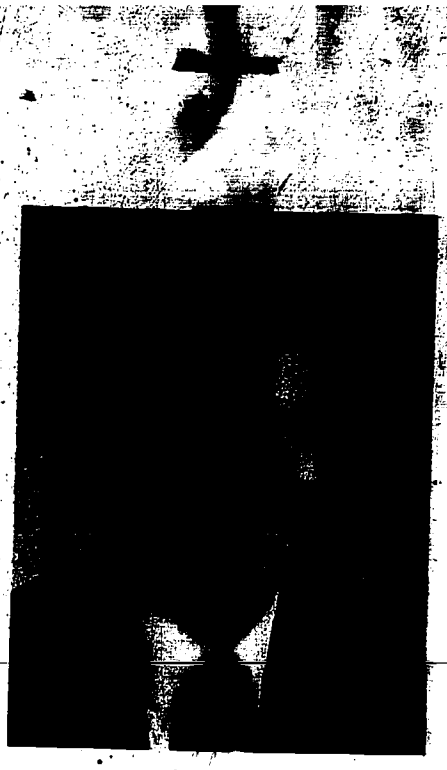
Topic Analysis for Vocational Teacher Education

A [redacted] METHODS COURSE FOR [redacted] EDUCATION

Prepared by
L. [redacted] Newcomb
[redacted]ate Professor
Department of Agricultural Education
The [redacted]hio State University

Ohio Department of Education
Division of Vocational Education
Columbus, Ohio 43215

September 1978



L.H. NEWCOMB was born and reared in Chase City, Virginia. He was a student of vocational agriculture in high school and state president of Virginia Association of FFA. He received his B.S. and M.S. degrees in Education from Virginia Polytechnic Institute and State University. After teaching vocational agriculture in Virginia, he completed a Ph.D. program at The Ohio State University. During the period of 1971 through 1973, he served as Teaching Associate in the Department of Agricultural Education at The Ohio State University. In 1973, he was named Assistant Professor of Agricultural Education where he has served until the present time. His major responsibilities include teaching the undergraduate methods course, a course on college teaching, the youth organizations course, as well as courses in adult education and occupational experience programs.

A MODEL METHODS COURSE FOR AGRICULTURAL EDUCATION

NEED FOR A SEPARATE COURSE IN METHODS OF TEACHING

The primary purpose for preparing teachers is to teach them how to teach. The central reason for a teacher's existence is to plan for teaching and to satisfactorily instruct students in the classroom and in the various laboratories of the school. As Harold Binkley says in the August, 1978 issue of *The Agricultural Education Magazine*, "The pre-service teacher education program for teachers of agriculture should be deeply rooted in the fundamentals of teaching and learning." To fulfill this charge requires deliberate effort.

The AATEA has been very concerned with the tremendous variations in the content of methods courses in the agricultural education departments in the United States. Previous work by Crunkilton revealed that "topics which were directly related to teaching techniques varied from 12-100 percent of all topics in the methods courses." (p. 1 of "An Assessment of the Pedagogical Skills Taught to Agricultural Education Undergraduates," 1977). Therefore, it is obvious that some institutions' methods courses cover the waterfront. It is difficult to see how courses with such a proliferation of content areas can do any more than make prospective teachers aware and only knowledgeable enough about the art of teaching to be dangerous.

It is this writer's point of view that if one is to be thoroughly prepared to teach one must have considerably specific preparation for this task. Furthermore, if the body of knowledge related to planning and teaching is systematically taught in a single course the understandings developed will be clearer and more permanent. Such a course should be offered immediately preceding student teaching if it is to be as relevant and meaningful as possible.

Not only is a separate methods course essential to the preparation of vocational teachers, but such a course should be service area specific.

Need for a Separate Methods Course for Each of the Vocational Service Areas

Periodically state departments of education and teacher education departments consider combining the methods courses of all the service areas and offering a methods course for majors in all of the vocational departments. Some states and/or universities have, of course, inacted such a program; but many have abandoned such a program. When considering such a curricula change, decisions should be made based on logic, facts, and successful practice rather than rhetoric and emotion.

In the case of agricultural education the most overwhelming justification

for a separate methods course for agricultural education majors is the uniqueness of instruction in this service area. Unlike other service areas, agricultural education is highly oriented to teaching decision-making. In the rapidly changing agricultural industry workers must clearly have command of the basic principles of plant and animal growth, economics, mechanics and management. However, this is only the foundation. The crucial area requiring mastery is the ability to analyze a situation, impinging factors and make viable decisions. This heavy emphasis on broad scale decision-making requires a different approach to teaching than is required for service areas with a higher portion of low level cognitive development and extensive psychomotor skill development. This in turn requires a different method of preparation for teaching.

Another very important consideration for retaining service area identity for the methods course in agricultural education is the need for creating and using relevant frames of reference. It is important for prospective teachers to speak the language they will be required to use; to reflect on subject matter examples with which they can identify; and to hear from a professor who has mastered the teaching tasks expected of them to master. If this relevance is not important then all college teachers aspiring to be elementary and secondary teachers could take the same general methods courses. Of course, they would then be generally prepared rather than specifically prepared for teaching vocational agriculture.

Unlike the other service areas, vocational agriculture's occupational experience programs are twelve months in duration, deal with seasonal variations and often involve parents as cooperators. In addition, these programs often involve ownership and decision-making requiring a method of teaching and learning that takes all of this into account. Without considering these factors in developing methods of teaching then prospective teachers would lose sight of and mastery of these important program ingredients.

Even in learning how to plan for and manage laboratory learning, vocational agriculture requires specialized methods. Crops and animals grow and change and cannot represent constant work stations. Also, it may only take two weeks to teach a student how to produce a crop, but it may take the crop six months to be produced. Before a professor can teach prospective methods to use in managing a school farm he/she needs to personally understand this unique learning facility.

Another factor requiring uniqueness in instructional techniques for vocational agriculture is the use of enterprise records in teaching. If the professor has not developed this ability as a classroom teacher, then it probably will not be stressed with others.

Teachers must be prepared to teach individuals. These students are people of worth; they are also either rural or of an agrarian aptitude. As teachers are taught how to teach, an intimate analysis of their clientele is crucial. Those who do not understand this clientele cannot adequately

"train" future teachers to give appropriate consideration to this factor when designing instruction.

Vocational agriculture teachers have no textbook. They must make extensive use of an array of instructional materials. This situation demands appropriate consideration which is not needed when texts are available, and vocational agriculture also makes the use of student notebooks as a part of the learning process — a crucial concern for the prospective teacher.

A final consideration for those who would ponder integrating the existing service area methods courses into one course for all of vocational education is the unique role of FFA as a method of teaching and learning. True, each of the service areas has a youth organization. However, if one is to effectively use the youth organization one must be specifically cognizant of its programs and how these programs can best be interwoven with the technical aspects of the course.

If one were asked for a recommendation if all these arguments for a separate methods course were of no avail, the most prudent answer would be — "stop trying to prepare effective teachers of vocational agriculture."

PERFORMANCE OBJECTIVES FOR A METHODS COURSE (by topical area) IN AGRICULTURAL EDUCATION

Unit — Principles Basic to Teaching and Learning

1. Explain the basic principles of learning discussed in class.
2. Identify the basic principles of learning used in any teaching observation.
3. Identify the principles of learning you have used in planning and presenting instruction.

Unit — Problem Solving Approach (PSA)

1. List the steps (in order) of the learning process.
2. List the steps (in order) of the PSA to teaching.
3. Correlate the proper step of the learning process with the corresponding step of the PSA.
4. Describe in writing each step of the PSA.
5. List what planning is needed for each step of the PSA.
6. List what is to be accomplished with each step of the PSA.
7. Select appropriate techniques to use with each step of the PSA.

8. Plan problem areas using the PSA.
9. Describe what is necessary for a daily and minimum lesson plan.
10. Analyze teaching performances in the micro-teaching laboratory and prescribe remedies appropriate for all deficiencies.

Unit — Testing

1. Recognize the advantages and disadvantages of various types of teacher-made test items.
2. Construct test items for units developed for student teaching.

Unit — Teaching Methods

1. Identify the basic methods of teaching (as discussed in this class) appropriate for agricultural education.
2. Effectively use the methods of teaching discussed in class, during the micro-teaching laboratory and in student teaching.
3. List the advantages, disadvantages, and uses of the various methods of teaching.
4. Incorporate at least five different methods of teaching into your assigned unit plans.
5. Keep a class notebook that will be graded (illustrative of notebook that should be kept by high school students).

Unit — Classroom Discipline

1. Given a particular situation, analyze orally or in writing the implications for classroom discipline.
2. Given a particular situation, list possible solutions to a discipline problem.
3. Apply appropriate techniques to solve disciplinary situations which are introduced in the micro-teaching laboratory.

Unit — Managing Learning Laboratories

1. Develop acceptable plans for teaching in the laboratory setting.
2. Develop and be able to use skill charts.
3. Develop a clean-up procedure.
4. Develop and be able to operate training centers.
5. Develop job sheets.

TOPICAL OUTLINE FOR AN IDEAL METHODS COURSE

This proposed outline needs to be prefaced with a discussion of what makes for an ideal methods course. This teacher educator feels that the ideal methods course is one that deals strictly with the process of teaching and learning. It does not become cluttered with a wide array of topics which cover the waterfront of program planning and operation. Indeed there has been widespread concern nationally in agricultural education circles that most methods courses did far too little in developing the basic pedagogical skills. The Grunkilton Committee of AATEA (of which this author is a member) continues to examine this problem. This group reported in 1977 that "the so-called methods courses" varied widely between institutions as to the content of the course.

In preparing this topical outline for the ideal methods course in agricultural education, this writer has personally studied 70 [illegible] methods course syllibi in agricultural education in the United States. No consideration has been given to the constraint of time or credit hours available. However, this content is crucial enough that the time must be made available to do the job.

First the topical outline for the lecture portion of the course will be presented, followed by the outline for the laboratory of the course. In both the lecture and the laboratory extensive use is made of actual teaching and detailed analyses of teaching performances are made followed by prescribed courses of action to remedy problems which have been diagnosed. In the lecture, actual video tapes of master teachers, as well as telelectures with master teachers of vocational agriculture are used to connect theory with practice.

It is crucial to realize that the "bottom line" in this course is demonstrated performance. There are two requisites which are insisted upon, i.e. 1) the students must demonstrate their ability to plan two, two-week units of instruction and 2) they must demonstrate their ability to proficiently use the problem solving approach to teaching. Mastery is crucial. Inadequate performances are diagnosed, prescribed remedies are advanced, and repeated performance is observed.

Proposed Outline
Lecture Portion

Topic:	Time Allotted In Days.
The relationship [illegible] teaching	1
Understanding the basic principles of learning	2
Understanding the relationship between the learning process and the problem solving approach to teaching	

Topic: (Continued)	Time Allotted In Days:
Using the problem solving approach to teaching for planning teaching units and executing instruction	11
— The parts, their meaning, and use	
— Title, situation, (including using the occupational experience program as a basis for identifying student and class problems and desired practices) teacher objectives	(3)
— Interest approach, group objectives, problems and concerns.	(4)
— Solving the problem	
— Formats for detailing t[illegible]	
Identifying and using the basic [illegible]	
— Lecture/Discussion	(1)
— Demonstration	(2)
— Supervised study	(2)
— Field trip	(1)
— Experiments	(1)
Identifying and using community resources in teaching	2
Developing approved practices and using occupational experiences to apply problem solutions	4
Evaluating teaching and learning	2
Using a minimum and daily plan with the unit plan	1
Using the student notebook for learning	1
Managing learning laboratories	8
— Planning for laboratory instruction	(2)
— Identifying and managing learning centers (stations	(2)
— Using coaching	(1)
— Developing and using a management and clean-up schedule	(2)
— Evaluating labortory learning	(1)
Summary of the course	1
TOTAL DAYS IN LECTURE	41

Proposed Outline
Laboratory Portion

Each student is in a laboratory section two hours per week. In addition each student must review the video-tape of each of his teaching performances, outside of regularly scheduled class times.

Lab Number: Number of Hours:

1. Introduction to the micro-teaching facility 2

— An explanation of the process
— Identifying desired learning outcomes
— Using the AGDEX system

2. Field trip to a joint vocational school 8

— Analyze programs
— Analyze classroom teaching
— Analyze laboratory teaching
— Analyze FFA operation

3-4. First round of micro-teaching 4

Each student is to.
a) Begin a unit of instruction
1) Develop an interest approach
2) Develop group objectives
3) Establish problems and concerns

Following each student's micro-teaching
a) There is a group process critique
b) There is an in-depth critique by the teacher educator using the video-taped performance to diagnose problems
c) Appropriate remedies are prescribed

Each student must review the video-tape of their own teaching.

5-7 Second round of micro-teaching 6

Each student is to:
a) Solve one problem which would have previously been identified with the class
b) The same critique process as in the first round of micro-teaching is followed

Each student must review the video tape of their own teaching.

Lab Number:
8-10. Third round of micro-teaching 6

Each student is to:
a) Set up a unit of instruction
b) Help the class solve one problem
c) Summarize the unit
d) The same critique process as in previous micro-teachings is followed

Each student must review the video-tape of their own teaching.

TOTAL LAB HOURS 26

An Analysis of the Proposed Content

Note that the above content fits easily into a one-quarter format. However, this course can only develop basic understanding and abilities. This course must be augmented by carefully planned and directed field experience with master teachers. Also, these are only the basics and provide a sound foundation for one to continue to be a student of teaching. The greatest attention was focused on developing the demonstrated ability to plan for teaching using a sound basis for planning for learning. If this were for teachers recruited from business and industry only the Allen 4-step procedure for planning would be taught using the publication "Methods of Teaching Agriculture" by Newcomb.

STRATEGIES TO BE USED IN TEACHING A METHODS COURSE

Be a Model

The first requirement for effectively teaching a methods course is for the professor to be a masterful teacher himself. Therefore, one must teach as well as one expects the students to teach. Likewise one must plan as well as one expects students to plan. It is suggested that the teaching performance be examined by the students and that open analysis and discussion of the techniques be encouraged. Furthermore, the professor's lesson plans should always be available for students to study.

Use the Process Taught

In a more specific sense the professor ought to use the problem solving approach to teaching for several of the units in the course. Other approaches should also be used. All such approaches ought to be pointed out

and discussed. In addition, the professor ought to role-play the teaching of high school units using the Problem Solving Approach (PSA) to create concrete frames of reference.

Use the Methods Taught in the Course to Teach the Course

Clearly, as a part of "practicing what you preach," the methods professor should use each of the actual methods of teaching as one teaches the course. In the case of being a model teacher, using the Problem Solving Approach (PSA), and using the methods taught, a tandem approach is used, i.e. the method is used in conjunction with teaching the subject matter or content of the course.

Thus, if we propose to teach lecture-discussion as a method to be used in

rc
agri
strate how
used in class both to teach specific course content and demonstrate how to use supervised study in high school teaching. A good topic with which to use supervised study is "understanding the principles of learning," where students review a case study lesson plan and have to determine which principles of learning have been used. Supervised study can also be effectively used to learn about the method itself. Another good topic for supervised study is "identifying and using community resources in teaching." The best way to teach how to use a field trip is to use one or more as a part of teaching the methods course. Results of experiments on teaching ought to be used in the course. One should also role-play the use of at least one technical agriculture experiment as it might be conducted for high school teaching.

Note, however, that not only should these and other methods be used to teach the methods course, but they should also be masterfully used in the other undergraduate and graduate courses taught in the department.

Use Examples From the Field

Video-tapes of master vocational agriculture teachers are used strategically throughout the course. Their performance is analyzed with specific practices and procedures identified for use by students in the class.

Telelectures with leading teachers in the field are used to bring reality into the college classroom. This allows students to benefit from the suggestions of highly successful practitioners.

Additionally, each student must spend one day in the student teaching center prior to the beginning of the methods course. Additional visits to the student teaching center during the methods course are also required. During these field visits students are to further study and analyze specific teaching, planning, and program operation techniques.

Students also need the opportunity to view their peers' teaching. Furthermore, during the quarter in which students are enrolled in the methods class they should pay particular attention to the methods of teaching used by all of their professors during that quarter.

Use Student Notebooks

The proper use of student notebooks is crucial in teaching high schobl vocational agriculture. Therefore, we should not just teach undergraduates how to make use of these techniques in the conduct of the methods course. The students should be required to buy a certain type of notebook specifically for the methods course; use a common format for organizing the course; and the notebooks should be checked and evaluated as we profess it ought to be done in high school. Furthermore, techniques of using the notebook for learning ought to be used in the methods class.

Teach

A methods course must provide for students to apply that which they have learned by doing some teaching themselves. All of this should be aimed toward "getting ready" for student teaching where they will have 10-12 weeks for more extensive and intensive practice. As a part of micro teaching for a methods course students should ideally practice each of the methods studied but in the context of using other abilities as well (i.e. introducing a unit, quesioning, summarizing, using problem solving, etc.) Structured practice needs to continue during the period of student teaching.

Use Printed Materials

The methods course should make good use of available printed materials. Not only are there textbooks for the course, modules from the National Center and Heart of Instruction Series, and specific handouts; but there should also be emphasis on using available curriculum materials in planning for teaching. Another very helpful strategy is the use of sample lesson plans to create concrete frames of reference and to provide ideas regarding planning for learning.

Miscellaneous

Throughout the course [illegible] emphasize the use of questioning, gaining interest, achieving closure, etc. Student also need to be shown how to gain class participation and how to control student behavior. Another constant area of emphasis needs to be the use of the principles of learning, the use of change of pace, etc. No methods course can afford the luxury of focusing only on content; approach or technique must constantly be visible.

FORMATIVE AND SUMMATIVE EVALUATION for a METHODS COURSE IN AGRICULTURAL EDUCATION

The purposes of formative evaluation in an agricultural education methods course are to: 1) accurately assess what the students know about prerequisite content, 2) accurately assess what they know about the content of the course they are entering, 3) create a felt need and demonstrate the relevance of the content of the course they are entering towards meeting that felt need, and 4) provide the professor with a clear idea of how to best proceed with that particular class and with the specific individuals in the class.

Six forms of formative evaluation are appropriate. They are: 1) administer the final exam from Agricultural Education 200, 2) review performance ratings from Agricultural Education 280.01, 3) rate teaching plans from Agricultural Education 280.01, 4) administer a comprehensive pre-test for the content of the methods course, 5) have students submit a lesson plan for one class period, and 6) have each student teach a standardized lesson prior to specific instruction in the methods course.

An Explanation of the Proposal Scheme of Formative Evaluation

The final examination from Agricultural Education 200 would be taken with open notes. In addition to helping the student and the methods professor assess the student's current level of comprehension of the Agricultural Education 200 course this would also serve as a tool for assisting the student in "pulling together" the previous learning regarding teaching vocational agriculture.

Ratings and materials from field experience(s) would reacquaint the student with his level of development and provide the methods professor with a more specific appraisal of the class's quality of background experiences, thereby enabling him/her to teach to the demonstrated level of the class.

A comprehensive pre-test for the contents of the methods course would add to this baseline information. It could also help develop a felt need on the part of the students in the course. The same would be true with having the students develop a lesson plan and teach a standardized mini-lesson.

Process Evaluation

At various stages in the methods course there should be process evaluation. There should be quizzes at the conclusion of many units of the course and following assigned readings. Another form of process evaluation should be the preparation of parts of teaching units at the conclusion of the instruction as to how to plan various segments of a unit plan. This gives

continuous feedback and reinforcement to both the student and the professor. Likewise, once various stages of the PSA have been taught to the class, the students should practice those stages in the micro-teaching laboratory.

Summative Evaluation

Final product evaluation should take three forms. First students should submit detailed unit plans to demonstrate their mastery of the planning process. Second, there should be a "complete lesson" taught to show mastery of the teaching process. Finally, a comprehensive examination should be used to evaluate the crucial concepts of the course.

REFERENCES FOR A METHODS COURSE IN AGRICULTURAL EDUCATION

Author	Title
Bender, Hansen, Newcomb & Taylor	*The FFA and You*
Bender, McCormick, Woodin, Cunningham & Wolf	*Adult Education in Agriculture*
Dale, Edgar	*Audio Visual Methods in Teaching*, third edition
Future Farmers [illegible]	*Official Manual for Future Farmers of America*
Future Farmers Supply	*The FFA Advisor's Handbook*
Future Farmers Supply	*The Student Handbook*
Hammonds and Binkley	*Farming Programs for Students in Vocational Agriculture*
Hammonds and [illegible]	*Teaching Vocations*
Krebs, Alfred H.	*For More Effective Teaching*
Lancelot	*Permanent Learning*
Mager, Robert F.	*Preparing Instructional Objectives*
Mager, Robert F.	*Developing Vocational Instruction*
Newcomb, L. H.	"Teaching Vocational Agriculture" (mimeographed)
Phipps, Lloyd J.	*Handbook on Agricultural Education in the Public Schools*
The Ohio State [illegible] Curriculum Materials	*The Heart of Instruction Series*
Wilson, Richard H.	Methods of Student Evaluation (mimeographed)

Publication

The Americ[illegible] [illegible] [illegible]ociation, Washington, D.C.

The Agricul[illegible]

Phi Delta Kap[illegible]

The [illegible] P[illegible]

Topic Analysis for Vocational Teacher Education

Preparing To [illegible] To Develop Courses of Study [illegible] tional Agriculture

prepared by
J. David McCracken
Associate Professor
Department of Agricultural Education
The Ohio State University

Ohio Department of Education
Division of Vocational Education
Columbus, Ohio 43215

September, 1978

DAVID McCRACKEN is Associate Professor of Agricultural Education at The Ohio State University. Prior to his current position, Dr. McCracken was Research and Development Specialist and Assistant Director for Information Services at the National Center for Research in Vocational Education at The Ohio State University. He is a former high school vocational agriculture instructor. He received his Ph.D. degree in Agriculture Education, Research and Statistics and Vocational Education from The Ohio State University, his M.S. degree from Iowa State University. Dr. McCracken is President-Elect of Teacher Educators in Agriculture, Associate Editor of the *Journal of Vocational Education Research*, faculty representative in The Ohio State University Senate, and holds membership in: Ohio Vocational Association, Ohio Vocational Agriculture Teachers Association, National Vocational Agriculture Teachers Association, American Vocational Association, Phi Delta Kappa, and Gamma Sigma Delta.

PREPARING TEACHERS TO DEVELOP COURSES OF STUDY IN VOCATIONAL AGRICULTURE

NEED FOR COURSE OF STUDY INSTRUCTION

We have all been curriculum building — it began with a worry about how we were going to fill a class period — and appear halfway intelligent.[1] Not only should teachers appear "halfway intelligent" but students, parents, administrators, supervisors, advisory committee mem- s, employers, community leaders, and e[illegible] ject that there be a "planned content" for instructional program ational agriculture.

Lesnick[2] suggests that designing a curriculum is a type of enginee of applied science. Specification of what is to be learned has been prime requisite of curriculum design. Such specification may ra from a brief topical outline, often referred to in the literature as a cou of study to a detailed plan of everything that transpires in the planni teaching and learning environment in a vocational agriculture progra

The curriculum for any program must be based upon a "determinati of need" or "needs analysis." The curriculum for teacher education agriculture is no different. Is there a need for students of teaching to lea how to develop courses of study for programs of vocational agriculture?

Specification of what is to be included in a curriculum is normally based upon educational philosophy, the theory of the subject; advisory committee input, and results of occupational surveys. In vocational agriculture, we often examine occupational opportunity, student needs and interests, concerns of parents and community and school resources in establishing what is to be taught.

Shoemaker[3] has often said the "curriculum for vocational education starts with a job and ends with the student on the job."

"The initial step in the Instructional System Design (I S D) process seems rather obvious. If you want to prepare a young person to enter an occupation successfully, you must know what the occupation requires of the successful worker."[4] The same rationale applies to the occupation of teaching. Studies have been conducted to identify and document the professional education competencies needed by teachers of vocational agriculture. Many of the highest-ranked competencies in the area of program planning, development, and evaluation relate specifically to course of study development. The top ten competencies in importance as rated by vocational agriculture teachers out of a list of 33 were.[5]

1 Identify the competencies needed for entry into an occupation

2. Determine the occupations for which training is to be offered in the vocational agriculture program.
3. Assist in the indentification of the school's vocational agriculture purposes and goals.
4. Identify the skill, knowledge, and attitudes required for the performance of each task included in the vocational agriculture offering.
5. Assess the relevancy of the vocational agriculture offerings.
6. Analyze long-range needs for the offerings of the vocational agriculture program.
7. Describe the occupational standards of performance for each task in an occupation.
8. Collect occupational data from employers to identify vocation agriculture needs.
9. Recommend a vocational agriculture program based on findin of a community survey.
10. Assist in preparing the long-range program plans for vocation agriculture.

In addition, six of the highest-ranked professional competencies in th area of planning of instruction related in some way to course of study development. Results of occupational surveys of vocational agriculture teachers have consistently documented the need for teachers to be competent in developing local courses of study.

Even without the evidence provide by occupational survey results, one would logically expect teachers to be able to prepare a course of study for their instructional program.

> A course of study is a contributor to good teaching by providing a systematic outline for a teacher to follow. By using it, the teachers have a clear view of where they are leading the learner, and a roadmap of how to get them there. The most effective course of study is one that is developed by the teacher, since the teacher has a better realization of the needs of the students and the geographic area served.[6]

In addition to the value of a course of study in providing a "roadmap" for the teacher, it can also serve as an effective means of communicating information about the vocational agriculture program to others. Others who may be legitimately interested in instructional program content include administrators, teacher educators, supervisors, advisory council, parents and students.

A teacher of vocational agriculture is expected to develop a course of study to meet the occupational opportunities in the community. Without adequate preparation in the process of curriculum development, a teacher

may tend to rely on textbooks and available reference materials as a basis for what is taught.

The need for providing instruction to teachers in course of study development can be summarized as being consistent with our educational philosophy, theory of subject matter, advisory group input, and occupational survey results:

1. Preparing teachers to develop local courses of study is in keeping with the philosophy of vocational educators in agriculture. It is logical to expect teachers to plan the content of their instruction. We believe that courses of study should reflect the needs of the community. We desire the teacher be a professional agricultural educator for the school district.
2. The course of study should reflect the "theory of the subject." Instruction in course of study development should enable teachers to organize and apply their technical expertise in developing instructional content for vocational education in agriculture. The teacher education curriculum should also reflect the "theory of the subject" of teacher preparation. Teacher educators have traditionally taught instructional program planning as a part of the curriculum. Such instruction is considered to be necessary by the profession.
3. "Advisors" believe instruction in course of study development should be offered in teacher education. Input of advisory committees, state supervisors, local supervisors and teachers has consistently confirmed the need for teachers to have a working knowledge of a curriculum development process.
4. Occupational survey results indicate teachers regard course of study development as an important part of their occupation. Since they develop courses of study, they should be taught how to properly "engineer" their instructional content.

Instruction should be provided to enable learners to prepare a local course of study for vocational agriculture by:

1. Identifying and selecting the content for the curriculum based upon occupational surveys, and supervised occupational experience programs of students
2. Sequencing instruction using logical and psychological principles
3. Preparing a document in keeping with the Instructional System Design (I S D) model for vocational education in Ohio

Limitations and Delimitations

Course of study development is taught in both preservice and inservice courses. It seemed necessary to limit this paper to one or the other. Because the more general paper in course of study development in vocational education prepared by Carl Gorman and William Sutton,

seemed to emphasize inservice education, this discussion will relate to a preservice course. It should be recognized that students at the preservice level do not have a real situation, other than their student teaching center, which may be used in building a course of study. It should also be recognized that the preparation of students in course of study development is not the sole responsibility of the instructor in one preservice course. Students gain exposure and competence related to this area in early experience programs, methods courses, student teaching, beginning teacher programs, and graduate courses in curriculum development.

INSTRUCTIONAL OBJECTIVES

Instructional objectives provide a basis for formative and summ evaluation of learning by students in a course. Objectives for instructi course of study development relate primarily to the cognitive and affec domains. Performance objectives describe what a student is able to do result of instruction rather than only what has been taught. As outcome instruction in course of study development, learners will be able to:

I. Describe Curriculum Development Concepts
   - A. Identify Curriculum Principles in Vocational Education
   - B. Define Terms
   - C. Identify Components of a Course of Study
   - D. List Alternative Course Organization Patterns
   - E. Examine a Process of Curriculum Development

II. Prepare Introductory Material for a Course of Study
   - A. Describe the Community
   - B. Describe the School
   - C. Describe the Program
   - D. Describe the Facilities
   - E. Identify Occupational Opportunities
     1. Use results of an Occupational ...
     2. Plan for using Advisory Committees

III. Develop Program Objectives

IV. Obtain and Develop School and Department Policies
   1. Youth Organization
   2. SOEP Program
   3. Student Placement
   4. Student Evaluation
   5. Student Conduct
   6. Safety
   7. Supplies
   8. Adult Education
   9. Division of Time

B. Use Model Courses of Study/Curriculum Guides
C. Obtain Advisory Committee Input
D. Establish a List of Tasks to be Taught

IV. Develop a Sequenced Course Outline

A. Identify Prerequisites
B. Utilize Basic to Difficult Plan
C. Recognize Seasonal Constraints
D. Challenge Student Interests
E. Relate Schedule to Student Supervised Occupational Experience Programs
F. Schedule Laboratory Work
G. Allocate Instructional time
H. Allocate Content to Year of Instruction
I. Sequence the Content for Each Course
J. Organize the Task List in Sequence
K. Develop a Plan for Extended Service Instruction
L. Plan a Summer Program

V. Complete Agricultural Education I.S.D. Forms

A. Identify Classroom Instruction
B. Identify Laboratory Instruction

VI. Develop an Understanding of the Contents of a Completed Course of Study

A. Complete the Title Page
B. Write Acknowledgements
C. Prepare a Table of Contents
D. Self-Evaluate a Course of Study

OUTLINE OF COURSE CONTENT

Based upon the eduational philosophy of the author, the theory of subject matter in agricultural teacher education, the input of advisory and client groups, and the information from competency studies, the following content is deemed as needed by future teachers of vocational agriculture. Hours of class time are suggested, not including time needed for students to complete out-of-class assignments.

	Hours
Introduction to Curriculum Development	2
Importance of and Need for Course of Study Components of a Curriculum Plan Definition of Terms Instructional Models Alternative Course Organization Patterns Curriculum Types	

Use of Advisory Committees Use of Occupational Survey Results Community and School Resources Student Interests and Ability Teacher Expertise Program Constraints	
Program Objectives	1
School and Department Policies	1
Course Content	3
Resources Providing Sample Content Organizing What Is To Be Taught Time Constraints	
Sequencing	6
Theories Student Motivation Seasons Logic Occupational Experience Programs Laboratory Schedules Year of Instruction Outlining a Course The Summer Program	
I.S.D. Forms	2
Laboratory Classroom	
Extraneous Uses For a Course of Study	1
Public Relations Communications Justifying Needs	
TOTAL HOURS FOR A PRESERVICE COURSE	18

SELECTED INSTRUCTIONAL STRATEGIES

Because teacher education courses are normally offered in the university setting, the usual method of instruction is lecture-discussion. The need for "learning by doing" in a course on curriculum development might indicate

to assist students in making decisions about course of study development.

Lecture

The lecture method is used when it is necessary to present information. This method is primarily used in the introductory session and in presenting procedures and examples.

Lecture-Discussion

Lecture-discussion is the primary instructional strategy. It involves presentation of material, use of questioning, and discussion of models and examples.

Workshop

Workshop settings are used [redacted]arners in similar instructional program areas to cooperatively develo[redacted]erials for use in their courses of study. This method enables the shar[redacted] of expertise and creative ideas.

Supervised Study

This method enables the instructor to utilize coaching to answer questions and evaluate student progress. By reviewing the work as it is being prepared, and assisting students during "teachable moments," it is believed that learning is enhanced.

EVALUATION STRATEGIES

Formative evaluation of student progress is conducted to ascertain needed adjustments in instruction during the course. Summative evaluation is conducted to establish the degree to which course objectives were accomplished at completion.

Formative Evaluation

Formative evaluation may be formal and/or informal. Formal evaluations include quizzes and portions of a course of study prepared for review by the instructor. Consistently missed questions on quizzes are re-taught by the instructor. Portions of the course of study are revised following critique by the instructor.

Summative Evaluation

Student achievement of objectives is evaluated in two ways. The major portion of the grade or final achievement rating is determined by an assessment of a course of study prepared by the learner. A relatively small

REFERENCE LIST

[1]Purves, Alan C. "The Thought Fox and Curriculum Building" in Schaffarzick, Jon and Hampson, David H., ed. *Strategies for Curriculum Development* Berkeley, Calif.: McCutchan Publ. Corp. 1975, p 106.

[2]Resnick, Lauren B. "The Science and Art of Curriculum Design" in Schaffarzick, Jon and Hampson, David H., ed. *Strategies for Curriculum Development* Berkeley, Calif.: McCutchan Publ. Corp. 1975.

[3]Shoemaker, Byrl "Curriculum for Vocational Education" Columbus, OH: State Department of Education, Division of Vocational Education, Unpublished paper, n.d.

[4]Shoemaker, Byrl R. *An Instructional System Design for Vocational Education* Columbus: The Ohio State University, Division of Vocational Education Instructional Materials Laboratory, 1976, p. 24.

[5]Moore, Eddie A. and Bender, Ralph E. *Professional Educational Competency Needs of Three Groups of Vocational Agriculture Teachers in Ohio* Columbus: The Ohio State University, Department of Agricultural Education, 1975, p 17.

[6]*Ohio Agricultural Education Study Guide: Course of Study* Columbus: State Department of Education, Division of Vocational Education, n.d. p 23.

BIBLIOGRAPHY

*Course of Study Planning Sheets, Columbus: The Ohio State University: Ohio Agricultural Education Curriculum Materials Service n.d.

Curriculum for Graduate Program to Prepare Vocational Education Curriculum Specialists. (VCES) Pullman: Washington State University, Department of Education n.d.

Gagne, Robert M. *The Conditions of Learning* New York: Holt, Rinehart and Winston, Inc., 1977.

Giachino, J.W. and Gallington, Ralph O. *Course Construction in Industrial Arts, Vocational and Technical Education* Chicago: American Technical Society 1967.

Lawson, Milton E. *Teaching Related Subjects in Trade and Industrial and Technical Education* Columbus, Ohio: Charles E. Merrill Co. 1972.

*McCracken, J. David and Bartsch, Bruce. *Developing Local Courses of Study in Vocational Agriculture* Columbus: The Ohio State University, Ohio Agricultural Education Curriculum Materials Service. 1976.

McCracken, J. David and Yoder, Edgar P. *Determination of a Common Core of Basic Skills in Agribusiness and Natural Resources.* Columbus: The Ohio State University, Department of Agricultural Education 1975 (final report with 29 appendices).

Occupational Survey Tasks Lists, Unpublished mimeo material for each taxonomy area. 1975.

*Ohio Agricultural Education Course of Study or Curriculum Guide (by Taxonomy area) (most recent issue). Available from Ohio Agricultural Education Curriculum Materials Service.

Ohio Agricultural Education Study Guide: Course of Study Columbus, OH: State Dept. of Education, Division of Vocational Education, n.d.

Ohio Occupational Analysis information available from Trade and Industrial Education Instructional Materials Laboratory, The Ohio State University, Columbus.

Performance Content for Job Training, Vols. 1 through 5 Columbus: The Ohio State University, The Center for Vocational Education. 1977.

Phipps, Lloyd J. *Handbook on Agricultural Education in Public Schools.* Danville, Ill: The Interstate 1972.

Schaffarzick, Jon and Hampson, David H. ed. *Strategies for Curriculum Development* Berkeley, Calif.: McCutchan Publ. Corp. 1975.

Shoemaker, Byrl R. *An Instructional System Design for Vocational Education* Columbus: The Ohio State University, Division of Vocational Education Instructional Materials Laboratory, 1976.

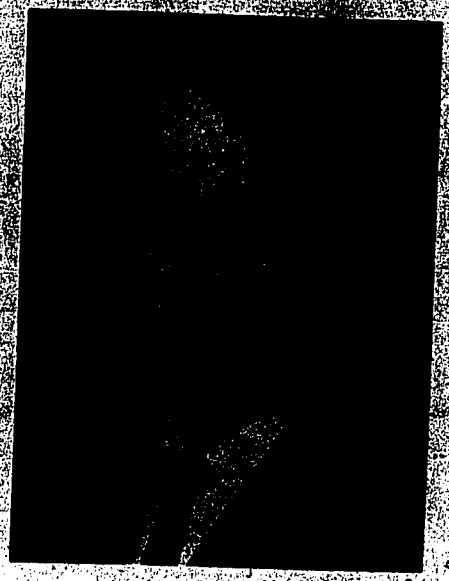
*Materials to be purchased by students.

Pre-Service Field Experience as Preparation for Teaching

Prepared by
Leon Boucher
Professor
Department of Agriculture Education
The Ohio State University

Ohio Department of Education
Division of Vocational Education
Columbus, Ohio 43215

September, 1978



LEON BOUCHER is Professor of Agricultural Education at The Ohio State University. His vocational agriculture teaching experience includes secondary youth and adult education classes. He served two years as United States Consultant in Agricultural Education at Bhubaneswar, India from 1964-1966. In 1976, he served as external examiner in Agriculture Education at Njala University in Sierre Leone, Africa. Dr. Boucher is Past-President of The Ohio Vocational Agriculture Teachers Association and Past President of Gamma Sigma Delta Agricultural Honorary. He is a member of the Ohio Vocational Association and the American Vocational Association.

CLINICAL AND EARLY EXPERIENCES

The History

The development and acceptance of educational psychology in the late 1800's with its emphasis upon the learner, the learning process, and teaching method, resulted in required field experience as a part of teacher preparation. The Ohio State University required future high school teachers to do practice teaching beginning in 1908, as a result of the field experience movement.

The National Council for the Accreditation of Teacher Education was formed in 1956. A 1957-58 survey showed that 204 accredited teacher preparation institutions required an average of ten quarter hours of student teaching.

Recent trends indicate an almost universal acceptance of student field experiences as a part of teacher education, allowing student teaching to be the center of the professional education core. The move is toward full-time student teaching; more off-campus student teaching; more credit hours earned for student teaching and other field experiences; longer student teaching assignments; the upgrading of standards; more and higher quality supervision; and increased research activities in student teaching.

The Rationale

Supervised clinical experiences can set the pattern for professional performance that continues to emphasize both scholarship and teaching and provides a bridge from theory to practice. Success of the student during this period of scholarly development is vital to later success in teaching. High academic scholarship does not insure teacher success; it remains for the clinical experience program to help the scholar become a teacher. Clinical experiences should be a part of, not apart from, the total program of preparation for teaching.

A 1975 Indiana study by Elliott reported two major conclusions pertaining to early experience. (1) Pre-student teaching university directed field experience should be an integral part of the teacher education curricula. (2) Pre-student teaching field experiences should include a minimum of sixty hours.

Lowery, of Michigan State University, 1974 found early experience does aid students in making decisions to continue or discontinue elementary teacher certification programs and, the more experiences one has with students, the greater his or her self-stated motivation for teaching. These studies indicate early experiences aid in self-evaluation and in selective retention.

Participation in clinical experiences includes individual cases or problems involving the application of principles and theory in teaching and learning. Through clinical experiences under the direction and supervision of experienced faculty in a college or university laboratory setting, the teacher education student should be involved in the use of diagnostic teaching instruments and observational techniques to enable an analysis of pupil learning progress or difficulties, on both an individual and group basis, and prescriptions of instructional strategies, educational media, and materials that maximize pupil learning outcomes.

Pre-Student Teaching Experiences

Approximately three fourths of the teacher preparation institutions in the North Central Association provide pre-student teaching field experiences for secondary education majors. The Ohio Standards for Colleges or Universities preparing teachers states, "The clinical and field-based experiences for teacher education students shall be: (1) an integral part of the teacher education curriculum, commencing early therein and continuing in a sequential manner; (2) related to school age youth; and (3) equivalent in time to one full quarter in addition to the student teaching experience." This standard allows for both in school and out of school experiences with school age youth. It also allows for the programming of summer experiences as well as experiences during the academic year. The minimum amount of time required allows for field experiences in more than one school which appears desirable.

Early experience programs should provide career exploration opportunities prior to the time career decisions are necessary in the college program. Performance in these activities *should* assist in assessing one's potential for teaching. The problem of identifying the students early in their college career still persists even though the value of early field experiences is documented by student teachers.

The early experience program should be individualized to provide for the development of competent teachers. The experience program should include a variety of school and student experiences. Academic credit for early experience could be awarded up to the amount given for student teaching. Some suggested experiences could be identified in each of the following areas:

- General School Activities
- Classroom Management
- Instructional Materials
- Occupational Experience Programs
- Youth Organizations
- Extended Service
- Continuing Education
- Community Activities
- Advisory Committees
- Professional Activities
- Others

Early experience could also be provided with community agencies relating to the students area of interest or need. Some examples of such agencies could be: The Cooperative Extension Service, Soil Conservation Service,

INSTRUCTIONAL OBJECTIVES

A. Clinical and Field Based Experiences

The pre-student teaching clinical and field based experiences previously identified could be more effectively provided if the following practices were implemented:

1. Design, develop and implement survey instruments to gather data characterizing school, agency and other potential clinical and field based experience options.
2. Provide access to diverse clinical and field-based options wherein students can derive optimal experiences.
3. Utilize an advisory committee consisting of school and agency personnel to guide the development of clinical and field based options.
4. Develop a communication system identifying and publicizing available options to students.
5. Implement a system to assist faculty in matching student and program needs with field based options.
6. Develop and implement a formative and summative evaluation process.
7. Conduct an in-service program for professional improvement of cooperating teachers.

It is important to recognize that democratic education, available to everyone, does not mean identical education for everyone. The idea that democracy means uniformity, or that the recognition of differences is incompatible with democracy is a fallacy that could distort our thinking. It could be detrimental to eliminate the regard for individual differences. It would be more appropriate in planning clinical and field experiences to discover ways of tolerating, encouraging and gaining enrichment from diversity. All education should be rooted in a basic respect for the individual human being. It is most important that the early experience courses or program be arranged in a coherent and sequential manner and applied to individual cases as much as possible.

INSTRUCTIONAL STRATEGIES FOR CLINICAL AND EARLY EXPERIENCES

A Pre-Service Program that provides early experience in different taxonomies constitutes a problem of cooperating teacher preparation. It is necessary that any teacher providing early experiences would need to understand the early experience program. A one on one relationship for

service seminars in each of the four corners of the state to prepare cooperating teachers for early experience students. By taking the seminar out in the state, the cost of travel and per diem would be for one man rather than having 80 to 100 teachers driving to the University for the seminar.

A. Strategies of the pre-student teaching or early experience program that needs to be programmed into a coherent and sequential set of experiences could include the following:

1. The clinical experiences should be moved off-campus into a school and community setting as soon as the student can function positively in the educational arena.
2. The pre-student teaching, clinical experience should be based upon the needs of the individual student and tested against established criteria of excellence.
3. The experiences should begin early in the student's professional preparation program and continue in a sequential pattern of increasing difficulty and responsibility.
4. There must be a practical and continuous means of cooperation between the university education faculty and the secondary school teachers and administration.
5. A planned program of assessment, observation and evaluation of college students involved in early experiences must be evident.
6. Continuous joint planning and evaluation of pre-service activities must be performed by the two agencies, the University and the school.

STUDENT TEACHING

Before a person receives a motor vehicle driver's license, he or she must not only know the driving rules and regulations, but must drive the vehicle. Student teaching is the practice or practical experience the prospective teacher experiences in completing the requirements for a teaching license.

The teacher education student should participate in a series of planned, supervised and evaluated field-based experiences. These experiences should contribute to increased proficiency in performing the various teaching responsibilities under actual school conditions.

Considerable variation prevails among teacher education institutions as to the characteristics of the student teaching programs. The trend has been to offer such preparation in increasing amounts of off-campus schools as settings for "hands-on" experience for prospective teachers. Assignments of student teachers for full-time work in schools with the student teacher expected to follow the regular teacher schedule is becoming quite common. Several teacher training institutions throughout the nation only require six

[illegible] of experience. It is very probable, institutions may add some internship experience following student teaching or graduation.

It would be economically desirable to protect the manpower investment of preparing competent teachers by contracting for internships for those students graduating Autumn or Winter quarters. Many of the Autumn and Winter graduates are employed by business and industry and are not available for teaching. A legislature or state department of education grant should be appropriate to retain the most competent of the graduates in teaching internships in critical areas of need.

INSTRUCTIONAL OBJECTIVES

Teachers generally cite student teaching as the most valuable part of their professional preparation. Critics of teacher education argue for deletion of various items in the preparation program but never for the deletion of student teaching. The quality of the experience will be dependent upon the understanding, interest and effort of the cooperating teacher and the desire and motivation of the student teacher along with the continual observation and evaluation of the teacher educator. Some behavioral objectives of student teaching contributing to adequate preparation for the profession could be; the student teacher:

- Combines philosophies of agriculture and education with knowledge of today's society in forming professional beliefs.
- Has developed and uses an educational philosophy in decision-making as a teacher.
- Assumes responsibilities and practices a code of ethics appropriate to the professional role.
- Is aware of educational trends and implications that have relevance for the agriculture taxonomy program.
- Utilizes information about the learners, their homes, the community and the larger society in planning agricultural programs.
- Organizes taxonomy offerings into a sequential and integrated pattern to meet needs of learners.
- Plans agricultural programs which will contribute to the total educational goals.
- Selects and directs a variety of learning experiences appropriate to the achievement of objectives.
- Establishes and maintains a classroom climate which facilitates learning.

cess.

— Utilizes motivation of learner in carrying out an instructional plan.

— Engages in practical classroom experimentation.

— Utilizes the youth organization to develop desirable human relation attributes, including attitudes, interests, appreciations, and skills.

COURSE CONTENT

Content within a student teaching program of experiences could vary according to the discipline, the student and the state certification requirements. Some suggested commonalities that ought to be considered in most student teacher programs are:

1) Planning instruction for secondary school programs
2) The teaching of high school classes in the related and laboratory settings
3) Evaluation of student performance
4) The use of occupational experience programs in the decision making process
5) Guidance experiences in determining individual student differences
6) Youth organizations as a part of instruction
7) Physical facilities for specific taxonomy programs
8) Teaching adult classes
9) School community relations
10) Program planning processes and techniques
11) Professional role and development of a teacher
12) Extended service activities and reports
13) Use of instructional materials and teaching aids
14) Guiding students toward desirable behavior
15) Others

It would be most desirable to develop a list of professional performance activities within each of the above suggested areas. A sample has been included in the appendix.

developed by the cooperating teachers, school administrators, teacher educators and teacher education students.

The selection of cooperating teachers should be based upon identified criteria. Cooperating teachers providing student teacher experiences should be well selected and well trained for this most important aspect in teacher preparation. Every potential cooperating teacher should enroll in a teacher education course or courses designed to prepare the cooperating teacher for that job. It is necessary that cooperating teachers be provided in-service seminars to up grade their skills in working with student teachers. A cooperating teacher seminar early in the quarter would help provide continuity and uniformity to the student teacher program.

INSTRUCTIONAL STRATEGIES

Challenges facing those who work with student teachers today are greater than ever. It is encouraging that some departments of education and teacher education institutions are directing efforts and funds to the upgrading of minimum standards for teacher preparation.

Strategies for conducting meaningful and rewarding student teaching programs should be identified preferably by a team effort of those involved. In the past, the university teacher education faculty generally prescribed and programmed the student teaching experience. Education is becoming a more and more shared responsibility. In the varied environments and complexity of school systems, judgements and decisions are made by concerted efforts of many people. Participation in evaluating and designing educational policies and programs is expected, and even demanded, by students in teacher education institutions. Creative efforts and action by those involved might lead to new pathways and patterns for the future.

Concern should be given by institutions and personnel involved in student teaching with many of the following strategies as a means of conducting and upgrading the teacher preparation program.

Strategies for Conducting Student Teaching Programs

1. There should be written agreements between the institution preparing teachers and the cooperating school district. Items to be considered would include activities, services, and compensation. Roles and responsibilities should be identified and provision for solving problems or revising the program should be agreed upon. Professional development programs for cooperating teachers should be identified and supported by all parties.
2. An advisory committee of interested groups involved with teacher preparation should be organized to advise on the design and development of teacher education programs including criteria, policies and procedures.
3. A recruitment committee and program should be identified to encourage enrollment of individuals with high potential for teaching.

4. Student assessment procedures should be implemented according to criteria adopted by the governing body of the department, college or university. The criteria should cover student characteristics contributing to pupil growth and development, as well as tolerance and understanding of individual differences.

5. Criteria for the selection of cooperating schools should be identified and applied in a constructive assessment plan by representatives of teacher training institutions and cooperating schools, including administrators, supervisors, and teachers.

6. Student teacher placement should be coordinated and contribute to professional course work, student attributes and differences, and be agreed upon by the institutions and personnel involved with student teaching.

EVALUATION

Educational evaluation is a process in which a teacher commonly uses information derived from many sources in order to arrive at a value [illegible]

Many [illegible] his [illegible]eral appraisal is commonly called e[illegible] [illegible] evidence of all significant changes in teacher [illegible] dent growth. Knowledge, skills and understanding can be [illegible] but attitudes and appreciations lend themselves more to estimation. Student evaluation should be made in terms of the objectives of the program.

Formative evaluation generally consists of personality tests and listings of high school experiences as well as occupational experience. Some disciplines in vocational education utilize competency tests related to the technical area to be taught.

More emphasis should be directed at formative evaluation procedures as a means of identifying career opportunities compatible with personal interests and aptitudes.

Much has been done on summative evaluation in teacher preparation. Some guidelines to be considered in student teacher evaluation could be:

1. The purpose of evaluation is to promote growth.
2. Evaluation should be continuous throughout the field experience.
3. Evaluation involves appraisal of agreed upon goals.
4. Evaluation is a two way dialogue between the student and those concerned with the program.
5. Both quantitative and qualitative evidence should be utilized in a variety of techniques for recording and interpreting behavior.

Undoubtedly there are almost as many formats as there are evaluators. One of the more complete formats has been developed by G. B. Redfern, 1963.

Summary of the Appraisal Process

Step 1 Pre-Appraisal Conference

This step should set the stage as to what will be expected by the evaluator. The student teacher identifies methods to be used along with intended learning strategies.

Step 2 Establishment of Teaching Objectives

The student teacher notes subject matter being taught as well as the teaching objectives to be presented.

Step 3 Observation of Teaching

The evaluator should simply observe and record what actually happens during the teaching episode. Every effort should be made not to reach any judgement at this time.

Step 4 Appraisal of Teaching

The evaluator analyzes the teaching performance from all available information. This must take place on an individual basis in order to prevent decisions being influenced by others

Step 5 Prepari[illegible] for Appraisal Conference

The evaluator plans the needed approach. Suppo[illegible]ation may be gathered when needed. A strategy for [illegible]ent of suggestions can be formulated.

Step 6 Student Teacher Self-Appraisal

This step will give the evaluator much information as to the awareness and judgement of the student teacher. It is a starting point where the student teacher reflects on his/her own performance.

Step 7 The Appraisal Conference

After the student teacher has gone through a self-analysis, the evaluator should identify the positive aspects of the teaching episode. Next comes the areas of needed improvement. The evaluators will be more effective if they emphasize questioning and *listening*.

Step 8 Post Appraisal Action

At this time, definite means of improvement will be agreed upon. The evaluator identifies specific problem areas and suggests ways of correcting the problem. This step should include new areas into which the student teacher is to proceed. The key here is that specific action must be identified to be implemented.

A list of possible evaluative situations occuring in student teaching:

1. At the end of a days performance
2. At the conclusion of a teaching unit

3. Inventory of student teaching traits
4. During review of the lesson plan
5. After observation of the cooperating teacher's lesson
6. A specified time each week
7. After any assigned responsibility
8. Quarterly or mid-term evaluation
9. Group evaluation during student teacher seminar
10. Self-evaluation on a performance

Several evaluative forms are included in the appendix.

Summary

The bottom line should result in a competent professional person.

1. This individual would possess a body of specialized skills and knowledge related to his/her profession.
2. Would be responsible for the consequences of his/her actions and action.
3. Would actively participate with colleagues in developing and enforcing standards contributing to the improvement of the profession and would abide by the professional code of ethics.
4. Would practice the profession as their major contribution to society.
5. Would place primary emphasis on service to society rather than personal gain.
6. Would participate in a professional improvement program searching for new knowledge and skills.

APPENDIX A

CRITERIA TO BE CONSIDERED IN SELECTING COOPERATING TEACHERS AND COOPERATING SCHOOLS

TEACHERS	Date to be Implemented
1. The teacher accepts the responsibility for training student teachers as indicated by:	
Willingness to establish a schedule of five hours per week which is beyond the time required to conduct the regular vocational agriculture program. During part of this time, the cooperating teacher will check all lesson plans prior to each class taught by the student teacher and critique the teaching performance.	_____
2. The teacher has participated in the required professional education course work to qualify him as a cooperating teacher.	_____
3. The teacher has had successful teaching experience and possesses a willingness to improve professionally as indicated by:	
a. Having completed at least two years of successful teaching experience.	_____
b. Has a valid Ohio Teaching Certificate in his area of specialization.	_____
c. Participation in a continuing planned professional improvement program which would include credit and/or non credit in-service training activities.	_____
4. The supervising teacher is certified in the specific taxonomy area desired by the student teacher.	_____
5. The teacher can motivate students as indicated by:	
a. The scope of the occupational experience programs.	_____
b. Having a superior rating in the National Chapter Contest.	_____

TEACHERS (cont.)

Date to be Implemented

c. Having a majority of the students placed in the occupation for which they are trained. _____

6. The teacher shows an interest in students as individuals and makes an average of four supervisory visits per student per year. _____

7. The teacher is a professional individual in the teaching ranks as indicated by:

   a. Membership in professional teacher organizations. _____

   b. Participation in local, county, and district meetings and activities. _____

   c. Promptness in submitting reports and other information such as:

      1) Occupational experience reports. _____

      2) Final departmental reports. _____

      3) Time and travel reports. _____

      4) FFA Award applications. _____

   d. Punctuality in meeting appointments. _____

   e. Having good rapport with other faculty members. _____

8. The teacher has desirable personal characteristics such as:

   a. Ability to inspire others
   b. Consideration for individuals
   c. Ideas
   d. Initiative
   e. Promptness
   f. Tact
   g. Sense of humor
   h. Enthusiasm
   i. Professionalism

TEACHERS (cont.)

	Date to be Implemented
j. Ability to organize	
k. Self-control	
9. The teacher is considered an excellent classroom teacher.	
10. The teacher has desirable teaching behaviors such as:	
a. Varies his/her teaching technique	
b. Clarity	
c. Enthusiasm	
d. Businesslike behavior	
e. Accepts students' ideas	
f. Pupil-centered behavior	
g. Positive rewards	
h. Providing a moral and intellectual model	

PHYSICAL FACILITIES AND INSTRUCTIONAL MATERIALS

The following physical facilities shall be provided in conducting the program in a cooperating school.	CHECK (✓)
1. The classroom, office, shop, or laboratory space must meet the minimum standards as listed in the Manual of Operation.	
2. The equipment must meet the minimum standard as found in the Manual of Operation and the Curriculum Guides.	
3. The following instructional aids are available for use when needed:	
a. Slide and filmstrip projector	
b. Overhead projector	
c. Sixteen millimeter projector	
d. Record player	
e. Tape recorder	
f. Screen	

PHYSICAL FACILITIES EQUIPMENT AND INSTRUCTIONAL MATERIALS (cont.)

CHECK (✓)

4. The Instructional Materials Library will have an inventory of student study manuals, bulletins, audio-visual materials and textbooks to support all areas of the planned curriculum. _____

   a. Outdated instructional materials should be discarded. _____

   b. An adequate annual budget shall be provided to keep the Instructional Materials Library updated. _____

   c. One source of instructional materials shall be the Ohio Agricultural Education Curriculum Materials Service. The following catalog shall be available:

      1) *Ohio Curriculum Materials* listing materials produced by the Ohio "Service." _____

      2) *Tools for Teaching* listing materials from many sources that may be purchased through the Ohio "Service."

      3) Teaching Aids listing the AAVIM mechanics materials that may be purchased through the Ohio "Service." _____

5. The department facilities are adequately maintained, effectively used, and kept in a neat and orderly manner. _____

6. School transportation is available for field trips. _____

7. The AGDEX filing system is installed and used as a means of classifying, filing, and retrieving curriculum materials. _____

COURSE OF STUDY

CHECK (✓)

1. The course of study is based upon an analysis of occupations for which the training program is designed. _____
2. It identifies student performance objectives based upon tasks to be learned. _____
3. It provides for related instruction, laboratory, and on-job experiences. _____
4. It utilizes instructional material and community resources. _____
5. It provides for leadership, citizenship, and personal development through FFA as an integral part of the instructional and experience program. _____
6. It provides for complete and accurate records based on the student's occupational experience. _____
7. It provides for periodic evaluation of the student's progress. _____
8. It provides for instruction and student supervision throughout the entire length of the program according to standards adopted by the State Board of Education. _____
9. It is evaluated by the teachers and reviewed annually by a local advisory committee. _____

COOPERATING TEACHER AND SCHOOL CRITERIA

1. A written plan is available of teacher division of responsibility in multiple teacher departments and there is evidence of planned and regularly held departmental meetings.
2. Written stated policies for the Vocational Agriculture Department include: (Examples:)
   a. Use of facilities

48

COOPERATING TEACHER AND SCHOOL CRITERIA (cont.)	CHECK (✓)
b. Use of tools	
c. Occupational experience programs	
d. Student fees, etc.	
e. FFA membership	
3. The cooperating school provides the student teacher the opportunity to advise the FFA as an integral part of the total vocational agriculture program.	
4. The department has a written plan to carry out effective summer programs.	
5. Provision is made for review of plans pertaining to the department, school, and community. (Examples:)	
a. Five year plan — with goals and projections	
b. Job opportunities in agriculture and related fields.	
c. PRIDE reports and recommendations in graduated follow-up	
d. Placement information.	
SCHOOL ADMINISTRATION	
1. A letter has been directed to the school administration requesting a cooperating center be established, which when approved, will meet program minimums as stated in the criteria for establishment of a cooperating center or efforts will be directed to attaining the criteria.	
2. Members of the school administration will provide time to counsel with student teachers.	

SCHOOL ADMINISTRATION (cont.)

CHECK (✓)

3. The school administration is willing to accept the student teacher basically as a professional. _____

4. The school administration will provide released time for the cooperating teacher for such activities as;

   a. Professional meetings. _____

   b. In-service educational activities relating to the conduct and administration of the student teaching program. _____

5. Student teachers will be placed for training upon approval of the school administration and cooperating teacher. _____

6. The local advisory committee will be informed of and react to the student teacher program in the school.

COMMUNITY RELATIONS

1. The vocational agriculture program is coordinated with other agricultural agencies as evidenced by cooperation and contact with major agricultural agencies in the community.

2. The community is kept informed of the agricultural education program as evidenced by full use of opportunities offered by newspapers, radio, television, displays, and programs presented.

3. Occupational information is generated through surveys and made available to students.

STUDENTS

1. Students are pursuing occupational experience programs with records showing a minimum of 200 hours for 9th and 10th graders in a four year program and a minimum of 540 hours for 11th and 12th graders in all programs.

STUDENTS (cont.)

	CHECK (✓)
2. Notebooks are being kept by students indicating skills learned and technical information secured in class and laboratory.	_____
3. Students are enrolled as a result of testing programs, interviews, and home visitations.	_____

CONTINUING EDUCATION

1. The cooperating teacher shall conduct or provide for an organized program of continuing education consisting of at least 20 hours of classroom instruction with individual follow-up instruction.	_____
2. A planning and/or advisory committee will be utilized with the program.	_____
3. The cooperating school must provide the student teacher opportunity to plan and conduct two adult classes.	_____
4. The cooperating teacher must provide the student teacher the opportunity to make adult visits.	_____
5. The cooperating school must provide the student teacher in production agriculture experiences with an organized Young Farmer Program at the cooperating center or in a nearby Young Farmer Program.	_____

APPENDIX B

SUGGESTED GUIDELINES FOR ORIENTATION OF STUDENT TEACHERS

A good student teaching experience begins with orientation. The items suggested are only a guide to be briefly discussed to help plan for the student teaching experience. *This is only a guide and should not be used as an evaluation.*

	(Mark an "X" when discussed) Early Experience (A)	Student Teaching (B)
I. School		
1. Introduction to administration & staff	_____	_____
2. Organization chart of the school system	_____	_____
3. School policies and/or faculty, student handbook	_____	_____
4. Communication channels open to teachers	_____	_____
5. Teacher conduct	_____	_____
6. Use of building after school	_____	_____
7. Use of telephone (long distance)	_____	_____
8. Hours of the staff	_____	_____
9. Securing permission for special activities (field trips, assemblies)	_____	_____
10. School travel policy (Teacher, class)	_____	_____
11. Departmental budgets. How supplies are secured	_____	_____
12. Class schedule	_____	_____
13. School schedule	_____	_____
14. Disciplinary procedures	_____	_____
15. Introduction to counseling staff, department chairman	_____	_____
16. School facilities (tour of high school, locate elementary schools, parochial schools, and junior high schools)	_____	_____
17. Staff morale and professionalism	_____	_____
18. Student records (use policy)	_____	_____
19. Custodial staff	_____	_____
20. District map	_____	_____
21. Characteristics of the district, valuation, taxation	_____	_____

	(Mark an "X" when discussed) Early Experience (A)	Student Teaching (B)
II. Community		
1. Predominant farm, agricultural and service organizations		
2. Numbers and kinds of related agricultural businesses		
3. Cooperating community and agricultural agencies		
4. Perceived staff morale and educational ethics		
5. Support of operating series		
6. Student teacher housing		
7. Area maps, district boundaries		
8. Churches		
III. Vo-Ag Department		
1. Size, composition (age, interest, sex, abilities, occupational programs)		
2. Facilities (room, land lab, equipment, laboratory, office space, desk, chair, telephone, file cabinets available)		
3. Instructional materials (audiovisuals and printed material)		
4. Placement of graduates		
5. The five year plan (LEAP)		
6. Advisory committee. Who? Why? Role? Meeting Dates?		
IV. Program		
1. Course of study		
2. Nature of Occupational Experience Programs		
3. Who is involved in Occupational Experience		
4. Teachers role in Occupational Experience Programs		
5. Types of important teaching activities that have been successful (i.e., school fair, etc.)		
6. FFA Offices, Program of Activities		
7. FFA meeting time and place, meeting planning, seekers of advanced degrees		
8. Adult education programs		

	(Mark an "X" when discussed) Early Experience (A)	Student Teaching (B)
V. Teaching		
1. Selection of units for student teacher		
2. Observation of classes (vo-ag and others)		
3. Preparation of lessons		
4. Review of lesson plan by cooperating teacher		
5. Securing teaching aids and supplies		
6. Learning names of the students		
7. Works with individual students and small groups		
8. Share routine teacher tasks		
9. Takes roll and records attendance		
10. Assists with pupil groups, such as homeroom and student organizations		
11. Observing other outstanding teachers in the school		
12. Discuss the work of the support staff, school nurse, reading specialists, media specialists, etc.		
13. Prepares a bulletin board		
14. Operates media equipment such as motion picture projector, filmstrip projector, overhead projector		
15. Locates reference material		
16. Uses reproduction equipment such as spirit duplicator, mimeograph machine, and copier		
17. Administers and scores a short classroom test		
18. Evaluates homework and other assignments		
19. Reviews the teacher's summer program of activities		
20. Advising the FFA		
21. Teaching young farmer and adult classes		
VI. Occupational Experience Program		
1. Justification of occupational experience		
2. Assignment of eight students to student teacher		

	(Mark an "X" when discussed) Early Experience (A)	Student Teaching (B)
3. Making instructional visits of employers, young and adult students		
4. Selecting supervised occupational experience programs		
5. Checking occupational experience recordbooks		
VII. Professional Responsibilities		
1. The local teacher's association		
2. County, state and national teacher's association		
3. Specialized education associations (i.e., vo-ag teachers)		
VIII. Cooperating Teacher		
1. Expectations of the student teacher and himself		
2. Technical preparation — experience — attitude		

APPENDIX C

Form FEB

TRAINEE EVALUATION REPORT
VOCATIONAL AGRICULTURE EXPERIENCE
Department of Agricultural Education
The Ohio State University

Scale
E = Excellent
G = Good
A = Average
F = Fair
P = Poor

Trainee's Name _____ Date _____

Evaluated by _____ Title _____

Training Center _____

Evaluation (Circle the appropriate letter)	Criteria	Comments
E G A F P	1. PERSONAL CHARACTERISTICS	
e g a f p	Appearance	
e g a f p	Ability to meet people	
e g a f p	Maturity	
e g a f p	Initiative	
e g a f p	Self-confidence	
e g a f p	Tact	
e g a f p	Attitude toward teaching	
E G A F P	2. TEACHING HIGH SCHOOL STUDENTS (Include planning and conducting classroom, laboratory and shop instruction)	
	A. Classroom	
e g a f p	Awareness of student needs	
e g a f p	Ability to plan	
e g a f-p	Class teaching	
e g a f p	Arouse and maintain interest enthusiasm	

Evaluation	Criteria	Comments
(Circle the appro-Priate letter)		
e g a f p	Use of questions	
e g a f p	Summarize conclusions	
e g a f p	Maintain discipline	
	B. Lab	
e g a f p	Demands quality workmanship	
e g a f p	Awareness of student needs	
e g a f p	Ability to plan	
e g a f p	Class teaching	
e g a f p	Arouse and maintain interest enthusiasm	
e g a f p	Use of questions	
e g a f p	Summarize conclusions	
e g a f p	Maintain discipline	
E G A F P	3. PROVIDING FOR OCCUPA/ TIONAL EXPERIENCE	
e g a f p	Planning	
e g a f p	On-the-site teaching	
e g a f p	Relating instruction	
e g a f p	Record keeping	
E G A F P	4. ADVISOR OF THE YOUTH PROGRAM	
e g a f p	Advise the program	
e g a f p	Assist and work with committees	
e g a f p	Lead recreation	
e g a f p	Train leaders	
e g a f p	Others — List	
E G A F P	5. ABILITY TO ORGANIZE AND CONDUCT CONTINUING EDUCATION PROGRAMS (Adult — Young Farmer)	

Evaluation	Criteria	Comments
(Circle the appro-Priate letter)		
e g a f p	Organize the instructional program	
e g a f p	Teach in the classroom	
e g a f p	Teach on the worksite	
e g a f p	Records and reports	
E G A F P	6. PARTICIPATION IN SCHOOL AND COMMUNITY AC-TIVITIES	
e g a f p	Community participation	
e g a f p	General school participation	
e g a f p	Public relations	

Circle One: Overall Evaluation

Excellent Good Average Fair Poor

APPENDIX D

AGREEMENT

This agreement is entered into by the Board of Education of the _____, _____ County, Ohio, hereinafter referred to as the "Board," and the _____, _____ County, Ohio, hereinafter referred to as the "College/University."

College/University desires to place teacher education students in the classrooms of said Board for the purposes of their participating in student teacher and other field-based teacher education experiences as required by, but not necessarily limited to, the *Standards for Colleges or Universities Preparing Teachers* as promulgated by the State Board of Education.

The Board desires to cooperate with the College/University in facilitating student teaching and other field-based experiences for teacher education students and approves the utilization of its schools for such purposes by the College/University. Placement of such teacher education students in the classrooms of said Board shall be under the direction and control of the Superintendent.

Certificated personnel of the Board who agree to act as supervising teachers of teacher education students in student teaching and other field-based experiences may accept an honorarium or stipend directly from the College/University for those services rendered outside the regular school day and above and beyond the duties and responsibilities specified in the teaching contract.

Entered into this _____ day of _____, 19_____.

_____ _____

Chairman, Department Agricultural Education
College of Agriculture
The Ohio State University

_____

BIBLIOGRAPHY

Ahmann, J. Stanley and Marvin Glock, *Evaluating Pupil Growth*, Allyn and Bacon Inc., Boston, 1963, pp. 13.

Elliott, Peggy Gordon, Ed.D., "A Study of the Influence of the Amount of the Previous University Directed Field Experiences, Length of Assignment, and Number of Classroom Supervisors on Secondary Student Teachers' Perceived Impact on Pupil Instruction.", Unpublished Doctoral's dissertation, University of Indiana, 1975.

Johnson, James A. and Floyd Perry, *The Supervision of Clinical Experiences in Teacher Education*, Kendall-Hunt Publishing Co., 1974, pp. 10.

Lowery, Charles H., PhD., "The Impact of Pre-Education Clinical Experience in Teacher Career Decision Making Among Selected Michigan State University Elementary Teacher Candidates.", Unpublished PhD. dissertation, Michigan State University, 1974.

Lynd, Helen Merrell, *Field Work in College Education*, Columbia University Press, New York, 1945.

Standards for Colleges or Universities Preparing Teachers, Ohio Department of Education, Columbus, Ohio, 1975.

Tanruther, Edgar M., *Clinical Experiences in Teaching for the Student Teacher or Intern*, Dodd, Mead and Company, New York, 1967.

Teacher Education Leadership Conference
Advisory Planning Committee
1978
"Development of Common Core Curriculum for Vocational Teacher Education"

Delores Allenspach
Teacher Educator, Home Ec.
Miami University
Oxford, Ohio

Harry Davis
Assistant Director
Trade and Industrial Education
Division of Vocational Education
Ohio Department of Education
Columbus, Ohio

James Dougan Assistant Director
Agriculture Education
Division of Vocational Education
Ohio Department of Education
Columbus, Ohio

Kenneth Green
Teacher Educator, Distributive Education
Bowling Green State University
Bowling Green, Ohio

George Kosbab
Assistant Director
Administration, Curriculum and Staff Development
Division of Vocational Education
Ohio Department of Education
Columbus, Ohio

Aaron J. Miller
Department Chairman
Trade and Industrial Education
The Ohio State University
Columbus, Ohio

Charles W. Nichols
Department Chairman
Trade and Industrial Education
Kent State University
Kent, Ohio

Bernard Nye
Assistant Director
Distributive Education
Division of Vocational Education
Ohio Department of Education
Columbus, Ohio

Sonia Price
Assistant Director
Home Economics
Division of Vocational Education
Ohio Department of Education
Columbus, Ohio

Lorraine M. Rowe
Consultant
Teacher Certification
Ohio Department of Education
Columbus, Ohio

Cindy Sefton
Teacher Education
Business and Office Education
University of Cincinnati
Cincinnati, Ohio

Byrl R. Shoemaker
Executive Director
Vocational and Career Education and School Food Service
Ohio Department of Education
Columbus, Ohio

Daniel Vicarel
Assistant Director
Business and Office Education
Division of Vocational Education
Ohio Department of Education
Columbus, Ohio

Robert Warmbrod
Department Chairman
Agriculture Education
The Ohio State University
Columbus, Ohio

This publication is a part of the project activities funded under the provisions of the Educational Professions Development Act (Public Law 90-35), Section 553 and is administered through the Vocational Education Personnel Development Division, BOAE/USOE, Region V Office — USOE, and the Vocational Education Division, State of Ohio. Points of view do not necessarily represent official USOE or State of Ohio position or policy. The project sponsors do not discriminate against any individual for reasons of race, color, creed, religion, national origin or sex.

Teacher Education Topical Analyses

Series Number

LEADERSHIP DEVELOPMENT

1. The History and Philosophy of Vocational Education
2. Standard Characteristics of Vocational Education
3. Principles of Course of Study Construction
4. Administration of Vocational Education
5. Supervision of Vocational Education
6. Evaluation of Vocational Education Programs
7. The Role of Vocational Teacher Education in the Future
8. Occupational Competency for Quality Vocational Education

AGRICULTURE EDUCATION

9. A Model Methods Course for Agriculture
10. Preparing Teachers to Develop Courses of Study in Vocational Agriculture
11. Pre-Service Field Experience As Preparation for Teaching

BUSINESS AND OFFICE EDUCATION

10. Teaching Intensive and Cooperative Office Education
13. A Proposed Course for Adult Education in BOE
14. Work Experience as a Component to a Business and Office Education Curriculum

Series Number

DISTRIBUTIVE EDUCATION AND OCCUPATIONAL WORK ADJUSTMENT

15. Methods of Teaching Distributive Education
16. Curriculum Development for Distributive Education
17. Coordination Techniques in Distributive Education
18. Occupational Work Adjustment Coordination and Program Management
19. Methods and Techniques in Teaching Disadvantaged Youth
20. Curriculum Development for Occupational Work Adjustment Programs

HOME ECONOMICS EDUCATION

21. Vocational Home Economics: Non-Degree In-Service Education Program
22. Job Training Teaching Methods for Degreed Teachers
23. Vocational Home Economics Consumer Homemaking Methods

TRADE AND INDUSTRIAL EDUCATION

24. The Follow-Up Workshop
25. A Course in Teaching Methods and Techniques
26. Educational-Industrial Coordination: A Dual Approach

The Series of Booklets May be Purchased From:

Instructional Materials Laboratory
Trade and Industrial Education
The Ohio State University
1885 Neil Avenue, Room 112
Columbus, Ohio 43210