Re-direction of Special Methods Courses in Agricultural Teacher Training

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Before beginning a discussion of the re-direction of special methods courses in agricultural education, we need to have definitely before us a clear understanding of the function of teacher training.

The function of a teacher training department for prospective teachers of vocational agriculture is to prepare the trainee to discharge the jobs, responsibilities, and special activities which will face him when he becomes a teacher of vocational agriculture, and to develop in him the ideals and attitudes that characterize good public school teachers.

Some of the more important requirements involved in the job of the teacher of vocational agriculture are¹:

1. He must have ability to select and organize functioning training content.

2. He must have ability to teach organized content under organized working conditions.

3. He must have ability to teach unorganized content under unorganized working conditions.

4. He must have ability to manage and supervise project work

5. He must have ability to develop the necessary mechanical abilities of his students.

¹See also Bul. 94, Teacher Training in Agriculture. Federal Board for Vocational Education.
6. He must have ability to establish his program in a community.

7. He must be able to render special service to the community.

8. He must have ability to attain and to hold a position of civic and social leadership in his community.

Mr. Franklin Bobbett,\(^2\) one of the foremost thinkers on curriculum construction in general education, says, "When we know what men and women ought to do along the many lines and levels of human experience, then we shall have before us the things for which they should be trained. The first task is to discover the activities which ought to make up the lives of men and women, and along with these, the abilities and personal qualities necessary for their proper performance. These are the educational objectives. The plan to be employed is activity-analysis. The first step is to analyze the broad range of human experience into major fields,----the second step is to take them, one after another, and analyze them into their more specific activities. In this analysis, one will first divide his field into a few rather large units, and then break them up into smaller ones. This process of division will continue until he (the curriculum maker) has found the quite specific activities that are to be performed.-----The activities once discovered, one can then see the objectives of education. These latter are the abilities to perform, in proper ways, the activities."\(^3\)


\(^3\)A somewhat similar procedure is suggested by Charter's Curriculum Construction - The Macmillan Co., 1923.
I present this quotation here not because I think its thought content to be something new to men engaged in vocational education, but simply to show that not only the leaders in vocational education but also the leaders in general education are advocating a process of getting purposeful educational objectives, in a manner exactly similar to that which has been used for many years in the field of vocational education. The general education group call the process, activity analysis. We use a smaller word and call it, job analysis.

Our way of presenting what Mr. Bobbitt had to say in the preceding quotation is as follows:

1. What are the specific occupations for which training should be given?

2. What are the different jobs a worker is expected to perform in a given occupation?

3. What skills, technical information, and other abilities must a worker possess in order to perform intelligently the jobs in the specific occupation?

4. What ought to be taught?
   On the basis of the requirements of 1, 2, and 3, set up lessons covering what the worker needs to learn in the proper performance of each job.

Clearly the two processes,—that of the general educator and that of the vocational educator—are the same. Only the two men work in slightly different fields, and naturally use slightly different terms.

At present I see no more scientific and logical way for any teacher, whatever his field, to get at real functioning content and purposeful and specific teaching objectives than thru the process of analysis. When we use any other method we merely guess,
groppe around, or as, Strong and Uhrbrock⁴ express it, "we continue to operate on the basis of opinions and largely upon the opinions of those members of the faculty who are most thoroughly entrenched in our educational institutions."

However, be it with other teachers as it may; their problem is their own. For us, as teacher trainers, there is only one scientific procedure in getting functioning teaching content,—that of job analysis. The reason should be self evident. Everywhere today, I hope and believe, teacher trainers and supervisors are advocating that their teachers of vocational agriculture make use of job analysis in the organization of the subject matter of their courses. Therefore, the only consistent course for the teacher trainer, himself, to follow is to apply to own class-room procedure the method he recommends to his students.

Our first task, then, in organizing the teaching content and in getting the educational objectives of our special methods courses in agriculture is to use as a working basis a comprehensive analysis of the job of the teacher of vocational agriculture. Such an analysis should reveal the teaching jobs, the responsibilities and the special activities of the vocational agriculture instructor, and also should show the ideals, the attitudes and the habits he needs to possess to do an efficient job.

By teaching jobs, I mean, among other things, the instruction offered in:

1. Technical agriculture to all day students.
2. Farm shop work.
3. Teaching on the job in connection with project work.
4. Part-time and evening classes.

By responsibilities I mean:

1. Managing projects.
2. Supervising projects.
3. Classroom management.
4. All other things for which the instructor is held responsible but which in themselves are not teaching.

By special activities I mean such things as:

1. Selling his program.
2. Putting on exhibits.
3. Writing for local paper.
4. Rendering community service.
5. Conducting a community fair etc.

These three-- the teaching jobs, the responsibilities, and the special activities, make up the work of the vocational agriculture instructor and I suggest the following as a general procedure in analyzing the work of such a teacher:

1. Set up fifty or more of the most important teaching jobs, responsibilities, and special activities of an efficient teacher of vocational agriculture. Do this as suggested in Charters by:
   "(a) introspection, (b) interviewing, (c) working on the job and (d) questionnaire," or in conference with the supervisor, itinerant teacher trainer, and, if possible, the regional agent.6

5 Charters - Curriculum Construction. p. 38.

6 Such an analysis has been made by Prof. S. H. Dadisman, Uni. of Wyo., and is available in leaflet form.

Miscellaneous Pub. 482, Federal Board for Vocational Education, also shows such an analysis.
2. Remove from this list those items which fall in the province of general educational subjects. (It is a good idea to show these to the instructors of these subjects. It may suggest to them some additional teaching objectives for their courses.)

3. Remove from the remaining list those teaching jobs, responsibilities, and special activities not falling upon new men in the work.
   Those thus removed fall into the sphere of the following:
   a. Itinerant teacher trainer.
   b. Supervisor.
   c. Annual conference.
   d. Graduate work.

4. This process of elimination then leaves us with those things that should be made the basis of instruction of the undergraduate special methods classes. Group these into divisions corresponding to the number of special methods courses offered in the teacher training curriculum.

5. Continue the division of activities within each group until specific working units are reached. 7

In Colorado we are at the present time offering three special methods courses:

a. Special Methods in Agriculture.
b. Special Methods in Farm Shop.
c. Special Methods in Home Projects.

I frankly confess that we need another course, and a recommendation for such a course has been made. As it now stands, my course in Special Methods in Agriculture is still a hodgepodge. It includes:

1. Objectives to develop ability to organize subject matter.
2. Objectives to make lesson plans.
3. Objectives to conduct a community fair.
4. Objectives to classify and file bulletins.
5. Objectives to organize an agricultural society.
6. Objectives to gather a suitable assortment of illustrative material; and a very numerous assortment of other objectives of a great variety, together with some observation of teaching.

7A method somewhat similar to this is described in Charter's Curriculum Construction, pages 339-44.
I am convinced that objectives pertaining to organization of subject matter, to lesson planning, to the special technique of teaching and to the observation of teaching are all that should be in the special methods course. Such a restricted course would leave the teacher trainer an opportunity to help teachers to learn to perform those numerous other activities, all of which are a vital part of an agriculture instructor's job.

My plan is to divide the Special Methods Course in Agriculture into two courses, calling one Organization of Subject Matter and the Technique of Teaching (3 hours); and the other, Special Activities in Agricultural Education, (2 hours).

Going back to the procedure in analyzing the work of the instructor of vocational agriculture, we see that other and shorter methods than the one just outlined are possible. Mr. Charles R. Allen8 says, "There are, in general, two methods of carrying out any analysis which may, for convenience be called the 'cafeteria method' and the 'special order method' as we use them in getting a meal in a restaurant. The principle of the 'cafeteria' method is based upon selecting from a given list of possibilities, and so making up a 'special meal.' Its success evidently depends upon the fact that somebody has done part of the thinking for the customers. In the 'special order method' one builds up his own special order, making the complete analysis himself and not by selecting from any classified list of possibilities."

"The 'cafeteria method' evidently has the advantage of saving time and effort, because it is always easier to pick out than it

is to think out. Hence where the purpose is to get the lay-out as quickly and as easily as possible the 'cafeteria method' is the better one. On the other hand, where no general classified analysis is available or where one wants to think hard about his job, the 'special order' method is the better and should be used, whenever there is time to use it. In the first case a man works from the top down, considering the most general classification headings first, and in the second case, he works from the bottom up, starting with some detail."

There is also a third method of making an analysis which Mr. Allen calls the "combination method." This is really a combination of the other two, which uses what may be called the "Suggestive Incomplete Analysis" as a starter and works on from that." In this method a lay-out is made "partly on the selective basis and partly on the 'special order basis.'"

I bring these last mentioned methods of making analysis into this discussion because all three are applicable in building up Special Methods Courses.

A very fruitful source of teaching jobs, of responsibilities and of special activities of a teacher of vocational agriculture can be gleaned from the topical outlines of the four special methods courses given in Bulletin 94, recently issued by the Federal Board for Vocational Education, and from an outline called "Making the Course of Study in Vocational Agriculture" in Bulletin 90.

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8Bulletin 94, Teacher Training in Agriculture, pages 63 to 76.
9Bulletin 90, Agricultural Teacher Training, Federal Board for Vocational Education. Pages 20 to 27.
In building up a course from these five outlines of Special Methods courses, one would use the "Cafeteria Method."

In passing I wish not to fail to mention the fact that in most states some farms of activity analyses of the vocational agriculture instructor have been made. These are commonly called:

1. The Responsibilities of the Vocational Agriculture Instructor, or

2. The Agricultural Instructor's Annual Program of Work.

These analyses form an excellent basis for building up Special Methods Courses and in using them one would employ the "Combination Method of Analysis."

A few years ago a committee of which Professor C.B. Gentry was chairman made an interesting and profitable study along this particular line, called: "Some Jobs and Other Responsibilities of the Teacher of Agriculture."¹⁰

The list of jobs and other responsibilities mentioned in this study not only form a good basis for building up Special Methods Courses, but it also shows a reaction of fifty-eight teachers of vocational agriculture in twelve states on what they got in their Special Methods Courses, what they did not get and what training they still need to do a good job. All teacher trainers should be cognizant of the results obtained in this study, because these results show where more emphasis needs to be placed in the preparation of teachers.

They took some sort of a study of this nature—a check on the effectiveness of the training given to prospective teachers—

should occasionally be made by all teacher trainers and the results obtained should lead to a continual "Re-direction of Special Methods Courses."

We all believe in "Culling the Poultry Flock" and in "Weighing and Testing of the Milk of each Cow in the Herd" because these jobs spell increased production and larger profits. In order constantly to improve our Special Methods Courses, we too must cull, and weigh and test our stock. Herein lies much of the secret of progress.

I believe that you will all agree with Director J. C. Wright\(^\text{11}\) when he says, "the value of a training course comes out in the degree to which men trained are able to use and apply what they get in the training course on their every-day jobs, and this involves much more than the passing out of, or even the acquirement of, information about their jobs or about how to do their jobs." Then too,\(^\text{12}\) as suggested in Bulletin 94, "the training content must be organized on a selective basis.... those responsibilities chosen for training purposes must be selected from among the many that are available. The degree of proficiency to which the trainee will be developed should vary among those responsibilities chosen for training, or as Mr. Williams\(^\text{13}\) says: "On the one hand, we have a rather extended list of possible jobs of an agricultural teacher. On the other hand, we are faced with the necessity for training agricultural teachers in certain important procedures, practically to the

\(^{11}\)Bulletin - Vocational Education in the Pulp & Paper Industry, by J. C. Wright.

\(^{12}\)Bulletin 94 - Teacher Training in Agric.-Federal Board for Vocational Education.

\(^{13}\)Mr. A. P. Williams - Regional Agent in Agricultural Education, Federal Board for Vocational Education.
point where they have become habitual. Put in another way, the agricultural teacher should have a speaking acquaintance with some of the jobs, a more intimate and analytical acquaintance with other jobs, and a thoroughgoing proficiency and training with a few very important jobs.

As an illustration of the application of the general principles, just presented, to a specific problem, I will outline briefly the procedure I have been following in building up a Special Methods Course.

First, on the basis of analysis of the work of an Ag. teacher, I determined the major fields of activities or responsibilities; that is, the big things he must of necessity know and be able to do as:

1. He must know what his job is.
2. He must organize subject matter.
3. He must teach.
4. He must select and use textbooks, reference books and bulletins.
5. He must fix up a room, and get some equipment and supplies.

Second, I decide just exactly what I can and ought to do with the students in each of these major fields of activities in order to put the available time to the best possible use. In other words, I decide whether I think they should merely be able to appreciate intelligently how to carry out a responsibility, or whether they should be trained actually to carry it out. I decide whether I want to bring the class to the appreciation or the doing level. With this in view, I state my objective for each of these major responsibilities, and call it a block or major objective.
The following is an example to illustrate my meaning.

### SPECIAL METHODS IN AGRICULTURE

#### BLOCK OBJECTIVES

1. To get class to see the vocational instructor's job.
2. To develop ability of students to organize effectively subject matter.
3. To develop ability of students to put over the instruction.
4. To acquaint the students with texts, manuals, reference books and bulletins adapted to vocational agricultural class; and to develop ability of students to select these and to use these effectively.
5. To give class a clear conception of home project work in vocational agriculture and to get class to see the different factors entering into the success of this work and to get class to see other forms of supervised practice work in agriculture.

Third, I make a semester teaching plan in which I distribute the school time devoted to the subject, making allowance for quizzes and extras. On a basis of 18 weeks in a semester, I allow 16 weeks for strictly advanced work. In making out this semester teaching plan I follow exactly the same procedure suggested in my recent book on teaching vocational agriculture.

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The making of a yearly teaching plan is also illustrated below:

A Semester Teaching Plan for a Course
In Special Methods in Agriculture.

<table>
<thead>
<tr>
<th>List of enterprises to be taught in the course.</th>
<th>Weeks to devote to each enterprise</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Estimated</td>
</tr>
<tr>
<td>1. The Agriculture teacher's job</td>
<td>1</td>
</tr>
<tr>
<td>2. Organization of subject matter</td>
<td>4</td>
</tr>
<tr>
<td>3. Putting over the instruction</td>
<td>4</td>
</tr>
<tr>
<td>4. Texts, manuals, ref. books &amp; bulletins</td>
<td>1</td>
</tr>
<tr>
<td>#5. Home projects</td>
<td>1/3</td>
</tr>
<tr>
<td>*6. Farm shop work</td>
<td>1/3</td>
</tr>
<tr>
<td>7. Rooms and equipment</td>
<td>1</td>
</tr>
<tr>
<td>8. Part-time &amp; evening work</td>
<td>2</td>
</tr>
<tr>
<td>9. Summer activities of ag, instructor</td>
<td>2/3</td>
</tr>
<tr>
<td>10. Getting interest &amp; publicity</td>
<td>1</td>
</tr>
<tr>
<td>11. Professional improvement</td>
<td>1/3</td>
</tr>
<tr>
<td>12. Records &amp; reports</td>
<td>1/3</td>
</tr>
<tr>
<td><strong>Total for strictly advance work</strong></td>
<td><strong>16</strong></td>
</tr>
<tr>
<td>Time allotted for review work</td>
<td></td>
</tr>
<tr>
<td>Time allotted for quizzes</td>
<td>1</td>
</tr>
<tr>
<td>Time allotted for extras</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total number of weeks in the course</strong></td>
<td><strong>18</strong></td>
</tr>
<tr>
<td>(Class meets three days per week)</td>
<td></td>
</tr>
</tbody>
</table>

# A two hour "Special Methods Course in Home Projects in Agriculture" is required of trainees.

* A two hour "Special Methods Course in Farm Shop Work" is required of trainees.
I determine the training level I desire to reach in any particular phase of the agriculture instructor's job by the nature of the statement of the block objective and by the amount of time allotted to the block objective on the semester teaching plan. In a conscientious effort in stating the major objectives, and, on the basis of these, in making a semester teaching plan, lies much of the success of a course of instruction.

Fourth, I take each block objective and decide what I can best do to develop the particular thing I want to accomplish in the block; that is, I decide upon the sub-objectives.

This fourth point is illustrated below:

<table>
<thead>
<tr>
<th>BLOCK OR MAJOR OBJECTIVE I</th>
<th>Days allotted</th>
</tr>
</thead>
<tbody>
<tr>
<td>To get class to see the vocational agriculture instructor's job.</td>
<td></td>
</tr>
</tbody>
</table>

**SUB-OBJECTIVES**

1. To get class to see the fundamental aims of secondary vocational agricultural education.

2. To get class to see reasons for promoting vocational agricultural education.

3. To get class to see that training boy for useful occupation on a farm requires a method different from that commonly used in general education.

4. To get class to see the importance of the work of the vocational agricultural teacher in the big national program for the promotion of farmer efficiency.

5. To get class to see responsibilities resting on the vocational agriculture teacher.

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15 This point is also discussed in Federal Board for Vocational Education Bulletin 94, page. 28.
It seems to me that this fourth step is exactly similar to the making of a job outline of an enterprise as illustrated in my recent book. In stating these sub-objectives, we must naturally fall back upon the comprehensive analysis of the agriculture teacher's job. Without such an analysis we have nothing scientific to draw from.

Fifth, I make out a teaching layout for each sub-objective as suggested below and similar to the teaching layouts given in my book on teaching vocational agriculture.

(Teaching Layout of a Job)

<table>
<thead>
<tr>
<th>Block Objective</th>
<th>Sub-objective I</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>To get class to see the fundamental aims of secondary vocational agricultural education.</td>
</tr>
</tbody>
</table>

**Devices**

I. Problems for study and classroom discussion.
1. What is vocational agricultural education?
2. Give examples of vocational agricultural education.
3. For what particular type of student is voc. ag. training introduced into our schools?
4. When are students prepared for useful farm employment?
5. What are the specific aims of secondary vocational agricultural education.

II. Written work.
1. Write and be prepared to hand in a concise statement of what you consider to be the aims of secondary vocational agricultural education.

**Notes**
1. Pass out copies of Sec. Wallace's letter on Ag.Ed.

**References**

- Text. Pages (--- )
  - Sneddon: Voc.Ed. Chap. 5 and Appendix B.

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16 New Methods in Teaching Vocational Agriculture, pages 68 to 78; and 95 and 96.
By the term devices I mean the particular methods, agencies, tools, or procedures I want to use in the accomplishment of the objective. Some of these are:

1. Problems for study and classroom discussion.
2. Talk or lecture.
3. Laboratory work.
4. Outside work.
5. Demonstration.
6. Observation.
7. Illustration.
8. Discussion.

It is on this lesson plan sheet or, as I have recently been calling it, "teaching layout of a job," where I again determine the particular degree of the training level I desire the trainee should attain. I do this in the statement of the sub-objective, which may be:

1. To get students to understand....
2. To get students to appreciate....
3. To develop ability of student to do....

and also in the particular devices I use to accomplish the objective of the lesson.

Common devices for such sub-objectives as (1) and (2) are:

a. Recitation based on outside study.
b. Discussion.
c. Lecture or talk.
d. Report by student.
e. Illustration.
f. Cases.

The aim of these devices is to get out information that will enable the student to see or to appreciate points in the quickest way. However, when it comes to sub-objectives like (3) which calls for training to develop ability to do, then different devices must be used and these must be of a nature that will develop these abilities. Some of these are:

a. Laboratory work - drill in necessary procedure.
b. Blackboard drill.
c. Presentation and discussion of outside work.
d. Other student activities involving participation and action on their part.
These latter devices are for the development of proficiency and of a habitual procedure of a kind that is common to the work of the agriculture instructor. It has been suggested that in work of this kind "there is danger of drifting into formalism and stereotyped mechanical procedures that are often valueless from the standpoint of training teachers effectively." This is one of the points to guard against.

Such is the objective method as I see it, applied to agricultural education and I have found this objective method of teaching to be exactly what leaders in vocational education first expressed it to be years ago, and what leaders in general education are pronouncing it today. Mr. Bobbitt has said:17

"Efficient methods are dependent on definite standards. So long as definite standards are lacking, we can not expect methods to grow efficient. One does not devise expert methods of hitting a mark, nor does he exert himself strenuously in the effort until he has some mark to hit. So long as his task is a mere firing in the air, almost any method will do. But the moment a specific mark is set for him, he must discriminatingly discard everything useless or relatively ineffective and must equally discriminatingly choose methods that are relatively efficacious in securing the end in view."

Any study in any state will reveal the fact that men are performing too many necessary activities for which they were never trained or only partially trained because we teacher trainers have failed to include in our special methods courses, those specific

things that will take up a large part of the teacher's time, or because we did not give the more important activities enough time.

The chief cause of these short-comings is quite often lack of time; and lack of time is caused as stated in Charters by the fact that "We have signally failed to recognize elements of preparation that are appropriate to the apprenticeship stage of teaching, and have attempted to prepare master workmen all at once out of those who have had little or no experience on the job." Fundamental or liberalizing courses, such as history of education, principles of education, educational sociology, etc., indispensable as these courses are to the superior teacher, the master workman, their value is certainly much lessened when they are made basis for practical work and given to immature, inexperienced undergraduates. They should be recognized as the culmination of the professional training of the teacher rather than the beginning of such training. It is only thus that they can have their full value and that time may be given for the more immediately necessary courses needed by the prospective teacher."

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18Charters - Curriculum Construction, page 343. This statement was made by a committee of the Society of College Teachers of Education.