

T H E S I S

THE RELATIONSHIP BETWEEN TEACHING PROCEDURES
IN
VOCATIONAL AGRICULTURAL EDUCATION
AND
TEACHING PROCEDURES BEING ADVOCATED IN GENERAL
EDUCATION

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THIS THESIS HAS BEEN READ
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THE RELATIONSHIP BETWEEN TEACHING PROCEDURES
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Introduction

The problem in this thesis is: To discover the relationship existing between teaching procedures in vocational agricultural education and teaching procedures in general education as revealed in the problems of curriculum revision. In discussing this problem the material naturally separates itself into three minor problems which are: first, to determine the outstanding characteristics of teaching procedures in vocational agricultural education; second, to determine the outstanding characteristics of the newer teaching procedures in general education as they are being advocated in curriculum revision; third, to make comparisons, to summarize the facts presented, and to draw general conclusions from the discovered facts.

In order to intelligently evaluate the problem to be solved in this research study one must be conscious of the fact that certain teaching procedures as commonly used in general education have been very seriously questioned and criticised. Leaders in general education from coast to coast and from Canada to the gulf are whole heartedly

engaged in curriculum revision. These leaders say that what we have been doing in the past in general education was largely based on psychological theories such as faculty psychology, formal discipline and the wholesale transfer of training, and the idea that learning was a mass activity which modern psychologists no longer hold tenable. Furthermore, these same leaders tell us that much of what we have been teaching and the way in which we have been teaching were based on social and economic conditions that no longer exist. Therefore they have concluded that teaching procedures in general education must be changed and that newer practices must be adapted. These newer practices are revealed in the very numerous studies pertaining to various problems in curriculum revision.

The first question to decide in attacking this problem is "What is a teaching procedure?" A teaching procedure in this thesis shall be considered as any practice employed in teaching. The term will include all procedures involved in discovering functional teaching content, in the conducting of the teaching process, and finally, the new procedures being advocated in curriculum revision. It will also include several devices used in agricultural education and not common to general education. In a general way, teaching procedures may be interpreted to mean any method

or device a teacher follows or uses that is in any way connected with the instruction job. Some of the outstanding teaching procedures which will be discussed are:

1. Determination of specific teaching objectives.
2. Analysis.
3. Selection of appropriate teaching devices such as: lecturing, recitation, demonstration, supervised practice and study, and field trips.
4. Determination of appropriate testing devices such as written and oral examinations, tests, demonstrations by the pupil, and examination of the finished product.

By general education we mean training in the different subjects such as Mathematics, Chemistry, Physics, Latin, History, English, Biology, etc. which are taught in the average high school of a non-vocational nature or in the common college preparatory course. A boy who has taken the liberal arts course in preparation for entering a college or a university has had a general education. The boy trained to go on the farm and to participate successfully in the business of farming has had a vocational education.

The primary reason for writing a thesis on this problem is that many of the people engaged in vocational

education and many of the people engaged in general education are more or less confused as to the fundamental aims and values of each of these two phases of education. This thesis proposed to examine not only the arguments but the facts on both sides, and to make a thorough comparison of the two in order to arrive at a just conclusion concerning the function and value of each type of education.

It is the aim of the thesis to make a comparison of the two types of education and to determine from the comparison if the two types of education are doing the same relative job, that of fitting the student to participate more successfully in future life activities in whatever phase of life he may find himself when he is out of school.

Furthermore this comparison aims to discover whether there is in teaching procedures any relationship existing between the two types of education and whether there is any relationship in the teaching procedures being advocated in general education and the teaching procedures being successfully used by the teachers in vocational education.

In conducting this investigation a number of books were examined. In finding the aims, ideals, and the methods and practices employed in vocational work, authorities on teaching vocational subjects have been

consulted and their ideas taken as final. Likewise different men in position to make authoritative statements concerning general education have been consulted and their opinions adopted as conclusive.

Finally the thesis will make a comparison of the aims, ideals, methods and practices employed in both types of education.

OUTSTANDING TEACHING PROCEDURES IN VOCATIONAL AGRICULTURAL EDUCATION

Introduction

Before taking up the discussion of teaching procedures in vocational agricultural education it may be appropriate to point out a few of the pertinent facts concerning vocational agricultural education under the Smith-Hughes act or the National Vocational Educational Act. The Smith-Hughes type of vocational agricultural education is comparatively new. This new method was not used many years before the passing of the Smith-Hughes Act by Congress. When agriculture was taught at all in high schools prior to the Smith-Hughes Act it was done on the same instructional basis as the other subjects in general education and was not taught as a vocation. In those days teaching of agriculture did not aim to make a farmer but

just to give the boys and girls an appreciation of how things grow and a few of the facts concerning their growth.

The study of animals was conducted with no definite objective or goal in view other than an appreciation of the different breeds of animals, possibly their origin, present use and sometimes a small amount of information concerning their growth. Certainly there was no attempt made to apply the knowledge to the needs of the boy at that time nor to help him solve his problems. It was a very poor attempt at giving a little general agricultural information. Before the passing of the Smith-Hughes Act most of the farmers got their real training by the pick-up method or the trial and error route. In agriculture the apprenticeship system of training people to engage in their life work had passed into decadence. Nothing had taken its place and the need for training among farmers was great. With this realization as a background, Senator Smith and Representative Hughes, both from the state of Georgia, were sponsors of a movement that would encourage effective training for the common vocation of life, which movement culminated in the passing of the Smith-Hughes Act. Such was the beginning of vocational agricultural education.

Purpose of Vocational Agricultural Education

Just what is vocational agricultural education trying to do? The law passed by congress, creating the Smith-Hughes work, states* just what the framers of the law intended such education should do. It says:

- (1). That the controlling purpose of such education shall be to fit for useful employment.
- (2). Shall be of less than college grade.
- (3). Shall be given to pupils fourteen years of age or older.
- (4). Shall be given to pupils who have entered upon, or who are preparing to enter upon a useful occupation.

From this statement it may be seen that those taking this work are to be prepared for effective participation in the line of work that they take under Smith-Hughes provision, whether it be in the field of home economics, trade and industry, or agriculture, all three of which are covered by the act in question. In case of agricultural education, however, this has been taken to mean a little more than the mere preparing for the useful employment in the occupation. Teachers are trying in the field of agriculture to train

*Pg. 5. Smith-Hughes Law - Sec. 11.

boys to successfully participate in farming. They are not merely trying to train the boy to be a good hired man, but to train him to be a successful farm worker, farm owner, and farm manager, either of his own farm or that of someone else. The agricultural teacher is trying to perform a larger and more worth while task than merely to train those who will work for someone else in farming. This aim does not in anyway conflict with the Smith-Hughes law, but carries the purpose of the law itself a little farther than was originally stated. For this law is intended to serve two main classes of people; namely, those who have already entered upon a chosen occupation or vocation, and those who are preparing to enter upon a chosen occupation or vocation.

Aims and Objectives of Vocational Agricultural Education

Professor Schmidt in his book, "New Methods in Teaching Vocational Agriculture" states the aims of the agricultural instruction a little more specifically when he says,* ". . .efficient secondary vocational agricultural education must give to the student such training as a farmer in a given community requires to be successful." After completing a course in vocational agriculture a boy

*Pg. 7 - New Methods in Teaching Vocational Agriculture
G. A. Schmidt.

should be able to do all the different jobs on the farm that the most successful farmer in that region is called upon to do. This should include the skills and also the managerial ability involved in the performance of different jobs.

But vocational agricultural education means more than this. According to Rufus W. Stimson in his book Vocational Agricultural Education, "It means the drawing out and development of the best capabilities latent within the individual." From this we may see that the job of vocational agricultural education is not only the finding of the different capabilities within the boy but also the developing of those capabilities.

Dr. Franklin Bobbitt in his book, "How to Make a Curriculum," states the objectives of education under ten life activities.* Dr. Bobbitt analyzes the broad range of human experiences into groups which he calls his ten major life activities. The following is the classification used in his book:

1. Language activities; social intercommunication.
2. Health activities.
3. Citizenship activities.

*Pg. 8 - How to Make a Curriculum - Dr. Franklin Bobbitt.

4. General social activities--meeting and mingling with others.
5. Spare time activities, amusements, recreations.
6. Keeping one's self mentally fit--Analogous to the health activities of keeping one's self physically fit.
7. Religious activities.
8. Parental activities, the upbringing of children, the maintenance of a proper home life.
9. Unspecialized or non-vocational practical activities.
10. The labors of one's calling.

A careful examination of these ten life activities will reveal that the first nine are sought by the people in general education. Point ten is unquestionably in the field of vocational education. The life activity "The Labors of One's Calling" is the major activity which is stressed in vocational education. Vocational Agricultural education has as its major objective the training of boys to more effectively participate in the labor of their choosing,--that of farming. It is quite obvious that while this is the main thing sought for there will be overlapping at times into the other nine life activities with the teaching of related material. There are those who

believe that point ten, "The Labors of One's Calling," is the only one which should be taught in vocational education. They believe there should not be this overlapping. This is a narrow view point which will disappear when superintendents and supervisors have mutual understanding and respect for the other's field.

Types of Students

Very often in rural communities the boy who desires vocational education is the type who drops out at the end of the eighth grade or as soon as he reaches the age limit permitting him to quit school. This boy presents to the community in which he lives a very difficult problem which deserves much consideration. The problem is not only to give him the vocational training but to give him training in those other life activities in which he will engage, as has been mentioned in the quotation from Dr. Bobbitt's book. This second task of vocational education is not an easy one because of the type and age of the individuals to be trained. These drop-outs are going to be farmers in the community and as such should have the training to make them good citizens.

The framers of the Smith-Hughes act advocate this same idea because in Section IX, of this act, which

describes the specific use of federal funds, it says:

"The cost of instruction supplementary to the instruction in agricultural subjects provided for in this Act, necessary to build a well-rounded course of training, shall be borne by the State and local communities, and no part of the cost thereof shall be borne out of the appropriations herein made.

These boys who drop out of school and then come back for more training are going to vary greatly in their capabilities and ages. They are going to be a type hard to handle on account of their lack of interest in things which are not strictly vocational. They are coming back primarily to learn something about farming. The group of boys commonly taking the regular vocational agricultural course in high school is always a group more or less interested in farming. The majority of the boys in the group are usually the typical high school boy. Sometimes, however, because of the practicability of the training which is offered boys who have dropped out of school come back to take the agricultural course. Such boys are usually a little older than the regular high school boy and their ages vary from sixteen to twenty years. As the effectiveness in training in vocational agriculture in our high school is increasing, more and more of these

drop-outs are beginning to take the work; and in many instances special part-time classes are arranged for them. In some cases these part-time classes run for a period of six months, four months, two months, and often one month, but always during the slack season in farm work. Regardless of whether these part-time boys enter the regular full time vocational agricultural course or whether they enter a special part-time class the fact should not be overlooked that school attendance is being increased, that educational opportunities are being extended and that we are coming nearer to the goal, democracy in education.

Our job then is no small or easy one. Professor C. E. Gentry suggests that we take more the idea of the ultimate aim or objective rather than the immediate one to govern the work we give to the boys. In the Vocational Educational Magazine for December 1923 he says that, "We might make our general objective a little more specific for a class of fourteen year old boys if we would determine to give them the knowledge, skills, and experience of a typically successful forty-five year old farmer of the region by the time that they are, let us say, twenty-two to twenty-five years of age.---The gain of the equivalent of twenty odd years of farm experience would certainly be worth the effort." We see here that the aim should be

to cut the years of training of future farmers to almost half of what it is now by the pick-up method. Professor Wheeler in another part of his book* "Methods in Farmer Training" gives the same idea without limiting the time. He says concerning our objective: "Our training objective then is definitely to increase managerial and productive ability of a known quality and quantity on the part of the trainers, and this training is to be done to the end that the trainee may capitalize his abilities in the business of farming." It is very important that teachers hold their objectives in view at all times, first, because without them they are likely to unbalance their instruction; and second, because by having them in view they will be able to show to the administrators just what they are aiming to accomplish. This is one of the main ways of clearing up the misunderstanding between the administrator and the vocational teacher. It may easily be seen how a lack of definite objectives would unbalance the teaching in the illustration of holding the main objective of the instruction or the main objective of the project to be the maximum project returns. If this were the objective it is plain to see that the managerial ability would be trained to the detriment of the operative skill of the project. It is not the aim of agricultural education to

*Pg. 13 - Methods in Farmer Training - John T. Wheeler.

make merely a manager but to make a well-rounded farmer-citizen. Professor Charles R. Allen in one of his books* mentions what should constitute an efficient program in any field of vocational education. He says, ". . .production efficiency which comes from well instructed men doing good jobs," is the result of an efficient program.

From the discussion so far we can see that the teacher of vocational agriculture has set before him definite objectives which he is striving to accomplish. He has a definite and specific goal toward which he is continually working. This is one of the outstanding characteristics of the vocational work and is one which the general educators are adopting rapidly.

Seven Outstanding Characteristics of Agricultural Education

With these aims, goals, and objectives always before them the teachers of agriculture start on the job of instruction as a whole or a unit. The whole field is composed of seven major parts. These seven features of agricultural education characterize it as the outstanding type of instruction in the field of education today. The seven characteristics are:

1. Analysis.
2. Determination of specific teaching objectives.

*Pg. 1 - The Instructor, The Man and The Job - Charles R. Allen.

3. Definite annual program of work.
4. Selection of most appropriate devices for obtaining objectives.
5. Making ample provision for pupil participation in learning.
6. Individual instruction.
7. Adequate testing of the effectiveness of the instruction.

Analysis

When a teacher first goes into a new territory the first thing that he does is to make a thorough analysis of the situation. This is the first demand of a good agricultural teacher. He makes this analysis on four different lines. The first condition that he analyzes is the occupational conditions in the community. That is he goes out into the community and interviews the farmers to determine what the type of farming is and what are the different problems which he will probably encounter in teaching. All the material which he can gather concerning the farms, equipment, crops, stock and method of farming is collected and arranged for future use. As a result of this survey of the farming occupation in the teacher's territory an analysis of each enterprise is made.

An enterprise analysis is made on the basis of the

discovered facts in the occupational analysis. In this operation the teacher picks out what are the most important crops grown in the community or what is the most important class of livestock in the community. All the different enterprises in the community and their comparative values are listed in proportion to the number of farmers conducting the enterprise and the amount or size of the enterprise. From this second analysis are determined the third and fourth parts of the analysis.

The enterprises are then analyzed and divided into two different classes of jobs; namely, the operative and managerial jobs. Operative jobs are those that require skills or manipulative activities to perform. Managerial jobs are those jobs which require decisions to be made, and no skills or manipulative processes are involved.

After the division of the jobs of an enterprise has been made the next step is an analysis of the different jobs themselves. The steps we call operative job analysis and managerial job analysis. In the analysis we list the important features of each job. Also in the analysis is listed what the objective is, the essential elements to accomplish the objective, and how it shall be accomplished. In some analyses is listed the related information.

Teaching Objectives*

After the analysis has been carried through the four steps just outlined the next step in the teaching process is the determination of specific teaching objectives. These again are taken from the facts secured in the thorough analysis just finished by the teacher. The teacher considers these facts and the comparative value of the different enterprises and then formulates his definite and specific objectives on the basis of this study. For example, one of the jobs listed as an operative job in the analysis might be the fitting of the collar on a horse. The teacher would set up as his objective in that lesson, to develop within the boy the ability to properly adjust the collar. Each lesson should have some definite or specific objective in view. An example of the teaching objective in a managerial job might be getting the boy to determine the breed of chickens best suited to the community. As a result of these objectives we come to the next outstanding characteristic in vocational education, setting up the annual program of work.

Yearly Teaching Plans**

As a result of the analysis and the determining of the specific teaching objectives the teacher then sets up

*Appendix A. Illustration of teaching plan.

**Appendix B. Illustration of Yearly Teaching Layout.

his annual plan of teaching. In this plan will be found certain outstanding things. The plan will contain the list of enterprises, the amount of time that is to be given to each one and also the time when the jobs are to be taught during the year. In this way the teacher can follow out the seasonal sequence of the jobs and not overload any one month and fail to have enough to fill out the other months. It balances the work of the teacher and puts it in a form that he can follow throughout the year. In this program also is the analysis of each job to be taken up during the coming year, that is the teaching plan for each job. With this program in mind the teacher then selects the teaching device most appropriate to the desired objective.

Appropriate Device in Vocational Agricultural Education

In selecting the appropriate teaching device for putting over the instruction the teacher of vocational agriculture has a large list of effective methods to choose from. Some of the more effective devices which he may use in accomplishing his objective are: Project instruction, problem solving, analysis of the problem with the class, questions for study, demonstration, testing, laboratory exercises, question and answer, and lecture. Obviously the teaching procedure which the teacher will employ will depend upon the type of work to be done and the objective

to be obtained.

Pupil Participation in Vocational Agricultural Education

Another of the outstanding characteristics in vocational agriculture is the making of ample provision for pupil participation in learning. Here again the teacher has several methods by which this may be accomplished. The first one and probably the best one is by means of the project, either group or individual. The individual project is nearly always the home project, which belongs to the boy and from which he received the profit. We will give the definition used by Professor Schmidt for the home project.*

"A home project in agriculture is a productive farm enterprise, related to the school work and supervised by the instructor, carried to completion on a strictly business basis, requiring careful study, planning, recording and execution, and summarized and reported upon at its close." According to Kilpatrick a project should have four major parts all of which occur: purposing, planning, executing, and judging. The boy manages and operates the project and so gets actual experience in doing the job for himself. Another method is the supplementary farm practice. This includes shop work, or repair work done on the farm. Any practices employed on the farm which the boys do, either

*Pg. 154 - New Methods in Teaching Vocational Agriculture,
G. A. Schmidt

as a class or as individuals, are considered supplementary farm practice. The third method is supervised farm practice work. This includes the field trip, the demonstrations which allow the boy to repeat under supervision. In general the practicum operations carried on on the farm under supervision are called supervised farm practice work.

During a class conducted by Mr. Pearson of Nebraska Vocational Department there were ten reasons worked out for the supervised practice. They will be listed here with no discussion.

1. Recognized method of instruction.
2. Basis of class-room instruction.
3. Practice of what is to be learned.
4. Opportunity to make money.
5. Sells program to community.
6. Gives the teacher a check upon himself.
7. A means of developing the boy. (Managerial and Operative.)
8. Demonstration to community.
9. Puts instruction on practical basis.
10. Acquaints teacher with community problems and its patrons.

Individual Instruction in Vocational Agricultural Education

Another valuable characteristic of agricultural

education is that the teacher provides for individual instruction. Also in the selecting of the home project the boys will need individual instruction which would not be beneficial to the class as a whole. Individual instruction is carried on during the summer also, in the visit made by the teacher to inspect and criticise the boy's project.

Individual instruction is also given to any of the boys bringing in special problems from the farm or from their projects, which need the help of the teacher in solving but which would not interest the class. It is through individual instruction that the teacher does his best teaching because there he has specific problems full of interest to the boy, and hence the instruction gets across.

Testing results of teaching in Vocational Agricultural Education

The last step in the lesson is testing. This step in the instruction is to determine whether the teacher has successfully taught the lesson. There are several devices in use by instructors at the present time; some of these are written and oral examinations, tests, demonstration by the learner, learner doing job before the instructor, inspection of finished product. The actual doing of the job is the best known method of testing when possible to

use this type. To quote from Professor G. A. Schmidt* "the instructor must now stop being an instructor and become an inspector, and proceed to inspect the results of his teaching by testing in some suitable way, the ability of the learner to do the entire job alone."

In summarizing the first part of this thesis a few pertinent facts will be presented. The teacher makes an analysis of the community and on the basis of the analysis, sets up the objectives, which in turn determine the appropriate method of instruction to use. An annual or yearly teaching plan is made on the basis of the analysis. Vocational education allows for pupil participation and ample individual instruction with an effective testing device for checking the instruction. A detailed comparison of these procedures with general education will be made in the third part of this thesis.

*Pg. 98 - New Methods in Teaching Vocational Agriculture,
G. A. Schmidt.

OUTSTANDING TEACHING PROCEDURES
BEING ADVOCATED IN GENERAL EDUCATION

Introduction

In starting the discussion in the field of general education one gets into a field which until quite recently, was filled with traditions, practices, and firmly fixed methods. It is the oldest field of education and the most deeply entrenched. Plato and Aristotle were two of the oldest teachers in the field of general education. From that time to this the traditions have become more firmly fixed and the methods of teaching more solidly encased. For this reason it is much harder to change any practices or methods employed by general education than to change the corresponding practices in the field of vocational education. Vocational Agricultural Education is a mere infant in the field of education.

However firmly it may seem that this type of education is entrenched or how solid the bulwarks of the methods used it is slowly yielding to changing conditions, and we may see in many places evidence of changes. Many reasons are given for the changing conditions and various explanations are given but the fact remains that the old type of education is at last changing for the better. This fact is borne out more plainly and forcibly in the Twenty-Sixth Yearbook of The National Society for the Study of Education.

This Yearbook is given over almost exclusively to a discussion by such men as, Dr. Harold Rugg, Dr. Franklin Bobbitt, Dr. William Heard Kilpatrick, and many others of equal note, of the needs of curriculum revision, and of the curriculum reconstruction being conducted at the present time in many places in the United States. Though changes in curriculum reconstruction have long been advised and a beginning made in the right direction, the work is not yet finished. It is only just begun. As Harold Rugg in the 1926 Yearbook* states, "The surface has only been scratched."

Newer Educational Philosophy

Since the very earliest times it has been the idea to teach the subject and not the child, and it is only just lately that any change in this procedure has even been thought of. According to Dr. William Heard Kilpatrick** "We teach better today than they taught seventy-five years ago, provided we still believe in teaching the same things." He also states in the same book that "Practically all the subjects are greatly changed in content." It seems to be the concensus of opinion that the subject matter is one thing that is changing most rapidly in the field of reorganization and of reconstruction of the

*Pg. N. E. A. Year Book 1926 - Harold Rugg.

**Pg. 251 Foundations of Method - W. H. Kilpatrick.

curriculum. Changes are as necessary in the field of education as they are in any other line of endeavor.

"Science," is given by Dr. William Heard Kilpatrick as the main reason for the change in education. As may be seen, this is a most logical conclusion since science lies at the bottom of all the new discoveries and inventions, and they in turn are directly responsible for the advance in industry, modern conditions of transportation and communication, and our modern method of living. Advancement in the fields of chemistry, electricity and mechanics has been almost unbelievable, not to mention the advancement of radio and of television.

Dr. John Dewey and Miss Evelyn Dewey say in their book* "There are three things about the old-fashioned school which must be changed if schools are to reflect modern society; first, the subject-matter; second, the way the teacher handles it; and third, the way the pupils handle it."

With the change in curriculum must necessarily come the change in ideals and aims of that type of education. Or should we say that the curriculum changes come as a result of the changing of the aims and the ideals to meet

*Pg. 170 Schools of Tomorrow - John Dewey.

the new situations? Dr. Charles C. Peters* says: "We need to replace these empirical conclusions regarding the values of several subjects with scientific investigations that will be impersonal, systematic, observational. Fundamentally we shall need to know, on a scientific basis, what are the values that are needed in society. Next we shall need to determine scientifically what is the subject-matter that can make the largest contributions toward these desired ends. Then we shall need to know, on an experimental basis, what are the methods of handling the subject-matter that will be most economical of time and energy. Finally we shall need to know some adequate measuring instruments that will enable us to tell whether or not, and how largely, we are succeeding in actually attaining these ends." With this in mind the aims and ideals have been set up.

It must be remembered that just because an aim is set up and an ideal is stated there is no reason to believe that the aim and ideal are being accomplished. It does, however, show that educators are realizing the value of stated aims and ideals as educational goals toward which they may profitably direct their energies. Dr. William Heard Kilpatrick states,** "A paramount school objective

* Pg. 78 Foundations of Educational Sociology - Charles C. Peters.

**Pg. 172 Foundations of Method - W. H. Kilpatrick.

should be that a child shall not simply grow, but shall grow more and more unified. If we include as we must the social demands on each one, we might almost say that the moral aim of education is summed up in the efforts to build a progressively unified character." While this is a real aim it is not quite clear to all of us just what a "progressively unified character" might contain. To quote Dr. W. W. Charters* "Changes in the curriculum are always preceded by modifications in our conception of the aim of education."

In the statement "It must be kept in mind in considering methods that knowledge is not the most fundamental thing aimed at; but rather social attitudes and valuations,"** Dr. Bobbitt points out that the thing most desired in education is changing from that of merely acquiring knowledge to that of developing social attitudes and valuations in the child as he grows. In another place he continues;***"So long has our profession taught, that we think the only way to educate is to teach. We have not sufficiently known that to live will also educate. We have been busy providing the conditions for teaching. Only recently are we coming to know how to provide the conditions

* Page 5 - Curriculum Construction - W. W. Charters

** Page 162 - The Curriculum - Dr. Franklin Bobbitt

***Page 243 - The Curriculum - Dr. Franklin Bobbitt

for living. Both have a place; and the main thing is living." Here again we see the changing of the objective and the aim of general education from the mere gathering of knowledge to the making of life a little more enjoyable. Dr. John Dewey writes,* "Education is not something to be forced upon children and youth from without, but is the growth of capacities with which human beings are endowed at birth. What is learned in school is at the best only a small part of education." "The chief effort of all educational reforms is to bring about a readjustment of existing scholastic institutions and methods so that they shall respond to changes in general social and intellectual conditions."

Aims and Outcomes in General Education

In the light of this newer philosophy of education Dr. Franklin Bobbitt has set up what may be regarded as the newer aims or outcomes sought in education. He says in his book** that, "The aim of the curriculum is to stimulate and encourage children to grow by providing for them through a rich and suggestive environment, activities in which they joyously engage." Also ***"Education is primarily for adult life, not for child life. Its

* Pg. 2 Schools of Tomorrow - John Dewey.

** Pg. 115 N.E.A. Research Bulletin Vol. III No. IV-V.
Sep-Nov 1925

***Pg. 8 How to Make a Curriculum - Dr. Franklin Bobbitt.

fundamental responsibility is to prepare for the fifty years of adulthood, not for the twenty years of childhood and youth. 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 proper performance. These are the educational objectives."

Life Activities

The procedure to be used in obtaining these activities and personal qualities necessary he describes thus*, "The plan to be employed is activity-analysis. The first step is to analyze the broad range of human experience into major fields. The following is a classification that has been found serviceable:

1. Language activities; social intercommunication.
2. Health activities.
3. Citizenship activities.
4. General social activities--meeting and mingling with others.
5. Spare time activities, amusements, recreations.
6. Keeping one's self mentally fit--analogous to the health activities of keeping one's self

*Pg. 8 How to Make a Curriculum - Dr. Franklin Bobbitt

physically fit.

7. Religious activities.
8. Parental activities, the upbringing of children, the maintenance of a proper home life.
9. Unspecialized or non-vocational practical activities.
10. The labors of one's calling."

Analysis in General Education

Continuing with this analysis of Life Activities Dr. Bobbitt says further,* "The major fields of human action having been defined, the second step is to take them, one after the other, 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 has found the quite specific activities that are to be performed. At all stages of the analysis, attention should be fixed upon the actual activities of mankind. The activities once discovered, one can then see the objectives of education. These latter are the abilities to perform in proper ways the activities."

Objectives in General Education

In the National Educational Association Research Bulletin** is given the place in curriculum building of

*Pg. 9 How to Make a Curriculum - Dr. Franklin Bobbitt.

**Pg. 6 National Educational Association Research Bulletin IV & V.

the survey of adult activities: "If changes in our economic, social and industrial life are to be one of the bases for determining curriculum content, the survey of adult activities furnishes the best means whereby these activities may be discovered with accuracy. In addition to the general survey some would also employ the community survey to determine the activities of special importance to a particular community. Educational objectives can then be based upon the demands of life, and the training given necessary to meet these demands effectively. The survey or job analysis method of approach to course of study revision is justified, therefore, in so far as we look upon the school as a place which trains children for the responsibilities of life."

From the above quotations we see that the educators in the field of general education are beginning to analyze life activities in other phases than one's work, and upon this analysis they are setting up definite and specific teaching objectives. As will be shown in the third part of this thesis the method outlined by leaders in General Education* for obtaining objectives is exactly similar to

*Charters, W. W. - Curriculum Construction.

*Bobbitt, Franklin - The Curriculum.

*Bobbitt, Franklin - How to Make a Curriculum.

*Peters, Charles C. - Foundations of Educational Sociology.

the procedure employed in deriving the objectives in any vocational training course.*

Chart Explanation

The accompanying chart illustrates the ten life activities described by Dr. Franklin Bobbitt. The circle or wheel is divided into ten parts representing the ten activities. The center indicates the educational agencies, the home, school, church, radio etc. which help to make a well rounded individual. The outside circle or outer edge of the wheel represents a perfectly educated man, something which has never been produced.

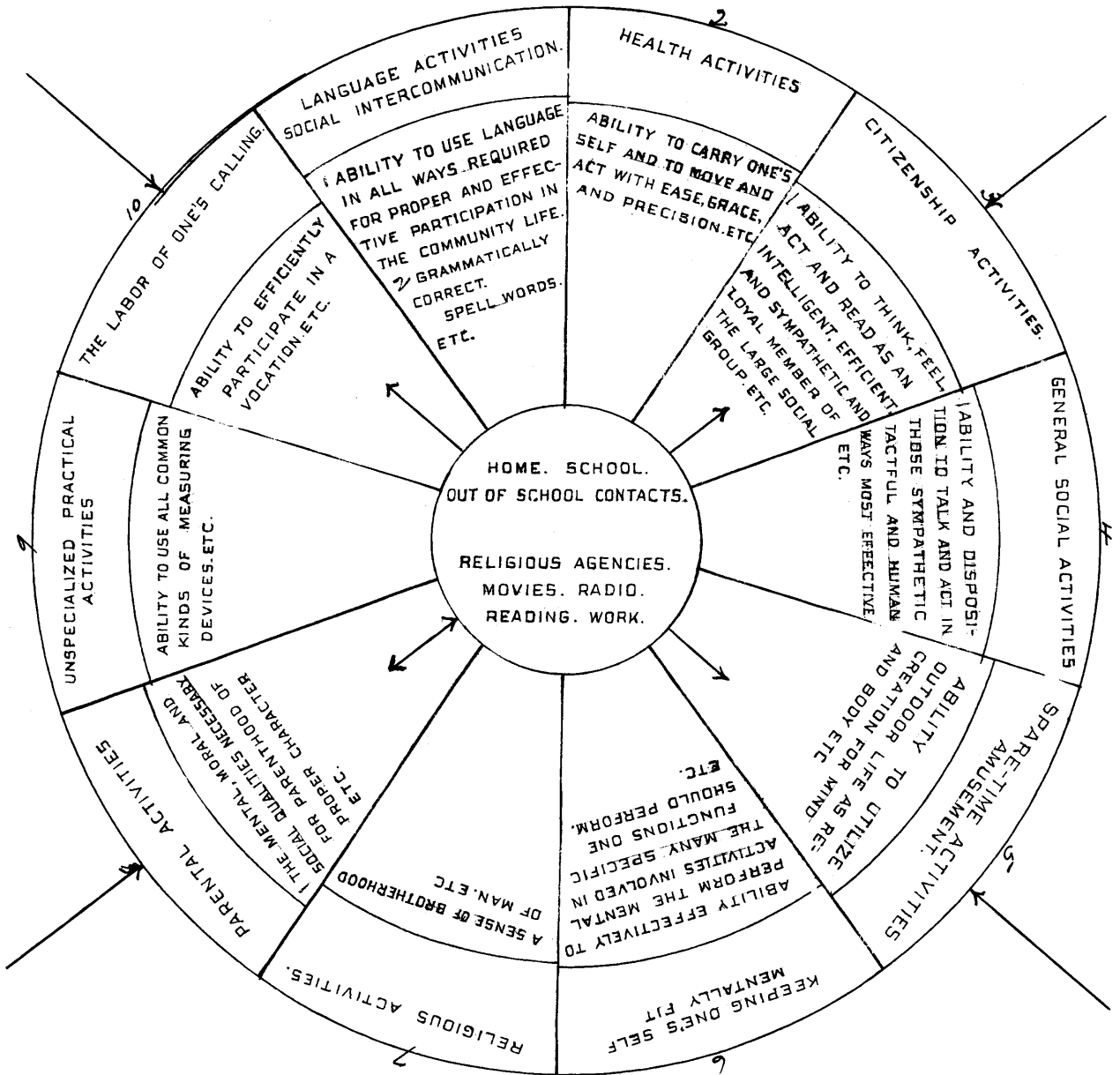
The lines in the different sections running parallel to the circumference of the wheel represent the degrees of efficiency in each life activity, which the individual has reached. The relative distance of each efficiency line from the center indicates the degree of progress, and the nearness to perfection by the remaining distance to the circumference. The arrows in the center pointing out show the direction of the force being exerted by the educational influences. The outside arrows pointing in show the direction of the forces of society as they exert their

*Allen, C. R. - The Instructor, The Man and The Job.

*Allen, C.R. - Vocational Education in a Democracy.

*Schmidt, G. A. - New Methods in Teaching Vocational Agriculture.

*Schmidt, G. A. - Projects and the Project Method in Agricultural Education.



influence on the individual in their everyday demands and activities.

Annual Plan for Teaching a Subject

As a result of this analysis and of the determination of the objectives of education the teacher must set up a plan for accomplishing the objectives. This plan in some cases is for a month, in others for six months, but the most up to date and most efficient plan is to have a yearly program of work.

Frequently in the field of general education the instructor will group the objectives in the annual teaching plan. In this way the main objective is kept more clearly in view and the danger of overstressing the minor objectives or lesson objectives is lessened.

In the 1926 N. E. A. Yearbook* is the statement, "It is necessary that the teacher have at hand at any stage of his teaching an outline of the general attitudes, the finer appreciations, the important concepts and meanings, and the generalizations which he wishes to secure as part of the outcomes of his instruction." In another place in the same yearbook we find, "Not only must he have this outline of attitudes, appreciations, meanings, etc.,

*Pg. 19 - N. E. A. Yearbook 1926.

which he sets as the goals of instruction, but to be reasonably sure that these come out of the instruction, the activities of children (including all the kinds of work we do in the school) should be planned in outline form in advance." Continuing with the same idea in still a third place the Yearbook says,* "That part of the curriculum which represents the daily life-situations and interests from which the immediate specific needs of students arise, should be--can only be--made from day to day." As can be readily seen the three quotations all bear the same idea, that of having the work planned in advance with the desired outcomes before the teacher at all times. The more complete the outline of the year's work with reference to the specific teaching jobs and the specific objectives desired, the closer will the teacher come to realizing the ultimate aims of the course.

To requote Dr. Charles C. Peters on the subject of annual plans,** "The study of the aims of education that is now engaging attention is distinguished from the older ones by its exhaustive analytical character. It undertakes to particularize our goals so that each hour of a teacher's activity may be headed toward an end that has been

*Pg. 20 - N. E. A. Yearbook 1926.

**Quoted pg. 4 - Projects and the Project Method in Agricultural Education - G. A. Schmidt.

specifically defined and that has been more or less consciously scrutinized as to its social importance. The current study aspires to carry the investigation of educational objectives into such detail that for every lesson a classroom teacher undertakes to conduct he can be guided by an end toward which to shape his efforts--which end shall not be the product of his passing whim nor of the accidental association of ideas, but one for the relative importance of which he has scientific evidence."

Appropriate Device in General Education

With the analysis as the basis for the determination of the teaching objectives or the determination of the specific aims desired, we carry the analogy a little farther and use the specific aims and teaching objectives as a basis in the determination of the most appropriate method of presenting the material to the class.

Dr. Charles Peters in his book states that we must determine, "on an experimental basis, what are the methods of handling the subject matter that will be most economical of time and energy." Dr. Franklin Bobbitt indicates that educational methods will vary,* "Educational experiences must take place where they can be normal. Frequently this is not at the schools."

*Pg. 78 - Foundations of Educational Sociology - Dr. Charles C. Peters.

*Pg. 34 - The Curriculum - Dr. Franklin Bobbitt.

As an illustration of this idea we might use a lesson in Biology. Let us use for example the lesson studying the habits and home of some animal, possibly a bird. The best method to accomplish this objective would be to go out on a field trip and actually look at the animal in its original habitat. Dr. William H. Kilpatrick states the choice of method a little more specifically.* "To each thing to be learned belongs its own appropriate method." This statement would indicate that there must be numerous devices at the command of the teacher to most effectively put over the instruction. Dr. Frasier and Dr. Armentrout in their book**give three major factors which determine the principles of the method to be used. They are:

1. Aims of education.
2. Nature of the child.
3. Nature and needs of society.

In obtaining the appropriate method to use, the instructor has the choice of several distinct and efficient methods. Some of the more common ones are:

1. Lecture by the instructor.
2. Recitation.

* Foundations of Method - Dr. Wm. H. Kilpatrick, Pg. 7.

**Pg. 107 An Introduction to Education - Dr. Frasier
Dr. Armentrout.

3. Discussion or socialized recitation.
4. Supervised study.
5. Biology field trips. (May be used in any class for demonstration.)
6. Laboratory work.

Dr. Charles Elmer Holley in his book* states that about 95% of the instruction in general education is on the recitation basis but that the tendency in curriculum revision is away from this type of instruction.

Pupil Participation in General Education

Another change being advocated in curriculum revision as a result of the selection of the most appropriate method of instruction is the making of ample provision for pupil participation in learning. In other words it is the planning on the part of the teacher for more and more actual participation on the part of the student in real life activities while in school. In the N. E. A. Research Bulletin** it is stated, "Training results from meaningful activity growing out of the child's needs and interests." Dr. Kilpatrick in his book*** says, "We can not learn what we do not practice." Since one of the aims of education

* Pg. 73 - The Teachers Technique - Dr. Charles E. Holley.

** Pg. 115 - N. E. A. Research Bulletin III Nos. 4 and 5.

***Pg. 65 - Foundations of Method - W. H. Kilpatrick.

is that the child be taught to participate more effectively in life's activities we should allow for more actual participation in these activities as found in the analysis.

Dr. Peters in his book* states that, "A pupil learns only by self-activity and whatever stimulates him to the most vigorous effort in pursuing it, involves, other things being equal, the greatest amount of growth." Dr. Frasier and Dr. Armentrout in their book** also stress the self-activity of the student. They say, "Instruction cannot rest with cold facts alone. What a child does is the great factor in learning, in other words, it is the self-activity of the pupil which educates him." Dr. Franklin Bobbitt carries this same idea in his book.*** "An awakening education is everywhere coming to realize the need of work-activities as the only possible normal method of preparing for the work of the world. A habit is to be acquired in the way it is later to be exercised." In these three quotations the authors have been unanimous in their opinions that thru student activity and participation in learning is the only way true learning comes. On this basis the participation should be based upon the analysis of life activities and the student allowed to participate

* Pg. 66 - Foundations of Educational Sociology - Dr. Charles C. Peters.

** Pg. 108 - An Introduction to Education - Dr. Frasier, Dr. Armentrout.

***Pg. 20 - The Curriculum - Dr. Franklin Bobbitt.

in each of the activities in which, as a well rounded citizen, he will later be called upon to participate. The more effectively he can participate, the more effective has been the education.

In the field of general education as well as in the field of vocational education there are again numerous devices available for student participation. The following are probably the most commonly used at present:

1. Laboratory exercises.
2. Field trips.
3. Supervised practice.
4. Public speaking or public expression.
5. Individual instruction.
6. Projects.

Individual Instruction in General Education

In school, as in every other phase of life where large numbers are brought together as a class or group of individuals, there will be a large variation of mental abilities and also an equally large variation in the operative abilities of the individuals. As a result of this individual difference individual instruction is necessary for effective instruction to the class as individuals.

The 1926 N. E. A. Yearbook states,* "In stressing the importance of common elements in the curriculum we recognize fully that there should be different expectations with respect to the accomplishments of children who learn rapidly, and those who learn slowly. The curriculum should provide for individual differences." According to Dr. Holley**there are five different methods of taking care of these differences. They are:

1. Diversified curriculums.
2. Free election of courses.
3. Grading pupils according to ability.
4. Use of study coaches for the slow and supplementary work for the bright.
5. Various combinations of the above.

Some of the other methods of taking care of the individual differences are the adoption of different methods of instruction such as the Dalton and the Winnetka plans, which are plans of teaching based entirely upon individual instruction. In the method of recitation formerly followed the recitation was a form of testing, with the answers comparatively memorized, and the teacher not asking searching questions to stimulate the pupil to exert any mental effort in answering the questions. As Dr. Bobbitt in his

* Pg. 17 - N. E. A. Research Bulletin.

**Pg. 38 - The Teachers Technique - Charles Holley.

book* states concerning the curricula, "The curricula designed for members of the three ability groups, (dull, medium, bright) cannot consist of an equal number of equal units. Content of units must be unequal. The number of units of the basic work may vary. The number of extras will vary greatly from individual to individual." This is one of the largest and most worth while steps in the curriculum revision being advocated. It is leaving the old mass type of instruction for the better individual instruction.

Testing in General Education

The last step in the educational process and a necessary one is the testing step. If a teacher has definite objectives to aim at the only way to determine whether or not he has hit the mark is to employ some type of testing device. In general education, as in vocational education, the more common devices, as written and oral examinations and tests, are used almost universally while in some lessons the test is the ability to do certain things efficiently. A quotation from the 1926 N. E. A. Yearbook** defines the ideal testing device. "The final test of learning is the emergence of appropriate conduct." In operative or manipulative lessons this is the ability

* Pg. 72 - How to Make a Curriculum - Dr. Bobbitt.

**Pg. 18 - N. E. A. Year Book 1926.

to do, in the appreciation lessons such as reading it is the selection of good reading material and the elimination of the poor. The real test of the individual is the changing of his conduct for the better. The only method of knowing or finding out about this is by observation on the part of the teacher.

Summary

In summarizing the second part of this thesis briefly a few of the main facts will be noted. General education is the oldest type of education. General education employs analysis in determining the activities of the citizen, forms its objectives on the basis of the analysis and then on the basis of the objectives sets up appropriate teaching devices. An annual program is set up on a basis of the analysis. An adequate plan for pupil participation, individual instruction, and testing is made. A complete comparison with vocational agricultural education will be made in the third part of this thesis.

COMPARISONS AND ABSTRACTIONS

In summarizing the facts presented in Parts I and II of this thesis we notice a striking comparison in the two types of education. A close analysis shows only one place where Vocational Agricultural Education varies greatly from general education. In the first comparison made there is a wide variation, resulting almost in a contrast. General education is the oldest form of education, while vocational agricultural education which is the newest type of education, the Smith-Hughes Law having been passed in February 1917, only a little over 10 years ago.

An examination of the aims of the two types of education shows a similarity in the aims which is very marked. The aims of vocational education are to train the boy to successfully participate in the business of farming, to produce a well rounded farmer-citizen, and to train the boy in the managerial and operative abilities. This is exactly what educators are trying to do in general education. The terms are a trifle different but that is all. They aim to stimulate children to grow, to provide activities for growth, to prepare for adulthood and to train for human experience and citizenship. These are identically the same aims expressed in different terms.

In comparing the different educational methods,

first we see agricultural education analyzing the occupation of farming and general education analyzing a citizen or an adult in society. Second, agricultural education analyzes the enterprises in farming or the smaller sections of the occupation and general education analyzes the community or smaller groups of citizens or adults. Third, the teachers of vocational agricultural education continue the analysis a little farther and analyze the enterprises into operative and managerial jobs. The general education teachers analyze the community activities into the various life activities which correspond to jobs. When we come to comparing objectives we find both types of education determining their specific objectives on the basis of the analysis conducted. Both types have determined this objective to be to train the boy or girl to successfully participate in the activities determined by the analysis. Again we have an identical comparison based upon the authorities quoted in parts I and II in this thesis.

As a result of setting up definite and specific aims and objectives to be attained, each type of education has formulated an annual teaching plan to be followed throughout the year in accomplishing these aims and objectives.

After the aims have been specifically determined each type of education employs devices which will meet the

aims or objectives of the lesson as stated in the objective or aim. As was pointed out in the discussion the methods or devices are used interchangeably by both types of education. Here again as in the other points of comparison the methods are similar.

In the citations used in the discussion, both branches of education are strongly in favor of pupil participation, although both branches do not use exactly the same methods or devices. In agricultural education there are four common methods used:

1. The project, both individual and group.
2. Supplementary farm practice.
3. Supervised farm practice.
4. Field trips.

In general education the devices most commonly used are:

1. Laboratory exercises.
2. Field trips.
3. Supervised practice.
4. Public expression.
5. Individual instruction.
6. Projects.

While the methods used may be different the end in view is attained in both cases.

Individual instruction is obtained in vocational agricultural education by means of project selection, analysis and visitations and also special problems and field trips. In general education this same idea of individual instruction is obtained first, by a diversified curriculum; second, by free selection of courses; third, by grading on a basis of ability; fourth, by use of tutoring and supplementary work; and fifth, by different combinations of the above methods.

In the last step of instruction the comparison is as close as in the other steps although this step is not as thoroughly worked out as the others. Both types use written and oral examinations and tests. Agricultural testing is a little easier than general testing, because of the greater ease in actually seeing what the student has done and can do on many of the jobs. The agricultural teacher can ask for a demonstration of some job, or can inspect some product for testing. The teacher in general education finds it much harder to determine the "emergence of appropriate conduct." Also the observation by the teacher is more difficult, due to the nature of the product or attitude to be tested in the observation.

From the comparisons just made one is aware of the similarity of methods and devices used in the different

types of education. In the seven steps of the instruction these types are identical, in general aim or end desired, and in almost every case in the devices used in obtaining those aims or ends sought.

S U M M A R Y

<u>Vocational Agricultural Education</u>		<u>General Education</u>
<u>New Type of Education</u>		<u>Oldest Type of Education</u>
Aims		Aims
1. Train to successfully participate in the business of farming		1. Stimulate children to grow
2. Product, a well-rounded farmer-citizen		2. Provide activities for growth
3. Train in managerial and operative jobs		3. Prepare for adulthood
		4. Train for human experience and citizenship
Analysis		Analysis
1. Occupational analysis		1. Citizenship analysis of adulthood activities
2. Enterprise analysis		2. Community analysis
3. Managerial job analysis		3. Life activities - (10)
4. Operative job analysis		
Objectives		Objectives
1. Determined on basis of analysis		1. Determined on basis of analysis
2. Train boy to efficiently participate in jobs required by successful farmer of that community		2. Train to successfully perform activities determined by the analysis
Plan		Plan
1. Yearly teaching plan		1. Annual program of work
Methods		Methods
1. Determined by aims and objectives		1. Determined by aims and objectives
2. Devices		2. Devices
a. Home project		a. Lecture
b. Problem solving		b. Recitation
c. Analysis of problem by class		c. Discussion
d. Recitation		d. Supervised study
e. Lecture		e. Field trip
f. Demonstration		f. Laboratory
g. Testing		g. Testing

Pupil Participation	:	Pupil Participation
1. Project) Group	:	1. Laboratory exercises
) Individual	:	2. Field trips
2. Supplementary farm practice	:	3. Supervised practice
3. Supervised practice	:	4. Public speaking and public expression
4. Field trips	:	5. Individual instruction
	:	6. Projects
Individual Instruction	:	Individual Instruction
1. Project selection and analysis	:	1. Diversified curriculum
2. Special problems	:	2. Free selection of courses
3. Project visitations	:	3. Grading according to ability
4. Field trips	:	4. Use of study coaches and supplementary work
	:	5. Various combinations
Testing	:	Testing
1. Examinations	:	1. Examinations
a. Written	:	a. Written
b. Oral	:	b. Oral
2. Tests	:	2. Tests
3. Demonstration by student	:	3. Emergence of appropriate conduct
4. Inspection of finished product	:	4. Observation by teacher

CONCLUSION

In the general conclusion drawn from the presented facts a few main facts will be stated. In part I of this thesis I described the procedures employed in vocational agricultural education with special reference to analysis, definite objectives, and teaching methods employed. In part II a similar procedure was followed with general education. In general education as in vocational education special attention was given to analysis, definite aims and the instruction[?]method.

In part III a complete general summary was made, comparing the two types of education in all the phases discussed in parts I and II. It was noted that the two types were practically identical throughout. Part III also brought out the resemblances in procedures. There seems to be no question but that the essence of the outstanding curriculum changes being advocated in general education at the present time were derived from procedures in vocational education, and that general education is following in the footsteps of vocational education.

Dr. Lewis, head of the Education Administration Department of Ohio University said at a joint conference of vocational teachers of Connecticut and New York:

"General education has gotten more from vocational educa-

tion that it could use than from any other source. General education has made more advance in the last six or seven years than in any 25 years previous. This is especially true of the job analysis, predetermined objectives and the survey method of tackling things as they are."

A YEARLY TEACHING PLAN

FOR A COURSE OF INSTRUCTION IN _____

LIST OF ENTERPRISES TO BE TAUGHT IN THE COURSE	WEEKS TO DEVOTE TO EACH ENTERPRISE	
	ESTIMATED	ACTUAL
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		
11.		
12.		
Total for strictly advance work		
Time allotted for review work		
Time allotted for quizzes		
Time allotted for extras		
Total number of school weeks devoted to the subject		

ENTERPRISE-----

DAYS	MONTH

JOB:-----

Situations to be dealt with:

Objectives:

Devices:

Notes:

References:

(Analysis of an operative job)

ENTERPRISE:-----

JOB:-----

Manipulative processes and skills:

Guides to technical knowledge:

Related information:

General information:

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