This module on implementation of change is one of a set of eight on administration and supervision and is part of a larger series of thirty-four modules constituting a core curriculum for use in the professional preparation of vocational educators in the areas of agricultural, business, home economics, and industrial education. Following the module objective and overview and a bibliography of suggested resource materials (readings) for the entire module, four lessons are presented: (1) sources, issues, and trends; (2) research and planning; (3) organization, design, and implementation; and (4) continuation and evaluation. Each lesson contains the objective, overview, a list of suggested learning activities, and a list of suggested resources (readings). Concluding the module is a simplified curriculum development model, followed by a pre/posttest and an answer key. (The modules have been field tested in various educational settings, including bachelor and masters degree programs, and are considered adaptable to many instructional styles and student entry levels. CE 018 935-937 contain working papers and other materials used in the development of the module series.) (JH)
Common Core Curriculum
for Vocational Education

D-8
IMPLEMENTATION OF CHANGE

Module Writer: Hal Marsters, M. S.

Category D:
ADMINISTRATION AND SUPERVISION

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Gwen Cooke, Ph.D.

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1978
ABOUT THIS MODULAR CURRICULUM

This module is one of a series of 34 modules intended for use in the professional preparation of vocational educators in the vocational education service areas of agricultural, business, home economics, and industrial education. The curriculum can be adapted to various styles of instruction and to various entry-levels of students.

It is recommended that an instructor planning to use these modules review each category to determine if any modification is needed in the objectives and suggested activities so that they conform with local institutional policies and/or vocational education programs. It is also suggested that resources and activities be identified for the specific entry-level of the student to be served.

The activities listed are suggested. The use of any other activity or reading reference which the instructor believes would help to accomplish the objectives of that lesson is encouraged. The choice of the teacher to use the entire module, either through group reports or individualized assignment, will be related to individual student competency requirements.

Since many modules strongly recommend the use of local administrative personnel and community resources, it is suggested that all site visitations and requests for assistance in the community be coordinated by or cleared through the instructor. The instructor may wish to distribute these tasks among the student group and across the community with the class report system being used to disseminate the information gathered.

These modules have been field tested in various settings. They have been used with students working toward a bachelor's or master's degree and with students seeking the designated subjects credential in California. Some modules were tested through student independent study, others as part of total class assignment, and still others as an alternate activity. Workshop participants examined the materials in terms of content, activities, and resources. The adaptability of this curriculum is one of its strengths.

The materials could not have been completed without the participation and contribution of many individuals. Chief among these persons were the module writers, workshop participants, field-test instructor, and students. Conference presenters and evaluators also contributed to this project. Proceedings of the workshop are available upon request.

If we can provide you with information or help in using this curriculum, please feel free to contact us.

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IMPLEMENTATION OF CHANGE

Module Objective.

Upon satisfactory completion of this module, the student will be able to demonstrate the ability to incorporate the elements and procedures for a curriculum change into a proposal and assist in organizing resources for its implementation.

Module Overview

In the educational environment, changes are most likely to occur along the boundaries, the areas where the educational process interfaces with the social, economic, and industrial needs of the society. It is obvious that vocational education resides in this boundary area, and is one of the first in the educational environment to be affected by changes in the economic and industrial world. Therefore, curriculum development in vocational education is a continuous process of assessment, adjustment, and evaluation.

Curriculum change is often one of the most vigorously promoted and most ardently opposed issues facing vocational educators at all levels. Yet the primary strength lies in changing and developing programs to meet the individual and industrial need of the future.

If vocational education is to achieve its maximum potential, then vocational educators must be (1) capable of identifying and implementing needed changes and (2) flexible and adaptable enough to accept change. We must learn management skills, develop communication techniques, and act as a catalyst to expedite change.

In order to persuade others that change is necessary, you must first thoroughly understand the problem, including current trends, the status of the existing program, the strengths and weaknesses of the proposed program, and its effect on the educational system's resources and personnel. Only then can you be effective in bringing about a change in the curriculum.
It is the purpose of this module to assist the learner in identifying and developing the abilities needed to plan, implement, and evaluate change. This module has been divided into four lessons:

1. Sources, Issues, and Trends
2. Research and Planning
3. Organization, Development, and Implementation
4. Continuation and Evaluation
Resource Materials for Completing the Activities in this Module


Human Relationships: Why They Succeed or Fail. White Plains, New York: The Center for Humanities, Inc.


Lesson One: Sources, Issues, and Trends

Objective

Upon the satisfactory completion of this lesson, the student will be able to: (1) identify and describe the factors influencing the development of curriculum in vocational education; (2) analyze contemporary issues and trends; and (3) describe their implications for curriculum change in vocational education.

Overview

This lesson will emphasize the sources, issues, and trends affecting the curriculum in vocational education. To become more aware of the forces of change and the pressures they exert on the curriculum, the curriculum planner or specialist must be well informed about what is taking place outside of the local educational environment and be cognizant of change itself. Often one must internalize existing statistics and make comparisons before the magnitude of the data is fully realized. An example of "change" information with implications for vocational education is found in Fabun's book, "The Dynamics of Change" where he states:

"By 1986, 35% of all of the people alive will be less than 15 years old. That even today (1967) China has more children under 10 than the total all-age population of Russia."

Even though many of the predictions regarding population trends have not been completely accurate, nonetheless changes in population, total numbers, location, and age groups continue to have major influences on curriculum decisions.

In addition to the implications of a changing population, there are changes taking place in the socio-economic and political arenas as well as rapid and often startling advances in science and industry. The vocational educator must be aware of these issues and trends if he is to respond intelligently with realistic and meaningful programs. Questions to be considered include:

(1) What will be the change in the age level of different segments of the working population?

(2) What will be the changes in the number and types of jobs as a result of increased technology?

(3) What changes will be prevalent in certain socio-economic and ethnic groups as a result of inflation?
Suggested Activities

(1) Make a list of the sources outside of the education environment which exert an influence on vocational education curriculum decisions. This may be done as a class activity.

(2) Arrange a teleconference with a leader in vocational education. Guide the students in the development of questions to raise as the leader identifies and discusses contemporary issues or trends which have an impact on vocational education curriculum.

(3) Review current literature and, using the format provided, identify at least three separate issues or trends and briefly discuss their implications for curriculum change. Example: Read the excerpt from J. Robert Warmbrod's presentation and complete the above assignment. (See Appendix A.)

(4) Using the same format, identify two of the most pressing issues or trends now facing a particular educational program. If possible, select one with which you are already familiar.

Suggested Resources:


Upon successful completion of assigned activities, proceed to Lesson 2.
FORMAT FOR ACTIVITY NO. 3


Issue: The Purpose and Effectiveness of Vocational Education at the Secondary School Level.

Trend: 

Implication:
Lesson Two: Research and Planning

Objective

Upon completion of this lesson the student will be able to: (1) explain the basic types of curriculum change and the reason for them; and (2) list the personnel likely to be involved in a curriculum change and identify their responsibility and attitude toward change.

Overview

The purpose of this lesson is to develop the abilities needed to identify the types of change and the personnel who will be involved. However, before undertaking the activities in this lesson, it would be advisable to briefly review the general sources from which curricula originate. This review should include:

1. Curricular plans developed exclusively by agencies outside of the local educational system. Programs developed by institutions of higher education; private foundations, and professional organizations or commercial enterprises such as publishing and equipment manufacturing companies or supply houses would be typical examples;

2. Programs developed cooperatively between agencies outside of the local educational system and educators who will be directly involved in the implementation of the proposed change;

3. Programs developed primarily by personnel within the local educational system which are formed into curriculum committees or development teams.

There is a very close relationship between the source of curriculum change and type or extent of the change. Often, the type of change desired will greatly influence which one of the primary sources for curriculum development the curriculum planner will choose.

It is important to note that curriculum changes can be based on political, societal, and economic changes in society. Examples of this are: (1) change in funding of education programs as a result of the passage of Proposition 13; (2) renewed emphasis in the learning of basic skills as a result of many factors including news media coverage of test scores, court cases brought against school systems, and lay books written on this subject; plus (3) the back to the basics core at Harvard University to assume that students leave that institution with special elementary skills. Harvard has lead the nation in curricular change.
Curriculum change may include the (1) elimination of a program because it is outdated or no longer appropriate; (2) development of a new program; (3) revisions of a course of instruction by adding or deleting content; (4) changing the delivery system; and (5) reassessment of goals and objectives.

Just as there is a relationship between the source and type of change, there exists a similar relationship between a change proposal and the personnel who must plan and implement it. If a change is to occur it must take place within the constraints of a particular educational unit; therefore the curriculum planner must be able to identify both the key personnel and their role in the change process.

Using your personal experience as an educator, analyze an educational program and complete the following activities.

Suggested Activities

(1) Prepare a form which lists the types of curriculum change, the most likely reason for the change, and the probable approach for its solution.

Example:

<table>
<thead>
<tr>
<th>Type of Change</th>
<th>Reason for Change</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Program</td>
<td>Change in occupational requirements.</td>
<td>Organize curriculum development team.</td>
</tr>
</tbody>
</table>

(2) Using the form provided, select one type of curriculum change, such as a New Program, and identify the key personnel at each administrative level and their involvement in the change process. (See next page.)

Suggested Resources


Upon successful completion of assigned activities, proceed to Lesson 3.
<table>
<thead>
<tr>
<th>Personnel</th>
<th>Phase</th>
<th>Type of Curriculum Change</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Faculty</td>
<td>I. Planning</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teachers</td>
<td>II. Organizing &amp;</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Implementation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Department</td>
<td>III. Evaluating &amp;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chairman</td>
<td>Continuing</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Policy &amp; Decision</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Making</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Participation</td>
<td></td>
<td></td>
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<tr>
<td>(list others)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level I Administrators</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Principal</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Deans</td>
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<td></td>
</tr>
<tr>
<td>(list others)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level II Administrators</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Curriculum</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Specialists</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coordinators</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Superintendents</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>President/</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vice President</td>
<td></td>
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</tbody>
</table>
Lesson Three: Organization, Design, and Implementation

Objective

Upon completion of this lesson, the student will be able to: (1) diagram or outline the procedures for identifying, designing, implementing, evaluating, and maintaining a curriculum change; and (2) organize a plan, assign duties, and assist individuals or teams responsible for the development of each phase of the change process.

Overview

This lesson deals with the very heart of curriculum change, the actual design, development, and implementation of instructional programs and the interaction of the personnel involved in the change process.

Today the curriculum planner in vocational education must not only be competent in an occupational area; he must also be an innovator, a planner, a director, and an evaluator of change.

We live in an ever-changing society, a world without margins. This is especially evident in vocational education. It has been suggested that we should stamp vocational education programs "Subject to change without notice." While this may be somewhat of an over-statement, it nonetheless is one of the fundamental issues facing vocational educators. How do we react to the changing needs of society?

If we are to respond to the changing needs of society, we must have a clear understanding of change as a process and how individuals react to it. Fabun defines change in terms of the individual and his perception of the phenomenon:

"Change may be described as a measurable difference that an organism experiences in relation to its environment. It is an individual reaction inside a nervous system. It is not, for the most part, the world that changes; it is our experience of it."

Any change or adjustment in a curriculum will inevitably involve people, and how they perceive the change will greatly affect their attitude and participation in the project. Therefore, curriculum planners should be aware of two very important principles of human behavior and how most individuals are likely to react to change. First, people generally
resist change. They are comfortable in their environment and a change may mean venturing into the unknown and the untried, and pose a threat to their security. Second, people are more likely to support and accept change if they are active participants in the process. You must have the support of the teachers and the administration if your program is to be successful. I cannot over-stress the importance of involving those responsible for instruction in the process; otherwise you are likely to have two programs: (1) the one you developed and is printed as the curriculum guide, and (2) the "hidden curriculum" or what actually is taught behind the closed doors of the classroom.

With this in mind, the curriculum planner is ready to proceed through the phases of curriculum change; namely, program identification, design and development, implementation, continuation and evaluation, and the coordination of the project.

Suggested Activities

(1) Develop a check list identifying the characteristics or attributes of a quality program in vocational education. This may be used later in the evaluation process as the basis for part of the criteria.

(2) Using the phases identified in the "Simplified Curriculum Development Model" (Appendix B), develop a plan or management chart for the completion of a major curriculum change such as a new program or course or an extensive revision of either one. In your plan identify the tasks, who will be responsible for them, and a time line for their completion.

(3) As the individual responsible for the development of a new program, prepare a brief report describing the program and requesting support.

Suggested References


Upon successful completion of assigned activities, proceed to Lesson 4.
IMPLEMENTATION OF CHANGE

Lesson Four: Continuation and Evaluation

Objective

Upon satisfactory completion of this lesson, the student will be able to:
1. identify the criteria to be used in evaluating a curriculum change;
2. develop a procedure for conducting a follow-up study and analyzing the results; and
3. develop a plan for delegating responsibilities for the continuation and evaluation of the program.

Overview

The purpose of this lesson is to provide the students with an overview of the evaluation process and encourage them to incorporate it into any curricular change. Too often curriculum evaluation is an afterthought or an unsubstantiated opinion rather than a planned procedure designed to provide pertinent information.

Suggested Activities

1. Have a class discussion defining curriculum evaluation.
2. Develop curriculum evaluation instrument listing the criteria for program resources, goals, objectives, content, and activities. This would be a short term evaluation process providing immediate feedback for program revision.
3. Develop the instrument and procedures for conducting a follow-up study to determine the overall effectiveness of the program relative to the needs of the occupation.
4. Identify the individuals and support function necessary to maintain and evaluate a program.

Suggested References


Upon completion of the assigned activities in this module, you should be ready to take the Module Posttest. See your instructor for directions and measurement criteria.
APPENDIX A

EXCERPT FROM A PAPER PRESENTED
BY

DR. J. ROBERT WARMEROD

"NATIONAL ISSUES AND TRENDS IN VOCATIONAL EDUCATION"

AT THE COMMON CORE CURRICULUM WORKSHOP

FRESNO, CALIFORNIA

1978
The first major issue I'd like you to think about will be labeled "the purposes of vocational education at the secondary school level." Perhaps you do not see this as an issue or that the purpose of secondary school vocational education is an area of controversy. I would not necessarily label it as an area of controversy; however, I am convinced that it is an area we must begin to give some very serious thought to. I do not think that we can consider this a settled issue—that the only purpose of vocational education at the secondary school level is to prepare for employment. One reason I make this statement is because of the influence of the career education movement.

Since 1971, when former Commissioner of Education Marland gave a speech about career education, there have been various definitions of what career education is, how it relates to vocational education, and how it relates to general education. Basically, I think, what the career education movement is doing is calling our attention to some important concepts about the psychology of career development. We are being reminded that we had better pay a great deal of attention to how people go about selecting careers and how they grow and develop in these careers. For example, one point being made is that career development isn't a lockstep linear process. We in vocational education need to be reminded a great deal about some of these very basic underlying concepts. My opinion is that we in vocational education have been operating on some fairly shaky assumptions about how young people make occupational choices and the extent to which occupational choices are stable throughout a period of time.

Let's take a look at some of the research that has been designed to evaluate the effectiveness of vocational education at the secondary school level. Almost every evaluative study of national import has not only been getting a great deal of visibility, but the conclusions tend to shake up the vocational education establishment. Let me read a few conclusions from those national studies. Some of you probably are familiar with the controversial report, Work in America, which was prepared by a group of well-known people who are scholars in their areas of specialty. They looked at the effectiveness of vocational education at the secondary school level; here is what they concluded: "Vocational education in the high schools has failed to give students useful skills or place them in satisfying jobs." The members of the task force preparing the report argue that "skill training in the high school invites too early career tracking and seldom provides students with usable skills." Economists from the University of Wisconsin, who studied a nationwide sample of vocational students three years after they had graduated from high school, branded as a "half-truth" the notion that vocational education is designed to prepare people for entering into the world of work. Even the National Advisory Council on Vocational Education in their 1968 report, Vocational Education—The Bridge Between Man and His Work, warned that "vocational education cannot be meaningfully limited to skills necessary for a particular occupation."
What does this have to do with the preparation of vocational teachers? An essential ingredient of teacher preparation has to do with what types of programs teachers are taught to implement once they begin to teach. If teachers see vocational education as being limited to a "preparation-for-work" purpose only, then they’re going to implement programs that are different from programs implemented by teachers who see vocational education as serving not only that purpose but also additional purposes. I’m going to argue that vocational education at the high school level can serve purposes in addition to preparation for employment. Don’t misunderstand what I’m saying. I am not arguing that preparation for employment is not a major goal of vocational education in the secondary schools. I am saying that some students who enter a vocational program that has that major goal also can profit from other benefits of vocational education.

Let me just summarize my position this way. One of the reasons people reach the conclusions about the effectiveness of vocational education that I have just quoted is the separation between vocational education on one hand and what we call general education on the other. If we look at the extreme positions, it falls out about this way. Some people consider preparation for the world of work as the exclusive domain of vocational education, while preparation for life—whatever that is—is considered to be the exclusive domain of the general education curriculum. Those of you who really know what goes on in schools know that degree of separation is not possible or true. My argument is that we in vocational education must admit that some of the major skills that determine whether or not a person is successful in the world of work are the so-called general education skills—the ability to read, to write, to speak, to communicate, to listen, to use numbers, and to get along with people. We must constantly be aware of the fact that a student learns these skills in general education courses as well as in vocational courses. We need to encourage students to realize that what is going on in English class, what is going on in mathematics class, and what is going on in science class is just as important to success in the world of work as the specific occupational skills that are taught in vocational courses. What I am arguing is that we have got to break down the walls that have separated general education from vocational education. We need to take the initiative in building the case for an integration of general education and specific occupational skills in preparing for employment. Let me give you a good example of this separations. Those of you that are members of the American Vocational Association will be receiving a notice soon concerning a major development in national legislation for vocational education. Here is what is happening. The National Education Association, The National School boards Association, The American Council on Education, The American Association of Junior and Community Colleges, The Association of State Universities and Land Grant Colleges, The American Association of School Administrators, and The American Personnel and Guidance Association have gotten together to draft their version of vocational education legislation without consultation with AVA officials or vocational educators. If we are now in two camps, as this lineup of educational organizations indicates, it seems to me that it fairly good evidence that we are going to have to get together if we’re going to be able to take a look at the total picture.
In the final analysis, the purposes served by vocational education are determined by what teachers do in the schools. We can talk about it all we like, but the actual purposes served by vocational education are what teachers do in the classroom, in the laboratory, and during on-the-job instruction and supervision. My point is that the preparation of teachers determines to a great extent what the prospective teacher's perceptions are as to what vocational education should be. Therefore, in teacher education programs, whether it's instructional modules that we develop, what we say, or what we do, we are communicating a philosophy or point of view about the purposes of vocational education in the secondary school. Instructional modules will carry a point of view of what vocational education is. When we instruct prospective teachers in how to develop a vocational program and when we suggest various strategies and activities, we have a great deal to say about the nature and purposes of vocational education. I don't want to go overboard on this particular concern, but I think one of the major issues that is important, particularly in this legislative year, is what vocational education is all about. We are either going to move further in separating vocational education from the rest of the public school curriculum or we're going to attempt to realize that general education is an essential ingredient in adequate preparation for employment.
APPENDIX B

A SIMPLIFIED CURRICULUM DEVELOPMENT MODEL

The intent of this paper is to describe the major elements of the simplified curriculum development model shown in Figure 1, page 24. It is recommended that the model and the following description be used as a general guide and the curriculum planner should develop a comprehensive list of specific tasks appropriate to the type of change, and any characteristics unique to the program undergoing revision.

The four major elements or phases of the curriculum process are: (1) identification, (2) design and development, (3) implementation, (4) continuation and evaluation.

Program Identification

(1) Awareness

The initial step in the change process is not actually a step; it is a condition which should exist throughout the career of a vocational educator. The curriculum planner in vocational education must be well informed on current issues and be receptive to the concerns expressed by various agencies, professional groups, and individuals. The information gained from these sources often provides the first indication that a change in the curriculum may be necessary.

(2) Needs Assessment

Assuming that the curriculum planner has identified an area of potential need, he must conduct an assessment of the combined needs of the occupational area, the educational system, and the student. The data produced by these assessments must then be analyzed and the implications for program development evaluated.

(3) Type of Change

If an identifiable need exists, the curriculum planner must begin to translate that need into educational programs and make a tentative decision on the type of change necessary to meet the need. When a tentative decision has been reached regarding the extent of the change, the curriculum planner should conduct a preliminary review of the resources required and their availability. If this survey is properly structured, it will provide insights into a series of questions regarding the feasibility of the program.
Program Design and Development

(4) Develop a Statement of Program Requirements.

This element specifies the general skills, knowledge, and attitudes necessary to meet the occupational requirements identified by the needs assessment.

(5) Identification of Student Population and Needs

This element identifies the characteristics of the students the program will be designed to serve. The educational level, age, occupational orientation represent a few of the student characteristics to be considered.

(6) Develop Goals

Once the requirements of the program have been established and the student population identified, the goals of the program may be developed.

(7) Specify Objectives and Develop Curriculum

Having identified the resources, personnel and materials available, the goals and the students, the curriculum planner may now wish to utilize the competencies of the instructors to develop the program. The curriculum planners should take precautions to insure that the specific objectives developed are relevant and compatible with the clientele served, and the programmatic goals which have been identified. At this point it may be necessary to reexamine the requirements, goals, etc., of the program and determine the appropriate format to be used.

(8) Select Methods and Materials

This element is usually designed in conjunction with item 7 and its limitations are determined primarily by the resources available in the local educational system.

Program Implementation

(9) Obtain Instructional Resources

This may be initiated and carried out concurrently with elements 7 and 8. There are basically two categories to consider under instructional resources: (1) Personnel, and (2) Materials. Materials would include facilities, budget, supplies, instructional media, etc., and their acquisition will require a great deal of coordination with administration. Personnel includes both the support staff and instructional faculty.
A plan must be devised to inform maintenance personnel, counselors, prospective employers, etc., of the program and its capabilities.

At the same time a plan must be developed to prepare the teacher for the change. Depending on the extent of the change, this could include the preparation of a Curriculum Guide, inservice workshops, or individual meetings; however, this must be done if the program is to be successful.

(10) Conduct Program

The ultimate test of the program is the result of the preceding elements.

Program Continuation and Evaluation

(11) Continuation

The procedures and responsibilities for supervision, consulting, and continued support should be a part of the proposed curriculum change.

(12) Evaluation

Evaluation procedures should be designed in two parts. First, a system for immediate feedback which would provide information primarily relating to the instructional process; comparing achievement to the objectives, the time allowed for each unit, etc. Second, a long range evaluation which might take the form of a follow-up study comparing student performance on the job to the over-all goals and objectives of the program.

Information obtained from the evaluation process will enable the curriculum planner to determine what revisions are necessary to make the program more effective or to delete it if it no longer serves a need.
Figure 1. A Simplified Curriculum Development Model

PROGRAM IDENTIFICATION

AWARENESS → NEEDS ASSESSMENT

TYPE OF CHANGE

Statement of Program Requirements

Identification of Students

Develop Goals

Specify Objectives

Develop Curriculum

Select Methods and Materials

DESIGN & DEVELOPMENT

EVALUATION

Evaluation

Continuation

IMPLEMENTATION

Conduct Program

Obtain Instructional Resources

Continuation
IMPLEMENTATION OF CHANGE

MODULE PRE/POSTTEST

Student
Instructor
Date

Student: This pre/posttest is designed to assess your knowledge of the implementation of change. Since this module is an individualized and competency-based learning device, you will need to study only those lessons that are presented on the basis of your response to this test.

1. What type experiences have you had with curriculum change? (Check the appropriate statements.)
   - Conducted needs assessment
   - Developed and completed new course
   - Revised a course
   - Conducted a formal curriculum evaluation
   - Participated on a curriculum development teach.

Please list additional responsibilities or involvement.

2. List five of the factors which influence the development of vocational (1) education curriculum.
   a. 
   b. 
   c. 
   d. 
   e. 
3. List five sources, agencies, groups, individuals, which could provide the initial indications for a curriculum change.
   a.
   b.
   c.
   d.
   e.

4. Identify a contemporary issue and discuss the implication for possible vocational education curriculum changes.
5. Identify three basic types of curriculum change.
   (L2)
   a. 
   b. 
   c. 

6. Discuss the basic characteristics of the following approaches to curriculum development.
   (L2)
   a. Job analysis:
   b. Functions of industry:
   c. Cluster:

7. Identify the key personnel most likely to be involved in a curriculum change in a local district.

8. Identify five criteria which could be used to insure the development of a quality program.
   (L3)
   a. 
   b. 
   c. 
   d. 
   e. 
9. Describe or diagram the procedural steps involved in the development of a new course.

10. Identify criteria which could be used to evaluate program goals and objectives.
IMPLEMENTATION OF CHANGE

ANSWER KEY

MODULE PRE/POSTTEST

Instructor: Do not reproduce this page in students' booklets. You must retain it for grading and prescriptive purposes. Answers will vary with individuals. A preferred response might be similar to the answer presented.

1. Pretest question for instructor's information.

2. a. Population mobility
   b. Mobility within an occupation
   c. Manpower needs, local, state, national
   d. Emergence of special groups, minorities, women, handicapped
   e. Legislation—local, state, federal
   f. Advances in science and technology, health, computerization, communications, energy, etc.
   g. Outdated or inappropriate programs
   h. Development of curriculum at leading educational institutions of higher learning
   i. Response to the change in the age structure of the American society

3. a. Exterior funding sources (private and government)
   b. Professional organizations
   c. Professional educators (teachers, administrators, etc.)
   d. Industrial leaders
   e. Union leaders
   f. Political leaders

4. The answer to this question may vary widely with respect to local conditions. However, a typical response might be:

   a. Serving the Handicapped
      i. Identify the physical competencies required in each course
      ii. Identify occupations whose performance requirements are within the capability of the handicapped.
5. a. New program (series of courses)  
    b. New course  
    c. Revision of existing program  
    d. Revision of existing course content  
    e. Deleting a program  
    f. Deleting a course  
    g. Change in scope  

6. a. Job analysis: Analyze specific job to determine the competencies required. Prepares students for a specific job.  
    b. Functions of industry: A conceptual approach which basically emphasizes the functions of a particular industry, rather than specific occupations.  
    c. Cluster: Analyzes groups of occupations and attempts to develop a program which provides the skills and knowledge common to each; thus providing the student with a broad spectrum of entry level opportunities.  

7. a. Teacher  
    b. Department chairman  
    c. Principal  
    d. Vocational coordinators, consultants, etc.  
    e. Director of vocational education  
    f. Media specialists  
    g. Teacher educators  
    h. Research staff - outside consultants  
    i. Chief administrator of school system  
    j. Board of educators  

8. a. The program serves an identifiable need.  
    b. It is financially feasible.  
    c. It may be initiated in existing physical facilities.  
    d. It could be initiated as a pilot program.  
    e. The effectiveness of the program can be measured and/or observed.  

9. a. Identification, awareness  
    b. Assessment  
    c. Identify change necessary  
    d. State program requirements  
    e. Identify students  
    f. Develop goals  
    g. Specify objectives  
    h. Develop curriculum  
    i. Select methods and materials  
    j. Obtain instructional resources  
    k. Conduct program  
    l. Maintain program  
    m. Evaluation  

10. a. Are goals easily understood?  
     b. Are goals consistent with occupational requirements?  
     c. Are goals realistic in terms of material and personnel available?  
     d. Are goals and objectives attainable by the students served?  
     e. Do the objectives relate directly to the goals?  
     f. Do the activities and content follow the objectives?
MODULES -- COMMON CORE CURRICULUM FOR VOCATIONAL EDUCATION

Category A: Introduction to Vocational Education
A-1 History, Philosophy, and Trends in Vocational Education
A-2 Scope, Function, and Organization in Vocational Education
A-3 Vocational Legislation
A-4 Assessing the Job-Market and Employment Trends

Category B: Cooperative Relationship
B-1 Rationale for Cooperative Relationships
B-2 Advisory Councils
B-3 Cooperative and Work Experience Programs

Category C: Vocational Students
C-1 Promoting Vocational Education and Recruiting Eligible Students for Vocational Education
C-2 Assessing Students' Personal Characteristics
C-3 Guidance and Counseling
C-4 Assisting Students with Special Needs in Vocational Education Program
C-5 Assessing the Needs of the Disadvantaged Student
C-6 Developing Student Leadership Qualities in Vocational Education Programs
C-7 Student Organizations

Category D: Administration and Supervision
D-1 Fiscal Management of a Vocational Education Program
D-2 Writing a Vocational Education Project/Budget
D-3 Record Keeping in Vocational Programs
D-4 Conference Leadership
D-5 Selection, Supervision, and Evaluation of Personnel
D-6 School Law and Its Relationship to Vocational Education
D-7 Staff Development
D-8 Implementation of Change

Category E: Curriculum Design in Vocational Education
E-1 Developing a Curriculum Design in Vocational Education
E-2 Applying Learning Theory to Vocational Education
E-3 Instructional Strategies

Category F: Stages and Structure of Curriculum Development
F-1 Theories in Curriculum Development
F-2 Building a Curriculum for Vocational Education
F-3 Applying Curriculum Specifics to Vocational Education
F-4 Safety

Category G: Evaluation and Research
G-1 Evaluation Models
G-2 Evaluation Procedures for Local Programs
G-3 Introduction to Research Procedures in Vocational Education
G-4 Research Design in Vocational Education
G-5 Development of a Research Proposal in Vocational Education