This module on the development of a research proposal in vocational education is one of a set of five on evaluation and research 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, three lessons are presented: (1) the statement of the problem; (2) review of the literature, and (3) design of the study. Each lesson contains the objective, overview, a list of suggested learning activities, and a list of suggested resources (readings). Concluding the module is 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

G-5

DEVELOPMENT OF A RESEARCH PROPOSAL IN VOCATIONAL EDUCATION

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Category G:
EVALUATION AND RESEARCH

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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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COMMON CORE CURRICULUM
FOR
VOCATIONAL EDUCATION

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DEVELOPMENT OF A RESEARCH PROPOSAL IN VOCATIONAL EDUCATION

Module Objective

Upon the satisfactory completion of this module, the vocational education student will be able to demonstrate an ability to apply scientific research procedures to the development of a research proposal in vocational education.

Module Overview

Note:

It is recommended that the modules "Introduction to Research Procedures in Vocational Education" and "Research Design in Vocational Education" be completed prior to undertaking a study of this module.

One of the most difficult tasks in a research effort is to identify a problem to be studied and to establish its parameters. The specific thrust of this module is to provide you with experiences in identifying and clearly writing a problem statement, reviewing literature to support the problem, and writing of a proposal centered around the problem. The following lessons are included to accomplish the goals of this module:

1. The Statement of the Problem
2. Review of the Literature
3. Design of the Study
Resource Materials for Completing the Activities in this Module


Lesson One: The Statement Of The Problem

Objective

Upon the satisfactory completion of this lesson, the vocational education student will be able to:

1. Identify a research problem in vocational education

2. Present in writing introductory and background information regarding the problem; the purpose and significance of the study; the statement of the problem including any hypotheses or questions to be answered; the scope of the problem including assumptions, limitations, or delimitations; and definitions of appropriate terms.

Overview

The first section of a research report should present the problem, its nature, scope, and significance. Generally, this section will include background information which will logically lead into a formal statement of the problem to be investigated. This section should be aimed at "selling" the research effort.

The identification of a suitable research problem, as a general rule, is a task that requires consultation with specialists in your area of study, and a review of the literature. Your task in this lesson will be to give consideration to many different problem topics, and finally to narrow the list to one problem that has the greatest merit and is of special interest to you.

Suggested Activities

1. Discuss the importance of the statement of the problem in research.

2. Review several master's theses in your area of specialization, and indicate if a clear statement of the problem was presented, and if the writer was able to convince you of the importance of the study.

3. On the basis of your review of the literature and consultation with specialists in vocational education, identify at least three research problems. For each of the identified problems, prepare a one-page report indicating the need for study and the importance of the problem to vocational education.
Using appropriate writing style and research format, prepare a paper on an approved problem in vocational education. The paper should address each of the following areas:

a. Introductory and background information regarding the problem
b. Purpose and significance of the study
c. Statement of the problem including any hypotheses or questions to be answered
d. Scope of the problem including assumptions, limitations, or delimitations
e. Definition of appropriate terms

As you prepare the research proposal, subject it to "Questions to Be Asked by the Student in Planning a Research Project in Education" by P.M. Symonds printed in the Journal of Educational Psychology, 47 (1956), pp. 101-109.

a. Scope and Definition of Study
1. Is your problem being considered broadly enough?
2. Have you sufficiently limited your problem?
3. What are the educational implications of your study?
4. Have you governed your decisions by the experiences of investigators who have preceded you?

b. Hypotheses
1. What are the hypotheses?
2. Are the hypotheses clearly and precisely stated and in a form that permits them to be tested?
3. Is it better to hazard a hypothesis or to ask a question?
4. Has the study been restricted to one or a few principal hypotheses to be tested?
5. Are your hypotheses independent of one another?
6. Is it better to hypothesize casual factors or merely to hypothesize relationships?

c. Background
1. Have you made a thorough, careful review of the literature pertaining to your problem?
d. Definitions

1. Have proper distinctions been made between concepts?
2. Have concepts been adequately analyzed so as to distinguish between small, but significant differences in method, materials, subject, setting, etc.?
3. Are terms used clearly and unequivocally?
4. Are concepts adequately and accurately defined?
5. Do some of your concepts require restrictive definitions?
6. From what (whose) point of view are you defining your terms?
RESOURCE MATERIALS FOR COMPLETING THE ACTIVITIES IN THIS MODULE


Upon successful completion of assigned activities, proceed to Lesson 2.
DEVELOPMENT OF A RESEARCH PROPOSAL IN VOCATIONAL EDUCATION

Lesson Two: Review Of The Literature

Objective

Upon the satisfactory completion of this module, the vocational education student will present a preliminary review of the literature in support of the research problem identified in Lesson One of this module.

Overview

A review of the literature involves the researcher in locating, reading, and evaluating material that is specifically related to his/her own research endeavor. The review of the literature should help the student discover what is already known about a problem, what others have attempted to find out, and possible strategies that may be used in a research effort.

Definite skills are involved in conducting a search of the literature; it is the purpose of this lesson to give you an opportunity to develop and refine your research skills in reviewing the literature.

Suggested Activities

(1) Borg, Research in Education, 1971, Second Edition, Chapter 3, presents three basic steps for reviewing the literature. Discuss these three basic steps.

(2) As you review the literature, show evidence that you have developed a logical procedure for collecting and organizing data.

(3) Prepare in appropriate writing style and research format, a preliminary review of the literature, including a bibliography, appropriate to the research problem identified in Lesson One of the module.

Upon successful completion of assigned activities, proceed to Lesson 3.
RESOURCE MATERIALS FOR COMPLETING THE ACTIVITIES IN THIS MODULE


Objective

Upon the satisfactory completion of this lesson, the vocational education student will be able to identify and describe the research plan for the research problem identified in Lesson One of this module.

Overview

Before any project is initiated, the major and subordinate objectives must be identified in order for the major goals of the project to be accomplished. The fundamental purpose of the research plan is to identify the many different parameters of the study and to describe the procedures to be followed to attain the objectives of the study.

The specific purpose of this lesson is to give you experience in identifying the major elements of a research plan.

Suggested Activities

1. Prepare in appropriate writing style and research format the research plan for the problem identified in Lesson One of this module. The plan should include information about the following:
   a. Data gathering instruments
   b. Target population and procedures for sampling
   c. Data analysis procedures
   d. Basic outline for procedures to be used in reporting the research findings

2. Identify the basic elements of a research proposal in which supporting funds are requested.
RESOURCE MATERIALS FOR COMPLETING THE ACTIVITIES IN THIS MODULE.


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.
Student: This pre/posttest is designed to assess your knowledge about basic concepts related to the development of a research proposal; however, the final evaluation of your work in this area will be based on your ability to develop a research proposal. 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. Discuss the importance of the statement of the problem as it relates to a research proposal.

2. Identify and discuss some of the major elements that should be included in a research proposal.

3. Discuss the importance of the review of the literature as it relates to a research study.
Pre/Posttest (continued)

4. Identify several reference sources for conducting a review of the literature in vocational education.

5. Discuss the importance of and indicate several items that should be considered in the research plan.
DEVELOPMENT OF A RESEARCH PROPOSAL IN VOCATIONAL EDUCATION

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. The statement of the problem is crucial since it delineates specifically what is to be investigated, what is relevant, what is irrelevant, and what constitutes an effective approach to its solution.

2. a. Introductory and background information regarding the problem
   b. Purpose and significance of the study
   c. Statement of the problem including any hypotheses or questions to be answered
   d. Scope of the problem including assumptions, limitations, or delimitations
   e. Definition of appropriate terms

3. A thorough review of the related literature is an integral part of research. It helps the researcher in the clarification of his problem and the avoidance of duplication, the formulation of appropriate hypotheses, the planning of the research design, and in gaining insights for interpreting the research findings.

4. a. Education Index
   b. Readers' Guide to Periodical Literature
   c. Government Documents
   d. ERIC
   e. Periodicals and Journals in your area of specialization

5. The fundamental purpose of the research plan is to identify the many different parameters of the study and to describe the procedures to be followed to attain the objectives of the study. The following basic elements should be considered in the research plan:
Pre/Posttest Answer Key (continued)

a. Target population and procedures for sampling
b. Type of data gathering instruments
c. Procedures for analyzing data

d. Outline for reporting research findings
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