DOCUMENT RESUME

ED 231 970 CE 036 379

TITLE	Use Inquiry Skills to Help Improve Vocational Education Programs. Module LT-I-2 of Category I--Program Improvement. Competency-Based Vocational Education Administrator Module Series.
INSTITUTION	Ohio State Univ., Columbus. National Center for Research in Vocational Education.
SPONS AGENCY	Consortium for the Development of Professional Materials for Vocational Education.
REPORT NO	ISBN-0-89606-140-X
PUB DATE	83
NOTE	83p.; For a related document, see CE 036 378.
AVAILABLE FROM	American Association for Vocational Instructional Materials, 120 Driftmier Engineering Center, University of Georgia, Athens, GA 30602 ($5.15).
PUB TYPE	Guides - Non-Classroom Use (055)
EDRS PRICE	MF01/PC04 Plus Postage.
DESCRIPTORS	Administrator Education; Behavioral Objectives; Case Studies; Competence; Competency Based Education; Data Collection; Decision Making; *Decision Making Skills; Information Seeking; *Inquiry; *Inservice Education; Learning Activities; Learning Modules; Postsecondary Education; Program Improvement; *Questioning Techniques; *Questionnaires; Research Methodology; Technical Education; *Vocational Directors; Vocational Education

ABSTRACT

This module is one of a series of learning modules designed to help vocational education administrators to improve their skills. The module addresses two types of information-gathering or inquiry skills that will help an administrator collect information for decision making: (1) developing and using questionnaires and structured interview schedules, including how to decide which is appropriate for a particular situation and how to design and use the appropriate instrument; and (2) using small-group techniques to gather and organize information for decision making. The module contains an introduction and three sequential learning experiences. Overviews, which precede each learning experience, contain the objective for each experience and a brief description of what the learning experience involves. The learning experiences contain information sheets, sample forms, case studies, suggested resources, and feedback suggestions, creating a self-contained learning program to introduce the vocational administrator to the use of inquiry skills and to give him/her a solid foundation for using inquiry skills to improve vocational-technical programs. (KC)

Use Inquiry Skills to Help Improve Vocational Education Programs

MODULE
LT-I-2

Module LT-I-2 of Category I—
Program Improvement

COMPETENCY-BASED VOCATIONAL EDUCATION ADMINISTRATOR MODULE SERIES

Consortium for the Development of
Professional Materials for Vocational Education

Robert E. Norton, Consortium Program Director
Carol J. Spencer, Graduate Research Associate
Judith A. Samuelson, Research Specialist
Jay Smink, Senior Research Specialist
Lois G. Harrington, Program Associate

The National Center for Research in Vocational Education
The Ohio State University

1983
ISBN 0-89606-140-X

Published and distributed by the **American Association for Vocational Instructional Materials (AAVIM)**, 120 Driftmier Engineering Center, University of Georgia, Athens, Georgia 30302, (404) 542-2586.

Development Sponsorship

The initial development of this module was supported by a contract with the Office of Vocational and Adult Education, U.S. Department of Education (Contract No. 300780032, Project No. 051MH10012). Field testing and revision of the module was supported by the Consortium for the Development of Professional Materials for Vocational Education. The following states have been members for one or more years:

- Arizona
- Florida
- Illinois
- Michigan
- New York
- North Carolina
- Ohio
- Pennsylvania
- Texas

Developed by

THE NATIONAL CENTER FOR RESEARCH IN VOCATIONAL EDUCATION
THE OHIO STATE UNIVERSITY
1960 KENNY ROAD · COLUMBUS, OHIO 43210

The National Center for Research in Vocational Education's mission is to increase the ability of diverse agencies, institutions, and organizations to solve educational problems relating to individual career planning, preparation, and progression. The National Center fulfills its mission by:

- Generating knowledge through research.
- Developing educational programs and products.
- Evaluating individual program needs and outcomes.
- Providing information for national planning and policy.
- Installing educational programs and products.
- Operating information systems and services.
- Conducting leadership development and training programs.

Published and distributed by

AA VIM
AMERICAN ASSOCIATION FOR VOCATIONAL INSTRUCTIONAL MATERIALS
University of Georgia
120 Driftmier Engineering Center
Athens, GA 30602

The American Association for Vocational Instructional Materials (AAVIM) is a nonprofit national institute.

The institute is a cooperative effort of universities, colleges and divisions of vocational and technical education in the United States and Canada to provide for excellence in instructional materials.

Direction is given by a representative from each of the states, provinces and territories. AAVIM also works closely with teacher organizations, government agencies and industry.

The work presented herein was performed by the National Center for Research in Vocational Education on behalf of the Consortium for the Development of Professional Materials for Vocational Education and pursuant to a contract with the Office of Vocational and Adult Education, U.S. Department of Education (Contract No. 300780032, Project No. 051MH10012). Sponsors and members of the Consortium for 1981-1982 included the following states and/or cooperating agencies: the Arizona State Department of Education, Vocational Education Division, and Northern Arizona University; the Florida Department of Education, Division of Vocational Education, and Florida International University; the Illinois State Board of Education, Department of Adult, Vocational, and Technical Education, and Southern Illinois University at Carbondale; the Michigan Department of Education, Vocational-Technical Education Services, and Michigan State University; the Ohio State Department of Education, Division of Vocational Education; and the Pennsylvania Department of Education, Bureau of Vocational Education, and Temple University, Department of Vocational Education. The opinions expressed herein do not, however, necessarily reflect the position or policy of any of the sponsors, and no official endorsement by them should be inferred.

FOREWORD

The need for competent administrators of vocational education has long been recognized. The rapid expansion of vocational education programs and increased student enrollments have resulted in a need for increasing numbers of vocational administrators at both the secondary and postsecondary levels. Preservice and inservice administrators need to be well prepared for the complex and unique skills required to successfully direct vocational programs.

The effective training of local administrators has been hampered by the limited knowledge of the competencies needed by local administrators and by the limited availability of competency-based materials specifically designed for the preparation of vocational administrators. In response to this pressing need, the Occupational and Adult Education Branch of the U.S. Office of Education, under provisions of part C--Research of the Vocational Education Amendments of 1968, funded the National Center for a scope of work entitled "Development of Competency-Based Instructional Materials for Local Administrators of Vocational Education" during the period 1975-77. That project had two major objectives:

1. To conduct research to identify and nationally verify the competencies considered important to local administrators of vocational education.
2. To develop and field test a series of prototypic competency-based instructional packages and a user's guide. One hundred sixty-six (166) high priority competencies were identified and six prototypic modules and a user's guide were developed, field tested, and revised.

Although six modules had been developed, many more were needed to have competency-based materials that would address all the important competencies that had been identified and verified. To meet this need, several states joined with the National Center for Research in Vocational Education in September 1978 to form the Consortium for the Development of Professional Materials for Vocational Education, which has supported the development of additional modules and a guide to vocational education. Those states were Illinois, Ohio, North Carolina, New York, and Pennsylvania. The first five states were joined by Florida and Texas later in the first year.

Additional skills related to the administrator's role in program improvement were identified, and two modules, of which this is one, were developed to deliver on those skills. The development of this module was supported in part by the Consortium and in part by the Office of Vocational and Adult Education, U.S. Department of Education as part of the 1981-82 National Center for Research in Vocational Education contract.

Several persons contributed to the successful development and field testing of this module on using information resources to help improve vocational education programs. Carol J. Spencer, Graduate Research Associate; Jay Smink, Senior Research Specialist; and Judith A. Samuelson, Research Specialist,

assumed the major responsibility for reviewing the literature and for preparing the actual manuscript. Recognition also goes to Lois G. Harrington, Program Associate, who helped conceptualize the module.

Acknowledgement is given to the official reviewers who provided critiques of the module and suggestions for its improvement: Linda Coffey, District Director of Occupational Education, Dallas County Community College District, Dallas, Texas; and Robert E. Klabenes, Campus Director, Southeast Technical Community College, Milford, Nebraska.

Credit goes to Carol J. Spencer, Graduate Research Associate; and Lois G. Harrington, Program Associate, who helped to refine the module for publication after field testing; and to Robert E. Norton, Consortium Program Director, for providing program leadership and content reviews. Thanks go to Ferman B. Moody, Associate Director for Personnel Development, for his administrative assistance.

Appreciation is also extended to Barbara Border, Bill Cisco, Calvin Cotrell, Carroll Curtis, James Haire, Robert Kerwood, George Kosbab, Helen Lipscomb, Aaron J. Miller, Dominic Mohamed, James Parker, Wayne Ramp, and Ray Ryan for their service as state representatives, state department contacts, and field-test coordinators; and to the other teacher educators and local administrators of vocational education who used the modules and provided valuable feedback and suggestions for their improvement. Last, but certainly not least, thanks and credit are due Deborah Linehan and Shellie Schreck, Consortium Program Secretaries, for their patience and expert skill in processing the many words necessary to make this module a quality document.

Robert E. Taylor
Executive Director
The National Center for Research
in Vocational Education

INTRODUCTION

Every administrator faces daily tasks that require decisions. Some of those decisions can be made based on existing knowledge. Some others can be made based on "accepted practice" within the institution. But there are some decisions that are more difficult. An administrator may wish for a "bag of tricks" to help gather the information he/she needs to make those important decisions.

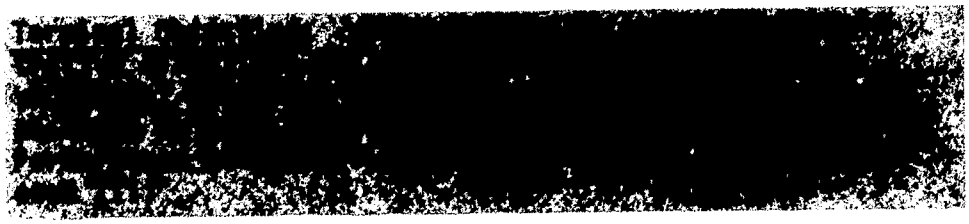
That bag of tricks is what this module is all about. It addresses two types of information-gathering or inquiry skills that will help an administrator collect information for decision making: (1) developing and using questionnaires and structured interview schedules, including how to decide which is appropriate for a particular situation and how to design and use the appropriate instrument; and (2) using small-group techniques to gather and organize information for decision making. Acquisition of the two types of skills presented will allow the new, as well as the more experienced, vocational administrator to make better decisions.

This module is designed to introduce you to the use of inquiry skills and to give you a solid foundation for using inquiry skills to help improve vocational-technical programs.

Module Structure and Use

This module contains an introduction and three sequential learning experiences. Overviews, which precede each learning experience, contain the objective for each experience and a brief description of what the learning experience involves.

Objectives



Enabling Objectives:

1. After completing the required reading, critique the performance of an administrator in a given case study in using a questionnaire to gather program-improvement information. (Learning Experience I)
2. After completing the required reading, use a small-group technique to gather information concerning a given problem situation. (Learning Experience II)

Resources

A list of the outside resources that supplement those contained within the module follows. Check with your resource person (1) to determine the availability and the location of these resources, (2) to locate additional references specific to your situation, and (3) to get assistance in setting up activities with peers or observations of skilled administrators.

Learning Experience I

Optional

- SAMPLES OF QUESTIONNAIRES AND INTERVIEW SCHEDULES that you can review and compare.
- A PERSON EXPERIENCED IN DEVELOPING AND ADMINISTERING QUESTIONNAIRES AND/OR INTERVIEW SCHEDULES whom you can interview.
- REFERENCE: Berdie, Douglas R., and Anderson, John F. Questionnaires: Design and Use. Metuchen, NJ: The Scarecrow Press, 1974.
- REFERENCE: Dillman, Don A. Mail and Telephone Survey; The Total Design Method. New York, NY: John Wiley and Sons, 1978.

Learning Experience II

Optional

- SEVERAL PEERS to role-play staff members in a small-group inquiry activity. If peers are unavailable, an alternate activity has been provided.
- AN AUDIOTAPE RECORDER to record the role-play.

Learning Experience III

Required

- AN ACTUAL ADMINISTRATIVE SITUATION in which, as part of your duties, you can use inquiry skills to help improve vocational education programs.
- A RESOURCE PERSON to assess your competency in using inquiry skills to help improve vocational education programs.

Selected Terms

Administrator--refers to a member of the secondary or postsecondary administrative team. This generic term, except where otherwise specified, refers to the community college president, vice-president, dean, or director; or to the secondary school principal, director, or superintendent.

Board--refers to the secondary or postsecondary educational governing body. Except where otherwise specified, the term "board" is used to refer to a board of education and/or a board of trustees.

Institution--refers to a secondary or postsecondary educational agency. Except where otherwise specified, this generic term is used to refer synonymously to secondary schools, secondary vocational schools, area vocational schools, community colleges, postsecondary vocational and technical schools, and trade schools.

Resource Person--refers to the professional educator who is directly responsible for guiding and helping you plan and carry out your professional development program.

Teacher/Instructor--these terms are used interchangeably to refer to the person who is teaching or instructing students in a secondary or postsecondary educational institution.

User's Guide

For information that is common to all modules, such as procedures for module use, organization of modules, and definitions of terms, you should refer to the following supporting document:

Guide to Using Competency-Based Vocational Education Administrator Materials. Columbus, OH: The Center for Vocational Education, The Ohio State University, 1977.

NOTES

Learning Experience I

OVERVIEW

After completing the required reading, critique the performance of an administrator in a given case study in using a questionnaire to gather program-improvement information.

You will be reading the information sheet, "Using Questionnaires and Interview Schedules," pp. 9-45.

You may wish to complete one or more of the following supplementary activities to become more familiar with questionnaries and interview schedules:

- Obtain and examine examples of questionnaires and interview schedules
- Interview a person experienced in developing and administering questionnaires or interview schedules
- Read one or more supplementary resources, such as the following:

  Berdie and Anderson, Questionnaires: Design and Use

  Dillman, Mail and Telephone Surveys; The Total Design Method
- Practice writing questionnaire or interview schedule items

continued

You will be reading the "Case Study," pp. 47-51, and critiquing the performance of the administrator described.

You will be evaluating your competency in critiquing the administrator's performance in using a questionnaire to gather program-improvement information by comparing your completed critique with the "Model Critique," pp. 53-54.

Activity

For background information about how to design questionnaires and interview schedules and when to use each, read the following information sheet.

USING QUESTIONNAIRES AND INTERVIEW SCHEDULES

Administering questionnaires and conducting structured interviews are two common techniques used by administrators to gather and analyze information. For the purposes of this module, the following definitions will be used:

- Questionnaire--Any instrument that (1) presents information in written or picture form and (2) requires some type of written response.
- Interview schedule--Any structured interview form that is used to ask the same questions of all respondents. The interview does not have to be conducted in person.

The processes for constructing questionnaires and interview schedules are similar, so both will be dealt with at the same time.

Questionnaires and interview schedules can be classified into two general types: descriptive and explanatory. Descriptive questionnaires and interview schedules are used to determine the feelings of a segment of the public. An example of this type of instrument would be the opinion poll or attitude survey. Explanatory instruments gather information that will be used to develop theories to explain relationships or processes.[1] You can tell the difference between the two types of instruments by looking at the questions asked. A descriptive instrument might ask questions about feelings or opinions, while an explanatory instrument might ask about how a person does a task or explains a concept to a class. Again, the processes for developing the two types of interview schedules and questionnaires are similar; only the questions vary.

When deciding whether to use an interview schedule or a questionnaire, you must examine the advantages and disadvantages of each type of instrument. Some of the advantages of the questionnaire are as follows:

- It can be administered to a large group of people.
- It allows respondents as much time as necessary to answer questions.
- It allows anonymity for respondents.
- It is less expensive than personal-contact methods.
- The data are relatively easy to analyze.

---

1. Walter Lindenmann and Cletis Pride, Attitude and Opinion Research: Why You Need It, How to Do It: A Case Handbook (Washington, DC: Council for Advancement and Support of Education, 1977), p. 3. ED 187 251

Use of questionnaires has the following disadvantages:

- Response rate may be low or slow.
- Questionnaires do not offer the flexibility in questioning and answering that is offered by interviews.
- Some questions may receive only partial responses.
- Respondents may fail to answer some questions at all.

Some of the advantages of the interview schedule are as follows:

- It can be used to obtain information from nonreaders.
- Generally a high response rate can be obtained.
- Questions can be clarified by the interviewer.
- Strength of response can be more clearly expressed.

Use of interview schedules has the following disadvantages:

- The interviewer is likely to influence responses; it is not easy to act in an identical manner with all subjects.
- Conducting interviews can be time-consuming.
- Expense can be a problem if the services of interviewers must be paid for.
- Information obtained may not be easy to quantify.[2]

As you answer some of the questions in the preparation stage of your information-gathering activities, you will be better able to choose between the questionnaire and structured interview techniques. The most important factors to think about are time, money, and the type of information needed.

Preparing

The preparation phase of developing questionnaires and interview schedules is of utmost importance to the quality of the final instrument. You as the planner must carefully examine your objectives and your resources. One way this can be done is by answering the following questions:

- What do you want to know?
- Are there hidden agendas?
- How much time is available for gathering information?
- How much money is available for gathering information?

---

2. Adapted from Marlene E. Henerson, Lynn Lyons Morris, and Carol Fitz-Gibbon, How to Measure Attitudes (Beverly Hills, CA: Sage Publications, 1978), pp. 26-30.

What Do You Want to Know?

Why are you considering the use of a questionnaire or structured interview? Do you need to know how certain people think or feel about something you are doing, or are thinking about doing, in your institution? For example, you might want to find out about the following:

- Community interest in adult education offerings
- Student vocational interests
- Employment of former students
- Employee satisfaction with graduates

The first step is for you to be very concrete about what you need to know. You need to develop objectives that clearly express the purpose of your information-gathering effort. Your objectives don't have to be shared with the people who will be responding to the questionnaire or interview schedule, but you may need to share them with other people in your institution who are involved with the information collection. Also, you may be required to have your ideas cleared by a higher-level administrator or standing committee in your school or college. By specifying your objectives, you will force yourself to be clear about what you want to know and why you need to know it. Precise objectives not only make communication clearer, they also help you to make basic decisions about whether the study is worth the time, energy, and resources you may need to expend. In addition, a good set of objectives will help guide the process of designing questions--objectives will keep you focused on the relevant topics.

Consider each of the following objectives. Which one tells you the most about what you may want to know? Which one will be the most helpful in making decisions about the instruments to be developed?

1. Determine how much money welders earn in Lancaster County.
2. Compare the training, salary, age, and length of employment of people employed as welders in Lancaster County in 1982.

Obviously, the second objective tells you much more about what information is needed. The first objective is not bad--in fact it is a good place to begin. It will take some practice, but be sure that you are clear about <u>why</u> you want to conduct the interview or administer the questionnaire and <u>what</u> you want to find out.

Are There Any Hidden Agendas?

Are there things that you want to happen as a result of this survey? This doesn't mean you are trying to discover some deep, dark secret that you don't want to be straightforward about. This means, for example, in addition to gathering information, do you want to raise the awareness level of welders in your community about the training programs offered at your institution? Do you want to stimulate interest on the part of potential advisory council

members? Do you want the community to notice that you are interested in what community members have to say?

These aren't really hidden agendas, but you may not share these objectives with everyone. You should write down any objectives like these, but you need to be aware of when it may, and when it may not, be profitable to share them.

You need to be aware that, almost always, administering the instruments, or even just the act of asking questions, influences those whom you are surveying. It is best to think about how you can most favorably influence these people or keep the influence to a minimum. It is to your advantage not to leave this to chance.

How Much Time Is Available for Gathering Information?

If you need the information by next week, questionnaires or structured interviews are probably not your best bet. Finding a good existing instrument or designing one of your own should not be done in a hurry. By rushing through the development process, you may do more damage than good, and you may end up with data that are completely useless.

If sufficient time is available, some further time factors may help you determine whether structured interviews or questionnaires should be used:

- Conducting interviews takes more time than administering questionnaires. Each person must be contacted and personally questioned. When a potential respondent is first contacted, it is important to be sensitive to the fact that he/she is a busy person. It is unlikely that he or she will have the time, during an initial contact, to respond to the interview schedule. An interviewer should use the first call to introduce him/herself and his/her purpose and to set up a convenient time to conduct the interview. The interview schedule itself may take up to an hour to administer. On a good day, an interviewer may only be able to complete six interviews.
- Questionnaires can be administered to large numbers of people with more speed than interview schedules, but you still have to allow for mailing time--both for sending out the questionnaires and for waiting for them to be returned. If you plan to do any type of follow-up to your first mailing, you will also have to allow for that time. Questionnaire respondents have lives of their own. They may not put as high a priority on completing your instrument as you do. It may take them several days to get around to answering your questions, if they respond at all.

How Much Money Is Available for Gathering Information?

You need to be certain about how much money you have available. Information gathering is not cheap. You must allow for such costs as telephone

calls, postage, letterhead, and printing. You will also have to consider any meeting expenses, wages for extra clerical help, salary for interviewers, and data processing costs. Like everything else, questionnaires can be used to collect data on a luxury scale or on a tight budget. The amount of money you have available will influence the design of your information-collection process. If you are short on funds, some of the things that can be adjusted to lower the costs are as follows:

- Size of sample
- Length of instrument
- Type of reproduction process used
- Who does the clerical work
- Whether an existing instrument or a custom-designed instrument is used
- Data handling

Each of these topics will be dealt with later in this information sheet. If you can't determine the exact size of the budget you have available, at least try to estimate the amount of funds available so you can make intelligent decisions.[3]

Planning

Assume that you've decided to go ahead and design a questionnaire or an interview schedule. Next, you need to decide who will be in charge of the whole information-collection process. You, as the vocational administrator who originated the idea, may be the ideal person to direct the effort. You know the objectives, you know what information is needed, and you have a feel for the way the information can be used. However, in most cases, one individual is not able to handle the total process--to design, administer, and interpret questionnaires or interview schedules. Many people must be involved from the very first step. It is important to involve the right people at the right time to help you do the best possible job of obtaining accurate information.

You need to decide who will direct the project. It may be you or a person you appoint, or your district or institution may employ a person whose specific job description includes activities of this type. Find out! You don't want to get off to a bad start by stepping on someone's toes. In this information sheet, we will assume that you will be directing the project.

---

3. For information about potential funding sources for an information-gathering activity, you may wish to refer to Identify Financial Resources for Vocational Education, part of the Competency-Based Vocational Education Administrator Module Series (Athens, GA: American Association for Vocational Instructional Materials, 1983).

Usually, one individual should not make all the decisions, however. You will need either a formal or an informal advisory group to help you decide on the details. This group can also critique any instruments before they are used. The membership of this group can be drawn from other staff members, community members, advisory committee members, and so on.

Your information gathering may involve only individuals within your institution, or it may involve people from your immediate community or a larger professional community. Keeping this in mind, you need to involve individuals, and sometimes groups, whose cooperation and endorsement will be needed to help make your information gathering a successful effort. It is always best to identify these people and ask for their cooperation before you start working on your interview schedule or questionnaire, rather than after. Not only do you need their cooperation, you may find that they can significantly contribute to many, if not all, of the stages of your project. Following are examples of individuals and groups who should be considered for involvement:

- Policy boards in your area of interest, such as the city council, school board, board of trustees, or county commissioners
- Advocacy groups concerned with problems similar to those your group is investigating
- Staff members of public agencies charged with responsibility for the problems your group is addressing
- Agencies that control resources that may eventually focus on your group's concerns
- Recognized leaders of groups--such as landowners, parents, business leaders, or migrants--who have spoken out on the issues your group is confronting
- State and local vocational advisory councils and committees that have an interest in your vocational programs[4]

The project director may or may not be the only necessary staff for the information-gathering activities. When deciding who should staff the project, several factors should be considered. The project director and advisory group should answer each of the following questions before making final staffing decisions:

- What is the estimated time duration of the project?
- What is the potential available budget?
- How much time does the director have to devote to this project?
- What types of skills are needed (e.g., clerical, data processing)?

---

4. Keats Garman and Carolyn Hunter, Community Surveys: Grassroots Approaches (Arlington, VA: National School Public Relations Association, 1978), p. 3.

- Are specialized skills, such as key-punching, needed?
- Can existing staff be utilized?

By answering these questions, information for making staffing decisions will be pulled together. Outlining constraints, as well as resources, gives the decision makers the best basis from which to make staffing choices to carry out project activities.

Once you have identified who should be involved in planning and carrying out the project, your next task is to think about the pros and cons of media involvement. If the information gathering will involve community response, there may be some real advantages to involving the local radio or newspaper. These two media not only can publicize your efforts, they can serve as follow-up and positive reinforcement tools for you. Remember, your information gathering will probably have some effect on the community besides what you write in your summary or final report. You may as well maximize the positive effects by using the media effectively.

Another major decision that needs to be made is what instrument will be used. You have several options. You may be able to find an existing instrument that fits your needs perfectly. This isn't likely, but it is possible, depending on what you want to find out. Sample 1 lists several sources of existing attitude and aptitude measures. If you are planning to measure attitudes, a serious look at existing resources is recommended. Use of an existing instrument will save you time. In addition, the questions on the instrument will usually have been tested and validated. Therefore, you will be more sure of measuring what you set out to measure, rather than measuring something you're not really interested in. If you are measuring elements other than attitudes, copies of needs assessments and follow-up studies are often available from your colleagues or from your state department of vocational education.

Perhaps you can find an existing instrument--either a published one or one developed by a colleague--that almost fits your requirements, but not quite. You may want to alter the existing instrument to meet your specific needs. (Remember those objectives you wrote earlier?) If you choose this route, be sure that the questions you revise or add are compatible with the questions that you do not change. Make sure that any adapted or adopted questions are focused on your audience, rather than the audience of the previous user. There is one other thing you should remember if you are adopting or adapting an instrument designed by someone else: Be sure you have permission to use the instrument or the questions. Some tests are copyrighted, and you must get a release or pay for the use of the instrument.

There are many qualified and competent people who design questionnaires and interview schedules for a fee. Their fees vary, as does their ability. If you choose to use an outside person to develop your interview schedule or questionnaire, you need to remember that this is a more expensive option. Also, an outside person may not be able to establish credibility with the individuals and groups in your community who are involved. This option does, however, relieve you of the worry involved in developing your own instrument.

SAMPLE 1

REFERENCE BOOKS CONTAINING INFORMATION ABOUT EXISTING MEASURES

Buros, Oscar K., ed. The Mental Measurements Yearbook. Lincoln, NE: The University of Nebraska Press, current edition.

This source contains detailed descriptions of individual tests and includes information on their norms, time needed for administration, availability, and cost. This source also contains reviews and evaluations of the instruments, as well as bibliographic references.

Buros, Oscar K., ed. Tests in Print--Two. Lincoln, NE: The University of Nebraska Press, 1974.

This source provides a comprehensive listing of standardized paper-and-pencil tests that are printed in English.

Buros, Oscar K., ed. Vocational Tests and Reviews. Lincoln, NE: The University of Nebraska Press, in press.

This source contains the business education, aptitude, and vocational sections from all the previous editions of The Mental Measurements Yearbook and is a helpful source for the vocational administrator.

Comrey, A. L.; Backer, E.; and Glaser, E. M. A Sourcebook for Mental Health Measures. Los Angeles, CA: Human Interaction Research Institute, 1973. ED 096 350

This source contains abstracts of lesser-known questionnaires, observation instruments, inventories, tests, and other measures. All the measures are listed by category, and each listing contains a brief description of the measure and instructions for obtaining copies.

Knapp, Joan, comp. An Omnibus of Measures Related to School-Based Attitudes. Princeton, NJ: Educational Testing Service, Center for Statewide Educational Assessment, 1972. ED 074 071

This source contains descriptions of 16 paper-and-pencil, self-report inventories. Descriptions also contain information on the usefulness of each instrument.

If none of these options appeal to you or if you just can't find an instrument that will gather the kinds of information you need, you will have to develop and design your own instrument. People who have never designed a questionnaire or an interview schedule often have the mistaken impression that writing questions is fairly easy. After all, haven't we all filled out our share of questionnaires and responded to numerous interviews? John Ruskin put it well when he said, "To be able to ask a question clearly is two-thirds of the way to getting it answered." Writing a question that is truly clear--that will get you the response that you need--takes time and care. As a beginning instrument developer, remember to take time and be patient, and don't be afraid to pitch your first efforts and begin again.

As your plans are developed, it is very important to formalize them in a format that spells out (1) what activities need to take place, (2) what resources are needed, (3) when each activity will be completed, (4) who is going to do what, and (5) potential problems that may arise in completing each activity. There are several possible formats you can use for this plan. You may have a favorite format that you use for planning. Sample 2 shows one way of organizing all of the information you gather. The boxes have been partially filled in to show you the types of information you might want to include. You can fill in the categories as you make decisions. It is best to use pencil so you can make changes easily. Once you have documented the decisions you have made during the planning stage, you can systematically and rationally deal with developing a budget, constructing an instrument, increasing the response rate, choosing a sample, and analyzing and reporting your results.

Developing a Budget

A budget should be dealt with early in the process, but you can't do a final budget until you have made some of the decisions about how the instrument will be administered and by whom, what instrument to use, and whether you will use consultants. There are several categories to consider; you can make a list of the categories that apply to your questionnaire or interview schedule using the topics that follow.

Telephone

You need to consider any telephone communication needed with other people. If you are doing a telephone survey, this will be a major cost category. If you are using a mailed questionnaire, this category will vary depending on whether you make pre- or post-calls to people in your sample. Your institution may be willing to absorb telephone costs or may want to split the cost of toll calls. Before any final decisions are made about this category, you should check with the person in your institution who has decision-making power in this area.

SAMPLE 2

PLANNING FORMAT

Activity	Resources Needed	Timeline/ Deadline	Responsible Person(s)	Potential Problems
Developing Objectives	Time Quiet place Chalkboard	October 1	Project director Dean of instruction Advisory committee	
Planning	Time Large conference room Copies of objectives			Getting dept. heads to agree on action
Developing a Budget	Information about printing & postage costs Required forms			Do we need any formal approval of the budget?
Securing Instrumentation	Permission to use questionnaire from Johnson County Schools			
Choosing a Sample	List of potential participants Table of random numbers		Project director Clerical help	
Performing Administrative Activities		Mail by Jan. 15 Cut off by Feb. 10		
Processing Data				Who will keypunch data?
Reporting		June 30		Who should get copies of report? How many versions are needed?
Miscellaneous				

Postage

If you are using a mailed questionnaire, postage will be a major budget item. For each person in your sample, you need to know how many pieces of information will be mailed. For example, you may mail a prequestionnaire letter, a questionnaire, and two follow-up mailings. At today's postal rate, that is at least $.80 per person. If your instrument is long, you may need extra postage. If you have 100 people in your sample, you will spend a minimum of $80. There may also be other postage expenses. When you pilot test your questionnaire, additional mailings may be made, so you would need to add postage to cover the number of people who are going to serve as your pilot group. Also, keep in mind that you will have other miscellaneous correspondence. Allow some margin.

If you will be conducting interviews, the postage costs will not be as high. You will have miscellaneous correspondence, and if you need to mail copies of instruments to interviewers who are not located in your immediate vicinity, you will have some additional mailing costs. Try to identify all the potential items that will require mailing.

Printing

Although a questionnaire may involve more printing costs than an interview schedule, printing is a major item for both types of instruments. There is probably more flexibility in the costs in this category than in the previous two, however. First, you must decide the approximate amount of printing that will need to be done. Estimate the number of pages that your instrument will have and the number of pieces of duplicated correspondence that will be sent. Then answer the following questions: Will your letters and instruments be printed on letterhead? Colored paper? Will you use offset printing or photocopying? Your institution may have a print shop that can do your printing much more economically than a commercial print shop. One way of making a budget estimate is to decide on two or three options and then spend some time with one or more printers. They will be able to give you approximate prices for different types of printing and paper. (Such persons are also the best source of time estimates for printing.)

Staffing

The staffing category addresses salaries. If you are lucky, you may be able to use current staff members to work on the questionnaire or conduct the survey as part of their regular job assignments. However, if this is not possible, you will need to estimate how many work hours will be required to complete the tasks. You may need to pay for a certain number of hours of professional staff time, of clerical staff time, and/or for data processing. Staffing will be a major budget item, whether you are producing a questionnaire or an interview schedule. If you are conducting interviews, you will also need to estimate how many interviewers you will need and how much time they will need to complete the interviews. Be as clear as possible about the

kinds and sizes of tasks you will be asking each person to complete. This will help you estimate the amount of time that each person will be needed.

Mileage

If you are conducting interviews and choose to do it in person, rather than by telephone, mileage can be a large expense. You should first check with the business office of your institution to determine the standard amount paid for mileage. You can then estimate the number of miles each person will be traveling and figure your mileage costs. It is best to be generous in your estimates.

Miscellaneous

The miscellaneous category is the place to provide for expenses such as coffee for meetings or the purchase of a reference book on questionnaire construction. You may need to purchase maps to use in selecting a sample population or in locating your respondents. This is also the place to include a little extra to tide you over if your estimates in other categories were short.

Once you have an estimate of your total expenses, you need to determine how your identified expenses match up with the amount of money you have available. With the estimated costs per category in one hand and the amount of money available in the other, you must adjust categories until the two totals match. There is no magic way to reconcile these figures. You must look at your categories and make allowances, look at alternatives, and make hard choices. Rarely will you have a surplus of available funds.

Constructing an Instrument

This is probably the most difficult part of using questionnaires and interviews. Writing questions seems simple enough, but don't be fooled. Writing questions that are clear, concise, and get the information you need is difficult. It takes time and practice. It is a job that benefits from the involvement of several people. The list of steps that follows should guide you through your first try at developing a questionnaire or interview schedule.

Examine Your Population

Before you can construct an appropriate instrument, you need to know who you are going to be questioning. What are some of their characteristics? Are they going to be interested in your effort? What is their level of education? If they are going to be filling out a questionnaire, what is their reading level? Are there times of the day when it is more convenient for them to meet with an interviewer? Would it be better to mail your questionnaire to their office or their home?

You also should be sure that you are asking questions of people who know the answers to those questions. For instance, if you asked members of your community how they felt about reauthorization of the Vocational Education Act, many of your respondents would probably not know enough to respond to your question without additional information. However if you were questioning vocational directors, they would be well acquainted with the issues of reauthorization.

One way you can address the characteristics and knowledge base of your population is to involve members of your potential sample group in the initial construction of questions for your instrument. By doing this, you will be able to address the needs and abilities of your audience.

Know Your Subject

This may seem trite, but you can't ask intelligent questions unless you know what you're talking about. You should gather as much information as possible before you start writing questions. Relevant literature is one of the best sources. Check current research journals, books, newspapers, and government reports. Also, you may be able to involve people who are considered to be experts in the field.

Reexamine Your Objectives

The next step is to double-check your objectives. Are they clear, and do they say everything that you want them to say without saying too much? It is usually a good idea to share copies of your objectives with the other people who are involved in the study to make sure that there is agreement. Remember, precise objectives give direction to the development of your questionnaire or interview schedule.

Develop Instrument Items

Questions on questionnaires and interview schedules are often also called items. There are two basic forms of questions that you should consider: open-ended and structured. Two examples follow:

- Open-ended Question

  How effective do you think the welding program is in providing young people with entry-level skills? _____

  _____

- Closed Question

		Circle One			
The welding program provides young people with entry-level welding skills.	SA	A	U	D	SD

Either type of question can be used effectively on either a questionnaire or interview schedule. You need to consider what type of information is most useful to you. The closed-question format makes it much easier to quantify the data. When you use open-ended questions, all answers must be coded so you can process the group responses. This is more time-consuming, but depending on your needs, it may be the best format. You might want to try out several of each type of question with a group of people who are willing to help you construct the instrument. Ask them which is easier to respond to, and evaluate how easy or difficult it is to analyze their answers. It is permissible to use both types of questions on the same instrument.

A good rule of thumb is not to ask any more questions than you absolutely have to. Many novice instrument makers ask lots of "nice-to-know" questions. You will get a better idea of the opinions and thoughts of your audience if you limit your questions strictly to what you must know.

If you have decided to use closed questions, there are three basic types (see sample 3). The first type can be answered by yes, no, or don't know. The second type provides a list of items; the respondent is asked to rank the items in order of importance, need, or some other factor. The third type of closed question uses a scale that indicates the respondent's level of agreement, interest, or need.

Developing yes/no or ranking questions is relatively straightforward. If you are going to use scales, however, there are a few important considerations. If possible, you should use the same scale throughout your entire instrument. If you must mix scales, group all the questions for each scale together so that you can avoid confusion.

There are two common types of scales that you can consider, depending upon what you are asking. The most common scale is an agreement scale (see sample 3, Type 3). Sample 4 lists other agreement scales that may be useful to you. It is usually better to make use of an existing scale, rather than constructing your own. It is very important that the intervals between levels be relatively equal.

The other type of scale that is commonly used in instruments is the semantic differential scale (see sample 5). This type of scale is used to obtain attitudes toward ideas or objects by using opposing pairs of adjectives. The respondent is asked to place a mark on a scale between the two adjectives indicating how he/she feels toward the object or idea. This type of scale gives a reading of the feelings of the respondent. The person responding should be instructed to mark reactions quickly.

Sample 5 contains pairs of adjectives you may wish to use. If they do not fit your purposes, you can identify your own pairs of adjectives. When you list the adjectives under each idea or object, you should randomly arrange the adjectives. Don't put all the positive adjectives on one side and all the negative adjectives on the other. You don't want your respondent to be overly influenced in a positive or negative direction by the format of your instrument.

SAMPLE 3

CLOSED QUESTIONS

Type 1

	Check One		
	Yes	No	Don't know
Vocational education is an important part of the Palmyra School curriculum	☐	☐	☐

Type 2

Rank the following items in order of their importance to our school curriculum:

Parental support	____
Industry support	____
School administration support	____
General public support	____
Student support	____
Other (specify) _____	____

Type 3

	Circle One				
Vocational education prepares young people with job entry-level skills.	SA	A	U	D	SD*

*SA = strongly agree; A = agree; U = undecided; D = disagree; SD = strongly disagree

SAMPLE 4

AGREEMENT SCALES

Never	Very Much	Very Often
Seldom	Right Amount	Generally
Sometimes	Not Enough	As Often as Not
Frequently	Not at All	Occasionally
No Opinion	Don't Know	Seldom
No Importance	Strongly Favorable	Almost Never
Limited Importance	Favorable	Occasionally
Moderate Importance	Neutral	Frequently
Considerable Importance	Opposed	Almost Always
Very Great Importance	Strongly Opposed	Don't Know
Very Good	Always	Always
Good	Usually	Often
Average	Sometimes	Sometimes
Bad	Almost Never	Seldom
Very Bad	Never	Never
Very Much	Very Strong Effect	
Much	Strong Effect	
Some	Moderate Effect	
Little	Little Effect	
None	No Effect	

SAMPLE 5

SEMANTIC DIFFERENTIAL SCALES

Example

Place a check mark between the dots to indicate your feeling about vocational education. The closer your checkmark is to a word, the more that word describes how you feel.

vocational education

useless . . . . . ✓ . . . useful
economical . . . . . ✓ . . . . . expensive

Adjective Pairs

Negative	Positive	Negative	Positive
Boring	Interesting	Unhealthy	Healthy
Uninformative	Informative	Dull	Lively
Confusing	Clear	Weak	Strong
Irrelevant	Relevant	Unfair	Fair
Superficial	Profound	Dirty	Clean
Biased	Objective	Worthless	Valuable
Purposeless	Purposeful	Useless	Useful
Closed	Open	Passive	Active
Tense	Relaxed	Static	Dynamic
Unhappy	Happy	Unfriendly	Friendly
Angry	Calm	Wrong	Right
Cold	Warm		

SOURCE: Henerson, Morris, and Fitz-Gibbon, How to Measure Attitudes, p. 91.

Design a Format

Obviously designing a format goes hand in hand with choosing question types. There are a few other things to consider, in addition to the questions to be used. Each page should have a reasonable amount of white space and should be printed legibly for readability. Type may be reduced in size, but it should not be so small that it is difficult to read. If you have chosen to use open-ended questions, you need to provide sufficient space for responses to be written.

Rating scales, blanks to be used for marking responses, etc., should be placed in a consistent area on the page to make the tabulation of results easier. If some responses are marked on the left of the page and some are marked on the right, by the time you tally the 200th instrument, you will be very irritated with yourself for not having had more foresight. If someone other than yourself is doing the tallying, you will never be allowed to forget how difficult you made their job.

There are other visual tricks that you may want to employ to make your instrument more appealing. Simple boxes drawn around instructions are useful because they help the respondents focus more closely on what you are asking them to do. If your school or college has a logo or letterhead, you should include that symbol on the front page of the questionnaire. The point is to make the questionnaire as appealing and attractive as possible so that you motivate the respondent to answer all questions in an accurate manner and to return the questionnaire as quickly as possible. Samples 6-9 contain some excerpts from questionnaires and interview schedules.

When you are conducting an interview, you do not need to be quite so concerned about the attractiveness of the interview schedule. Your main concern should be its usability. Can the interviewer read and mark responses on the form with ease? Will the responses be recorded in such a way that the person who transfers the data for analysis will be able to do so quickly and efficiently?

An interview schedule may also contain (1) prompts for the interviewer--indications of the general types of responses expected, which the interviewer can use to "prime the pumps" if a respondent is having difficulty, or (2) suggestions about how to reword questions if necessary. This is helpful, because it provides consistency in the questioning if the interviewer is called upon to clarify a question. The answers you receive should thus be more consistent.

As mentioned in the budget section, you have several options to choose from in deciding how to reproduce your instruments. The best advice is to choose the option that best communicates the impression you want to make--within the limits of your budget. For example, if you are using a questionnaire and it will be completed by local business people, you will want your instrument to appear professional, conservative, and businesslike. You don't, however, want to go overboard and produce a questionnaire that appears to be overly expensive.

SAMPLE 6

QUESTIONNAIRE I

Dear Volunteer:

We are asking you to take a few minutes to complete this questionnaire. As you probably know, Project ASSERT is a pilot project – the first of its kind. One of our goals is to evaluate the usefulness of the project – for you, for the students, and for the school. You can help us to reach that goal by completing this questionnaire. Also, the information you give us may help to change this program and make it better.

Your answers to this survey are confidential. No students or faculty will see your questionnaire. Only the members of our research staff will see how you answered these questions.

Participation is voluntary. If you do not want to answer any of these questions, you certainly do not have to.

Finally, there are no right or wrong answers to this survey. We simply want to find out how you feel about the program.

Thank you for your help.

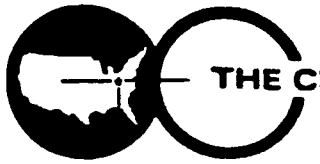
Project ASSERT Research Staff

Based on your brief contact with the program, how satisfied are you with each of the following?

	Very Dissatisfied	Dissatisfied	Neither Satisfied nor Dissatisfied	Satisfied	Very Satisfied
1. Being able to keep busy					
2. The chance to work alone					
3. The chance to do different things					
4. The chance to be "somebody" in the community					
5. The way my supervisor handles people					
6. The ability of my supervisor to make decisions					
7. Being able to do things that don't go against my conscience					
8. The chance to do things for other people					
9. The chance to tell people what to do					
10. The chance to do something that makes use of my abilities					
11. The freedom to use my own judgment					
12. The chance to try my own methods of doing the work					
13. The working conditions					
14. The way my co-workers get along with each other					
15. The praise I get for doing a good job					
16. The feeling of accomplishment I get from the work					

SAMPLE 7

QUESTIONNAIRE II



Respondent Identification Number_____

THE CENTER FOR VOCATIONAL EDUCATION
The Ohio State University • 1960 Kenny Road • Columbus, Ohio 43210
Tel (614) 486-3655 Cable: CTVOCEDOSU/Columbus, Ohio

INCREASING THE IMPACT OF INNOVATIVE PROJECTS

FOLLOW-UP QUESTIONNAIRE

INSTRUCTIONS

The items in this questionnaire relate to the dissemination/implementation strategies developed at the Vocational Education Impact Conference you attended at the Sheraton-Fort Worth Hotel on February 23-25, 1977. We would like to know if you were able to use the dissemination/implementation plans developed at the conference.

Please check your present position (check one):

_____ Local level _____ State level

Your opinions will be pooled with others for a group response to the questionnaire. Your answers to these questions will be held in strict confidence; no individual response will be identified. We appreciate your voluntary completion of this questionnaire. Please place the completed questionnaire in the self-addressed stamped envelope for a prompt return to The Center.

The items in this questionnaire require two types of ratings. The left-hand column indicates the opportunity you have had to use this strategy since the time the conference was conducted. The right-hand column represents the extent of use. Any combination of ratings is possible except for items marked as "no opportunity for use." There would be no use of the strategy if an opportunity for use did not exist. Most of the items should have two ratings when you are finished. For example:

Opportunity for Use		Strategy	Extent of Use				
Yes	No		None or Low	–	Medium	–	High
1	2		1	2	3	4	5
(1)	2	A circular letter was mailed to persons interested in the demonstration project.	1	(2)	3	4	5

A. Opportunity for Use			Strategies	Extent of Use				
	Yes 1	No 2		None or Low — 1	2	Medium — 3	4	High 5
1.	AWARENESS/INTEREST							
a)	1	2	Develop brief commercial and educational television public service spots to inform the public about the benefits and costs of the project.	1	2	3	4	5
b)	1	2	Provide project information to educators from other school districts at national and/or state conferences.	1	2	3	4	5
c)	1	2	Develop a brief slide/sound tape of project activities for presentation to community service organizations.	1	2	3	4	5
d)	1	2	Involve teacher education agencies in the dissemination of project results.	1	2	3	4	5
e)	1	2	Interact with governmental agencies, e.g., CETA, manpower programs, and youth programs, to promote use of project materials.	1	2	3	4	5
f)	1	2	Develop a written dissemination plan.	1	2	3	4	5
g)	1	2	Submit brief progress reports of project activities to various agencies, e.g., Chamber of Commerce, business, industry, and labor for inclusion in their newsletters.	1	2	3	4	5
h)	1	2	Develop printed information, e.g., brochures and flyers about the project which can be distributed to a wide variety of audiences.	1	2	3	4	5
i)	1	2	Submit articles describing the project to professional journals.	1	2	3	4	5
j)	1	2	Develop and distribute a project newsletter to numerous audiences.	1	2	3	4	5
k)	1	2	Use the mass media facilities, e.g., newspapers, radio, and television, for press releases and feature stories to inform the public about the project.	1	2	3	4	5
l)	1	2	Conduct "career days" which highlight the project's materials and activities.	1	2	3	4	5
2.	EVALUATION/TRIAL							
a)	1	2	Identify change agent staff responsibilities and/or position(s) within the project for dissemination purposes.	1	2	3	4	5
b)	1	2	Establish a technical assistance team to help other school districts use project results.	1	2	3	4	5
c)	1	2	Encourage the active consideration of the project by administrators, e.g., principals and assistant superintendents of instruction.	1	2	3	4	5
d)	1	2	Establish and provide incentives, e.g., release time, travel, credit and recognition, to personnel from other school districts to evaluate and try the innovation.	1	2	3	4	5

	Opportunity for Use		Strategies	Extent of Use				
	Yes 1	No 2		None or Low — Medium — High 1	2	3	4	5
e)	1	2	Provide evaluative information on project results to school administrators.	1	2	3	4	5
f)	1	2	Document student achievement of project activities.	1	2	3	4	5
g)	1	2	Establish procedures, e.g., extended visits and internships, for personnel who desire an in-depth knowledge of the project.	1	2	3	4	5
h)	1	2	Develop booklets on how to use project results for other educators.	1	2	3	4	5
3.	ADOPTION/ADAPTION							
a)	1	2	Provide materials which are easily adapted and used in other school districts, e.g., designed in modules, segments, or units.	1	2	3	4	5
b)	1	2	Provide incentives for adoption of materials, e.g., recognition, credit, travel, released time.	1	2	3	4	5
c)	1	2	Obtain the written endorsement of the local and state advisory boards.	1	2	3	4	5
d)	1	2	Use state department personnel to encourage adoption of the innovation by school districts.	1	2	3	4	5

B. Approximately how many local administrators and teachers have been contacted using these strategies during the months of March and April, 1977?

_____ Number of administrators _____ Number of teachers

C. Indicate the primary problems you have encountered since February 1977 in the use of strategies for dissemination/implementation of project results, e.g., lack of time for dissemination activities.

_____

_____

_____

_____

D. Identify a particular strategy which has been effective in implementing exemplary project results from one site to another throughout the state, e.g., statewide meetings of project directors.

_____

_____

_____

_____

SAMPLE 8

QUESTIONNAIRE III

Check one:

☐Pulaski County High School
☐Vocational School
☐Community College

CAREER AND OCCUPATIONAL AWARENESS SURVEY
Cooperative Rural Career Guidance Project

1. Which statement BEST describes how the need for workers in any particular job should affect a person's career choice?

   ☐ a. The need should not be considered because the supply of workers always adjusts to the need for them.

   ☐ b. The need should be considered, but should not completely rule out a career.

   ☐ c. A person should consider only the few career areas that will have new types of jobs in the future.

   ☐ d. A person should consider only the careers that his/her parents feel will have openings by the time he/she is ready to work.

2. Sally wants to be a forest ranger, but she has been told that there are very few openings in that particular career. Which ONE of the following would be the BEST advice for Sally in this situation.

   ☐ a. Do not consider how many openings there are if she has already made up her mind.

   ☐ b. Switch to a different career area that is less interesting to her but for which there is a good opportunity to get a job.

   ☐ c. Postpone making a career choice until after she finishes college.

   ☐ d. Seek a career which is related to her chosen career goal but in which there are more job opportunities.

3. Sam Casey has studied to become an aerospace engineer and soon will graduate from college. He has discovered that he cannot find a job. The answer is the same all over: "We have more engineers than we need." Sam blames himself for not investigating more carefully.

   What should Sam have investigated MORE carefully?

   ☐ a. The names and addresses of more aerospace companies.

   ☐ b. Whether he had the ability to become a good aerospace engineer.

   ☐ c. How many aerospace engineers were graduating from colleges and the number of jobs that were available.

   ☐ d. Whether the college he was attending was preparing him well enough.

SAMPLE 9

INTERVIEW SCHEDULE

Hello, I would like to speak to (NAME ON LABEL). I'm (NAME) from (INSTITUTION). We recently sent you a questionnaire for a study on Vocational Education facilities that we are conducting.

Since we have not received your completed questionnaire, we would like to administer this shortened version on the phone--it should only take about 30 to 40 minutes.

A. In order to make sure you should be included in our study I would like to verify a few items. First all:

	YES	NO
1. Have you already sent a completed questionnaire to us?	[ ]	[ ]
2. Is this a non-public school?	[ ]	[ ]
3. Is this a junior high school?.	[ ]	[ ]

INTERVIEWER CHECK

IF YES AT 1, TERMINATE CONTACT AND SAY: We'll be expecting it in the mail. Thank you for your cooperation.

IF YES AT 2 or 3, TERMINATE CONTACT AND SAY: Our study does not include schools like yours; therefore, I won't have to ask you any further questions. Thank you for your cooperation.

IF NO AT 1, 2, AND 3 CONTINUE WITH 4.

	YES	NO
4. Do you have less than five vocational education classrooms, shops, or labs?	[ ] ↙ (Go to 5)	[ ] ↘ (Go to B)
5. Are you a participant in a regional occupational program?.	[ ]	[ ]*

*INTERVIEWER CHECK, QUESTION 5

IF YES, SAY: This is a special case and we would like to administer the questionnaire to you.

IF NO, SAY: Our study does not include schools like yours; therefore, I won't have to ask you any further questions. Thank you for your cooperation.

B. Is this a "satellite" or extension campus of another institution?

YES. 1
NO . . . . . 2 (Go to C)

(IF YES)*

What is the name of your parent institution?

_____

_____

GO TO D

C. Is this a parent institution of a school having multiple campuses, exclusive of temporary quarters in other institutions?

YES. 1
NO . . . . . 2 (GO TO D)

(IF YES)*

What are the names and addresses of your other campuses?

CAMPUS NAME	ADDRESS
_____	_____
_____	_____
_____	_____
_____	_____

D. Does this school participate in a regional occupational education program involving shared-time programs in two or more high schools?

YES. 1
NO 2

(IF YES)*

What are the names and addresses of the participating schools?

SCHOOL NAME	ADDRESS
_____	_____
_____	_____
_____	_____
_____	_____

*INTERVIEWER CHECK

IF YES TO B, C, OR D ABOVE, SAY: When answering the following questions please answer for your facility or campus only.

SECTION A. INSTITUTIONAL INFORMATION

The first set of questions is intended to provide information about this school facility, its capacity, and the types of programs offered. If you are still engaged in the planning or construction of your new school facility, please answer these questions as they will apply when you are in operation.

TIME BEGAN: _____

A-1 First, which of the following best describes this school: Is it a--

(READ ALL ITEMS AND CIRCLE ONE NUMBER - RECORD HERE AND ON FOLDOUT)

Comprehensive High School. 1

Vocational High School 2

Vocational Center (Shared Time). 3

Technical Institute. 4

Community College. 5

Or Some Other Type of School (IF OTHER, SAY: Would you please describe the program and identify the level of students served?)

TYPE _____

LEVEL _____

_____

	YES	NO	DK
A-2 Is this school a designated "Area Vocational School?"	1	2	8
Is this school a participant in a regional occupational education program?.	1	2	8

INTERVIEWER CHECK, QUESTION A-1

IF CODED 1, 2, 3, or "OTHER"-SECONDARY LEVEL, CONTINUE WITH A-3

IF CODED 4, 5, or "OTHER"-POSTSECONDARY LEVEL, GO TO A-5

A-3 Does this school serve a single school district or more than one school district?

(RECORD HERE AND ON FOLDOUT)

SINGLE SCHOOL DISTRICT. 1

MORE THAN ONE SCHOOL DISTRICT 2

A-4 Is this a senior high school, junior/senior high school, or vocational center?

SENIOR HIGH SCHOOL. 1

JUNIOR/SENIOR HIGH SCHOOL 2

VOCATIONAL CENTER 3

A-5 Which of the following types of students are served by this institution?

(READ ALL ITEMS AND CIRCLE A NUMBER ON EACH LINE - RECORD HERE AND ON FOLDOUT)

	YES	NO
Secondary.	1	2
Postsecondary.	1	2
Adult.	1	2

A-6 Which of the following best describes the population served by your school district or "service area?" Do your students mostly come from--

(CIRCLE ONLY ONE - STOP READING CATEGORIES WHEN R RESPONDS)

A central city of a large urbanized area with a metropolitan area population over five hundred thousand. 1

A suburb of such a large urbanized area. 2

A central city of a medium-sized, urbanized area with a metropolitan area population between one hundred thousand and five hundred thousand 3

A suburb of such a medium-sized, urbanized area. 4

A city and/or urban fringe of a small urbanized area with a metropolitan area population between twenty-five thousand and one hundred thousand 5

A town or school district with a population of less than twenty-five thousand people 7

Or, a regional service area defined as a multi-town service area not elsewhere classified 6

Typesetting and offset printing can make a questionnaire very attractive. This is a more expensive choice, unless you have access to a print shop within your institution. Furthermore, if you are on a tight time schedule, typesetting may be not as fast. A good alternative is a well-typed, photocopied instrument. If the typist uses a carbon ribbon on the original copy, the photocopying will look almost like the original. Mimeographing is a poor third choice, and if you can avoid it, don't use a ditto machine for any reproduction.

No matter which kind of printing/reproduction method you choose, make sure that there are no typographical errors. Errors can be distracting to the respondent. They also make the questionnaire seem most unprofessional. Have two or three people proof your final copy to ensure that it is error-free.

Your instrument should be of reasonable length. Although some research says that the length of the instrument is not directly related to the response rate, the bulk of existing research suggests that long instruments have lower response rates. It is reasonable to assume that a long survey will make some people unwilling to spend the time needed to answer your questions. A general rule of thumb is to keep the completion time of your instrument to 15 minutes or less. Remember, don't ask for any more information than you need. It increases the time required to respond and may make your job of compiling and analyzing the information more difficult.

Develop Instrument Directions

When you write your directions, you should make them as clear and to the point as possible. Keep questionnaire and interview schedule directions simple. There are some differences between the directions needed for the two types of instruments. Questionnaire directions must be sufficient unto themselves--no one will be around to help the respondents figure out just exactly what it is that you want them to do. An example of good instructions follows:

Each of the following items concerns the role/responsibilities of vocational instructors. Read each statement and circle the letters in the right-hand column that most nearly indicate your degree of agreement with the statement. If you strongly agree or agree, circle SA or A respectively. If you strongly disagree or disagree, circle the SD or D respectively. If you are undecided or neutral, circle the U. Limit your responses to how you feel about vocational instructors at your institution.

SAMPLE

Vocational instructors should be paid more than academic instructors. . . . . SA A U D SD

In general, try to write directions that are brief and then add clarifying notes after the directions, if necessary. Try to write the directions so that no additional or supplementary instructions are required.

Develop a Cover Letter

If you are using a mailed questionnaire or are sending presurvey letters for your interviews, you need to spend time and careful thought on the appearance and content of the cover letter or introductory letter that goes to your respondents. The letter should carefully and clearly explain the purpose and content of your study. This shouldn't be too hard, if you developed clear objectives earlier. Be sure that the information you provide is accurate. If you are not providing anonymity for your subjects, for example, then don't even suggest that you might be.

Your initial letter should also be straightforward about any time lines that you have for your study and the return of instruments or completion of interviews. Be sure that the respondents know exactly what you are asking of them. People will be much more willing to cooperate with your efforts if you explain your needs and your expectations.

Just like the instrument itself, the cover or introductory letter should be attractive and appealing. People have many agendas, and your need to have them participate in a study may not be one of their priorities. You need to motivate them. If you have letterhead stationary, use it. If you are sponsored by a group or organization that has some prestige or at least a recognized name, ask if you can mention their support in your letter. You can also use techniques such as colored paper and logos to add appeal and credibility to the letter. Keep your letter concise and do not make it more than one page long.

Pilot Test the Instrument

Pilot testing your instrument is an absolute must. If possible, you should conduct the pilot testing in two phases. The first phase should be the evaluation of the questions against a specific set of criteria. It is best to have someone other than the person who wrote the questions do the checking. Then you should spend time with that person or persons to discuss and rewrite any items that do not meet the criteria.

For each item you have written, you should ask questions such as the following:

- Is there a simpler or more direct way to ask the question?--You should try to limit the length of each question (e.g., 20 words or less) and to limit the number of concepts contained in any one question.
- Are there confusing words in the question?--Some words may be unfamiliar to the respondents or may have more than one meaning or more than one pronunciation. If you are uncertain about a word and how it might be interpreted, ask various people for their interpretations.

- Are there words or phrases that are likely to influence a person's responses for reasons not germane to the issue?--Some words make people nervous, as in this example: "Should teachers forbid students to leave the room without permission?" A better way to state that question might be as follows: "Should teachers require that students ask permission before leaving the room?"
- Is the question asked negatively?--Negative questions sometimes confuse respondents, and in some instances, the negative word is overlooked. If you decide that you must state the question negatively, call attention to the negative word by underlining it.
- Is the question loaded, encouraging one answer or discouraging another?--Your questions need to be neutral in order to get an accurate reading from the respondents.[5]

The second part of pilot testing--asking a small group of people to actually respond to the instrument--should come after you have had someone carefully examine and check your questions against the preceeding criteria. You need to select several people who are a subset of your total sample population and who are willing to respond to your instrument. When you set up the pilot test, try to duplicate the setting and conditions that all the respondents will experience during the actual use of the instrument for information-gathering purposes. Use the same type of printing, cover letters, time lines, and so on. Ask your pilot testers to respond as if they were in the actual sample group.

After you have received their responses, examine the instruments. From their responses, can you identify any questions that appear to have been misunderstood? After you have carefully examined their responses, it is ideal if you can meet, either individually or in a group, with these people to get their reactions. Listen carefully to any and all of their suggestions for improving your questionnaire or interview schedule, and make any necessary final adjustments.

Increasing Your Response Rate

When you use a questionnaire or an interview to collect information, you want that information to be representative of a group of people. If you do not get enough completed instruments, you will have trouble generalizing to your group. There are many techniques that you can use to increase your response rate. Many of these focus on the questionnaire, but the interview schedule can also benefit. It is assumed that, if you get to the point of talking to your interviewee, you will get a response. The questionnaire must contain more incentives for the respondent if he/she is to follow through on your request for information. Some of the following techniques will be appropriate for your specific study and some will not. Pick and choose those that will most help your cause.

---

5. Henerson, Morris, Fitz-Gibbon, How to Measure Attitudes, p. 79-80.

First, consider how you want to approach your audience. Will respondents respond best to a casual approach (Hi, Jane), or will they be more comfortable with a more formal approach (Dear Dr. Jones)? Are you offering anonymity to your subjects? If you approach them with a cover letter that is highly personalized, but offer to keep their responses confidential, they may not be certain about responding--after all, you did use their first names.

If you promise anonymity, deliver anonymity. Don't use code numbers or color coding to later identify and report data using the names of persons or institutions. Be honest with your sample group. If you need to use code numbers on the questionnaires to identify which respondents have returned their questionnaires and which respondents need to be contacted again and encouraged to respond, explain to respondents that this is the only reason for coding the instruments. If you do offer total anonymity, the only way you can conduct any follow-up mailings is to do a mass mailing to all of your initial subjects. That can be an expensive proposition and can be annoying to early respondents.

One technique that has proven especially helpful to increasing response rates is to make a presurvey contact. In the case of a mailed questionnaire, you can send each member of the sample group a letter stating that you are going to be doing a study and would like his/her participation. The letter can explain the purpose of the study and tell the respondent when to expect to receive a copy of the questionnaire. Some researchers contact the secretary of the person who will receive the questionnaire and ask him/her to please be sure the instrument is completed and returned on time. In the case of an interview, one of the best ways to get subjects to cooperate is to phone them first, explain the study, ask for their participation, and set an appointment time for the actual interview. You may even want to offer respondents a copy of the final results of your study as an incentive. (If you decide to do this, make sure your printing and postage budgets are large enough to handle the extra expense.)

When your study is sponsored by some person or organization, be sure to include notice of that sponsorship in any cover letters or in a separate letter written on that organization's letterhead stationary and signed by an appropriate official. You can also use logos of endorsing groups on your instruments or use their names in your initial telephone contacts with respondents. People feel more comfortable about sharing information with a person who is associated with a known group or organization than they do about sharing with an unknown individual.

Mailing techniques are also important. Response rates to questionnaires tend to increase when the person doing the study takes some extra care. People will generally pay more attention to a hand-addressed envelope with a first-class stamp. Using computer labels and postage meter stamps may make the mailing more efficient for you, but the recipient of your instrument may feel as if he/she is involved in a cattle call and be less motivated to fill out and return the instrument.

If you have sufficient money in your budget, it is highly recommended that you include a preaddressed, stamped envelope for the respondent to use

in returning the instrument. Or you could design a questionnaire that can be folded so that it makes it's own mailer.

If you want the respondent to give you information that is directly related to his/her work, you should contact the respondent at work. In other words, questionnaires should be mailed to the work address; the respondent should be phoned and interviewed at work. If the information you are seeking pertains to more individual or personal topics, you should contact the respondent at home.

The follow-up techniques that you use can also play a large part in increasing your response rate. When you were doing your planning, you should have decided what follow-up method you would use. There are several potential approaches, as follows:

- Multiple telephone calls to nonresponders, asking them to please return your instrument
- Second and third mailings to nonresponders, including another copy of the questionnaire (If you are guaranteeing anonymity, you must mail second questionnaires to all respondents.)
- Follow-up postcards sent at certain intervals after the mailing of the questionnaire
- Follow-up letters sent at certain intervals after the mailing of the questionnaire (Your choice between this and postcards depends upon the formality of your instrument and the type of people you are asking to respond.)

Berdie and Anderson provide a good list of factors that will likely affect the response rate of your instrument:

- How will you relate to the people you ask to complete a questionnaire? Will you be formal or folksy?
- Are you able to guarantee respondents confidentiality?
- Have you obtained impressive sponsorship?
- Have you considered using different types of printing and paper, and different colors of paper and ink?
- Have you carefully considered the content and approach of your pre-letter and cover letter?
- Would some type of incentive encourage response to your questionnaire?
- Have you identified sufficient resources from which to obtain updated addresses for the people in your study?
- Will you use metered postage or regular postage stamps? Have you considered certified mail, special delivery, and air mail?
- Will you send the questionnaire to the respondent's place of work or to his/her home?

- How will you know why people are not returning completed questionnaires? (Without this knowledge, you will be unable to overcome their resistance.)
- Have you a follow-up "arsenal" available for use if several follow-ups are needed?
- Have you considered using the following for follow-ups: telephone calls, telegrams, postcards, formal letters, and informal letters?
- Will your follow-ups be humorous, serious, or a combination of both?[6]

Choosing a Sample

In most cases, it is not possible or desirable to contact everyone having information about the questions for which you need to have answers. There are people who are unavailable and others who are unwilling to participate. You must identify a group of people who are representative of the total group you want to generalize your results to. For example, if you want to generalize your findings to all the employers of your graduates for the last five years, you must identify a subset of those employers--one that will give you the same or very similar information that you would have gotten had you asked the entire group.

There are several sophisticated methods for choosing a representative sample. Described here is a simple technique that should help you in your early efforts at conducting a survey. If you are interested in more sophisticated methods, there are several texts available that are concerned with research design and methodology.

Step One

You must decide on a sample size. Generally, the larger the sample size, the more accurately you can generalize to the entire group you are studying. A general rule of thumb is to make your sample as large as you can handle, in the amount of time you have available, with the amount of money you have to spend.

If you need a guide to help you determine the minimum number of people necessary to provide a representative sample, use a table such as the one presented in sample 10. To use this table, simply identify the size of the whole group (population) that the sample is to represent and find that figure in the N column. Then note the corresponding figure in the s column. The s figure tells you how large your sample size needs to be. For example, if your total

---

6. Douglas R. Berdie and John F. Anderson, Questionnaires: Design and Use (Metuchen, NJ: Scarecrow Press, 1974), pp. 70-71. © 1974 by Douglas R. Berdie and John F. Anderson. Reprinted by permission of the authors.

SAMPLE 10

TABLE FOR DETERMINING SAMPLE SIZE FROM A GIVEN POPULATION

N	s	N	s	N	s
10	10	220	140	1200	291
15	14	230	144	1300	297
20	19	240	148	1400	302
25	24	250	152	1500	306
30	28	260	155	1600	310
35	32	270	159	1700	313
40	36	280	162	1800	317
45	40	290	165	1900	320
50	44	300	169	2000	322
55	48	320	175	2200	327
60	52	340	181	2400	331
65	56	360	186	2600	335
70	59	380	191	2800	338
75	63	400	196	3000	341
80	66	420	201	3500	346
85	70	440	205	4000	351
90	73	460	210	4500	354
95	76	480	214	5000	357
100	80	500	217	6000	361
110	86	550	228	7000	364
120	92	600	234	8000	367
130	97	650	242	9000	368
140	103	700	248	10000	370
150	106	750	254	15000	375
160	113	800	260	20000	377
170	118	850	265	30000	379
180	123	900	269	40000	380
190	127	950	274	50000	381
200	133	1000	278	75000	382
210	136	1100	285	100000	384

NOTE: N = population size; s = sample size

SOURCE: R. V. Krijcie and D. W. Morgan, "Determining Sample Size for Research Activities," Educational and Psychological Measurement. 30 (March 1970): 607-610.

population were 220 (N = 220), your sample should be 140 (s = 140). If you can afford to increase the size of the sample, fine. Use the table as a guide to minimums.

If your population has more than one distinct group (e.g., men and women) and you need to differentiate between them, then you need to select a random sample for each of the subgroups. This is called stratified random sampling.

Step Two

Next, you need to make a list of all the persons in the available population. The persons' names can be listed in any order, but alphabetical order is easiest to handle. Then, divide the total number of people in your population by the number of people you have decided to include in your sample (e.g., 220 ÷ 140 = 1.57). Round this figure off to the next whole number (e.g., 1.57 rounds to 2). Using that whole number as a guide, count down the list you made and circle selected names. For instance, if your number is 2, circle every second name on the list.

Make a list of the circled names. These people constitute your sample population. If you are doing a stratified random sample, repeat Steps 1 and 2 for each subgroup. Remember, you want your sample to be random and representative of your population.

Conducting the Survey

You now have an instrument that asks for all the information you need. The instrument has been pilot tested and revised, and you have selected the people who will respond to your inquiry. Now is the time to implement all your carefully developed plans. Use the timeline you developed during planning to guide each activity. Try to adhere as closely as possible to all procedures followed during your pilot test in order to avoid any unforeseen problems.

As the responses begin coming in, it is essential that you keep careful records of when each response was received. Those in charge of gathering responses should also keep a log of any unpredicted or unusual happenings during the response period. This information may be useful in follow-up and/or data analysis activities.

Analyzing and Reporting the Data

Descriptions of complex analysis procedures, particularly those that involve computer programming go beyond the scope of this module. However, a few comments need to be made about analysis. First of all, if you are going to do any analysis beyond a simple tallying of the results and reporting of means, medians, or percentages of responses, you should involve a person in your planning process who has expertise in the area of data analysis. This

person can help you design items that will elicit responses that will not need elaborate interpretation by the person who will eventually process the data.

You should allow a generous budget for any computer analysis, since the key punching and computer time are usually expensive. If you are not using a prepackaged computer program, there may also be some time needed to "debug" or reorganize the program so that your data can be correctly analyzed.

You also need to know, from the very start of your efforts, what kinds of results you are looking for and what type of analysis is best for your instrument. If you are in an institution that offers courses in computer programming or computer use, the instructor in that area may prove to be a great asset. Be sure to involve him/her in the development stages. Even if that person does not feel comfortable in designing your data analysis, he/she can help you locate and choose a person who is available and competent.

There are several ways of displaying your data.[7] Consider using a pie graph or a simple bar graph if you are dealing with percentages. You may also consider reporting the responses for each question, showing the question, the number of responses, and the percentage of response by audience.

When deciding how to report your findings, you must consider your audience. Will you be presenting your findings to your governing board, a group of parents, or a group of students? Your audience, at least to some extent, will determine what information you want to present and in what depth. In most cases, you should be prepared to report your results in both an oral and written form. The following outline can be used for both and contains all the essential elements of a good report:

I. Review of the goals or purposes of your survey

II. Review of the methods used in conducting the survey

III. Review of how the questions were formulated

IV. Review of the following:

- A. The coverage
- B. Representativeness of the responses
- C. Data results--percentages, means or medians, graphs, categories of response, summary statements

V. Review or initial impressions of trends in the information: high response areas, apparent priorities[8]

---

7. For information on data display methods, you may wish to refer to Module A-3, Report the Findings of a Community Survey, part of the Professional Teacher Education Module Series produced by the National Center for Research in Vocational Education (Athens, GA: American Association for Vocational Instructional Materials, 1978).

8. Garman and Hunter, Community Surveys: Grassroots Approaches, p. 20.

If you are planning to present your report in an oral form to a group such as your board, you need to include time for a question-and-answer period. Be sure you understand all of the data analysis in the report before you attempt to answer questions.

The process used for planning, developing, and administering questionnaires and interview schedules is an involved one, but the steps are clearly defined. With some practice you should be able to master each of the steps involved in producing the instrument. Once you have mastered the basic principles and techniques, you will be able to apply them to many situations in which you need to gather information to improve your vocational education program.

In order to become more familiar with questionnaires and interview schedules--how to plan them, how to format them, how to write clear and concise items--you may wish to complete one or more of the following activities:

- Obtain several questionnaires or interview schedules and examine them to determine the types of questions asked, format used, and summarizing methods used to report the findings. Your resource person should be contacted if you need help in locating instruments to examine.

  As you look at each of the instruments, you may wish to evaluate the items against a list of criteria, such as the one given on pp. 37-38, to help you evaluate their quality.

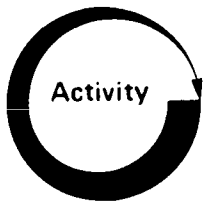
- Arrange to meet with an administrator or other person who has experience in designing and administering questionnaires or interview schedules. One good place to locate such a person would be at a local college or university. To prepare for the meeting, you will need to draft a list of key questions concerning such things as how to select a sample, techniques to use for question development, preferred format to follow, and how to increase response rates.

- Read one or more books specifically focused on questionnaire or survey development. The following are two excellent sources:

  Berdie and Anderson, Questionaires: Design and Use

  Dillman, Mail and Telephone Surveys; The Total Design Method

- Practice writing interview schedule or questionnaire items. Chapter Three in Mail and Telephone Surveys; The Total Design Method provides excellent detailed guidelines for this task, or you can use the criteria on pp. 37-38 of this module to guide you.



The following "Case Study" describes how one vocational administrator gathered the information needed to improve the vocational program. The process he followed and the questionnaire and cover letter he used are provided. Read and review the information and materials carefully, and critique in writing the process used and the letter and questionnaire developed.

CASE STUDY

Larry Robinson is the vocational director at Southwest Technical College. He has been asked by the dean of instruction to provide information about community businesses and their willingness to enter into a cooperative vocational education program with Southwest. Mr. Robinson was somewhat overwhelmed by his task, since he had never done any survey work.

He had only six weeks to gather the information, and in order to survey a cross section of the community, at least 300 employers would have to be contacted. The budget for the survey would have to come from the vocational department's general funds, so there would not be a lot to spend on gathering information. With these things in mind, Mr. Robinson decided to construct a questionnaire and to mail copies to all the employers listed in the Yellow Pages that might employ graduates of Southwest's programs. He figured that if he got 50 responses, he would have a good idea of how the community felt about cooperative education.

After some initial floundering with the questionnaire, Mr. Robinson decided that the best thing to do was to jump in and write down some questions that ought to be asked. Mr. Robinson had some experience with employers and knew that the questions should be fairly straightforward and that the survey should not be too long. Mr. Robinson's completed questionnaire and cover letter are shown on pp. 48-51.

The student assistant assigned to the vocational office then typed up the questions that Mr. Robinson had written and ran them off on the mimeograph machine after school. The students in Mr. Robinson's third-period welding class stuffed and addressed the envelopes, which were then taken to the office and run through the postage meter before they were taken to the post office.

When the completed questionnaires began to arrive, Mr. Robinson started tallying the responses. He wasn't quite sure how best to present and analyze the information that he received, but he decided to check with the instructor in computer science and see if she had some ideas that might help him organize the data for presentation to the dean of instruction.

April 15, 1982

Dear Participant:

Southwest Technical College is considering the implementation of a cooperative education program. For cooperative education to be successful, the community must take part in the vocational instruction of students by providing work placements and on-the-job supervision.

Before we make any decisions about whether a cooperative education program is feasible for our community, we need some information from you. Enclosed is a short questionaire that asks for some information about your business or agency. The instrument should not take long to complet.

Please send the completed instrument to me in the enclosed return envelope as soon as possible. If you have any questions or concerns about the questionaire, please feel free to call me at 782-6295. Thank you for your cooperation.

Sincerely,

Larry Robinson
Vocational Director
Southwest Technical College

Enclosure

QUESTIONNAIRE FOR AGENCIES AND BUSINESS ESTABLISHMENTS

PART A: Personal Data

1. Name: Address:

2. Position:

3. Agency or Business: Phone:

PART B: General Information About the Agency or Business

4. Type of business: _____

5. Do you feel there is a shortage of trained workers in your business?
   Yes ___ No ___

6. Number of employees: _____

	Total (Present Employees)	Replacement (Number Needed)	Expanding (Number Needed)	Contracting (Numbers)	No Change	Total Expected in 2 Years
Type of Employment						
Full-time paid						
Part-time paid						
Full-time volunteer						
Part-time volunteer						
Levels of Employment						
Helper						
Assistant						
Midmanager						
Manager						
Supervisor						

Which level is most dificult to fill? _____

Which level is least difficult to fill? _____

7. What is the most important source you use to find persons to fill jobs?

___ Campus placement bureau or department
___ Employment agencies (public)
___ Employment agencies (private)
___ Advertisements
___ Direct contact by employer
___ Direct contact by employee
___ Public contacts
___ Advisory committee
___ Other

PART C: Interest in Cooperating and Participating in an Occupational Program

8. Would you be interested in working with the area vocational-technical center or the junior college in developing a training program in an occupational area? Yes ___ No ___ In what capacity? Advising ___ Consulting ___ Assisting in skills development ___ Other (list) ___

_____

9. Would you hire persons who have completed the semiprofessional program if there were openings at the levels of work needed? Yes ___ No ___ Uncertain ___ Explain _____

10. Would you be interested in having presently employed workers obtain further training in preparation for new or advanced positions if a junior college or area center were to make this training available? Yes ___ No ___ Uncertain ___ Explain _____

11. Would you cooperate by permitting trainees to observe and receive work experience at your establishment? Yes ___ No ___ Uncertain ___ Explain

_____

PART D: Preferable Type of Program for Postsecondary School Training

12. Which of the following types of programs, A or B, is preferable as preparation for a career employment in your organization?

___ Program A: A postsecondary school training period that is 100 percent vocational-technical
___ Program B: A postsecondary training period that is primarily vocational-technical, but includes courses in general education

13. If a postsecondary school training peroid included courses in general education, which would you estimate to be the most desirable percentage of courses in general education for training?

___ 15% ___ 25% ___ 35% ___ 45%

14. Which of the following distributions of the training time in the program is preferable to spend in the vocational-technical training?

	Distribution				
	A	B	C	D	E
Percentage of time spent on theory and development of background knowledge	25%	40%	50%	60%	75%
Percentage of time spent on development of technical skills and knowledge for the job	75%	60%	50%	40%	25%

15. Which of the following types of programs, A or B, is preferable as preparation for a career-employee in your organization?

___ Program A: Background knowledge and understanding of one area with intensive training in one aspect only of this knowledge
___ Program B: Background knowledge and understanding of an area with training in several aspects, hence less intensive training in any one application

16. Which of the qualities below do you desire <u>most</u> in an employee?

___ Positive attitudes toward work
___ Positive relationships with people
___ Knowledge and skills for the job

NOTES

Compare your completed written critique with the "Model Critique" given below. Your responses need not exactly duplicate the model response; however, you should have covered the same major points.

MODEL CRITIQUE

Although Mr. Robinson had good intentions about his information-gathering activities, there were several things he could have done that would have greatly improved his questionnaire. Since he was gathering the information at the request of another person, it would have been a good idea to ask for a planning meeting. Not only would this have been a way to have the objectives and time line clarified, it would also have been a way to involve several other people in generating ideas and potential questions.

Much of the information about time lines and budgets is hazy. It's possible that Mr. Robinson had a good handle on how much time and money were available for this questionnaire, but he did not prepare a detailed written plan or budget so we can't be certain whether or not he has planned all steps and considered all costs.

In selecting a survey technique, Mr. Robinson considered his own experience and knowledge, combined that with the available time and money, and decided to use a questionnaire rather than other techniques. He might have had a better instrument if he had first developed a clear set of objectives and had developed the questions based on those objectives.

The questions themselves are not bad, although Questions 13 and 14 are awkwardly worded and confusing. The items are logically sequenced, and most items are easy to understand. Mr. Robinson should, however, have added some instructions to make responding easier. The length of the questionnaire is good, and it is very helpful that he was able to include return envelopes. This should increase his response rate.

We know that his budget was tight, but at a college it would seem that he might have been able to use a photocopier or an in-house printing shop as a reasonable alternative to mimeographing the questionnaire. Use of real stamps might also have helped his response rate and would not have greatly increased the total cost.

The cover letter is to the point and states the general objective of the survey. Mr. Robinson included his phone number so that respondents could call if they wanted to ask questions. This is a good idea. Letterhead stationary from the college should have been used, however. This would have assured the respondents that Mr. Robinson really did represent who he said he did, as well as adding a professional appearance to the letter. Both the letter and the questionnaire contain spelling and typographical errors (e.g., questionaire, complet, dificult) that should have been caught and corrected.

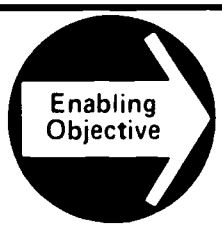
Mr. Robinson decided to check with the computer science instructor and ask her advice about how best to analyze and present the data he began to receive. This was a great idea, but he would have been better off seeking her advice while the questionnaire was still being constructed so that the format could make data processing easier. As it is, some items (e.g., 8-11) ask for the responses to be marked within the items, rather than out to the margin where they could be more easily noted and tallied accurately.

In general, this effort to gather information was not a strong one. If Mr. Robinson had followed the steps presented in his Competency-Based Administrator Module from last summer's class, he would have gotten better results and made a more satisfactory response to his dean's request.

Level of Performance: Your completed written critique should have covered the same major points as the "Model Critique." If you missed some points or have questions about any additional points you made, review the material in the information sheet, "Using Questionnaires and Interview Schedules," pp. 9-45, or check with your resource person if necessary.

Learning Experience II

OVERVIEW



After completing the required reading, use a small-group technique to gather information concerning a given problem situation.

You will be reading the information sheet, "Small-Group Techniques," pp. 57-66.

You will be using a small-group technique to gather information concerning one of the "Problem Situations," pp. 67-68, and audiotaping this small-group activity. If peers are unavailable to you, you will be using force field analysis to gather information, since this technique can be used individually.

You will be evaluating your competency in using a small-group technique to gather information, using the "Small-Group Technique Checklist," pp. 69-70.

NOTES

Activity

For information about small-group techniques, their uses and process steps, read the following information sheet.

SMALL-GROUP TECHNIQUES

Making decisions in a group setting has several advantages. You are able to draw upon the experiences and knowledge of each participant. Participants also come away with a feeling of worth because they know that they have significantly contributed to the decisions that must be made within an organization. Making decisions in a group setting is one way of gathering information and shaping it into a vehicle for change. This information sheet deals with three small-group techniques that can be used for inquiry--for gathering information to help make better-informed decisions.

The first technique described is the nominal group technique. This is a technique for generating ideas that occur in a structured group setting. The second technique is called brainstorming. This is a less formal technique than the nominal group technique, and one that works given a shorter period of time for idea generation. The third technique is called force field analysis. Force field analysis is a technique used to identify the positive and negative implications of any given decision. This technique can be used individually as well as with a group.

Group Behavior

One of your jobs as group leader is to help encourage productive group behavior. There are some situations that may be difficult to handle. Some of the more common problems include the following: (1) everyone wants to talk at once, (2) no one wants to talk, (3) a single person tries to monopolize conversation, and (4) participants with opposing views may become angry with one another.

When everyone wants to talk at once, you may be threatened with general chaos. This is usually a sign of high interest and may be controlled; the leader can simply hold up a restraining hand, point to the next speaker, or nod to acknowledge a speaker. The group may even need to be reminded of the purpose of the activity to focus their behavior.

Your job as group leader may require you to start conversation in a quiet group. Usually you can get things started by asking a provocative question or two. In your planning stage, you may want to identify some questions or comments to be used for this purpose.

When a single participant monopolizes the floor, a reminder from you about equal opportunity to speak is in order. In a difficult case, you may need to deliberately fail to recognize the offender to stifle the behavior.

If two participants become so involved in the activity that they become angry, it is your job to defuse the situation. You must be very tactful in this case--perhaps diverting the topic to a neutral point, ignoring the combatants, or reminding the group of the purpose of the activity. As a last resort, you can be arbitrary and silence the speakers.

Each of the following techniques is presented in a similar format so that you will be able to replicate the techniques successfully and so that you have a basis for comparing the techniques. You should study each technique carefully and try to identify situations in which these techniques might prove helpful.

Nominal Group Technique

The nominal group technique is one that is generally limited to single-purpose, single-topic meetings. It will prove useful to you in a variety of situations, for example:

- Working with an advisory committee to identify potential funding sources for some new equipment that is not covered by your regular budget
- Setting priorities for the content of a new curriculum
- Seeking ways to integrate occupational exploration into existing vocational courses

Goals

The nominal group technique (NGT) is used to generate high-quality alternatives or ideas for use as solutions to a given problem.[9] The approach is highly structured and works well with an issue that is clearly defined. NGT has a prescribed sequence of problem-solving steps that must be followed. This technique was designed to minimize group pressure or value judgments that might inhibit the productive and creative generation of ideas. The person or persons initiating this technique serve as the leaders since they have the most knowledge about the problem and the technique.

Group Size

NGT works best with groups that have at least five members and not more than nine. The designers of this technique recommend this group size for several reasons. First of all, groups that have less than five members usually

---

9. Information in this section has been summarized from Andre L. Delbecq, Andrew H. Van de Ven, and David H. Gustafson, Group Techniques for Program Planning: A Guide to Nominal Group and Delphi Processes (Dallas, TX: Scott, Foresman and Company, 1975).

lack the resources necessary to generate adequate and accurate problem solutions. Second, interaction studies indicate that groups that range from five to seven members have the most success at staying on task and functioning as a group.

The designers of this technique also state that the mechanics of NGT become burdensome with a larger group. The listing of ideas and the discussion take too long. Also, participants are usually less satisfied with the group interactions because, as the number of members increases, the amount of individual participation decreases. NGT can be successfully used by a larger group if it is subdivided into smaller groups of five to nine members. The process steps are the same, except a step is inserted for the combining of small-group results.

Time Required

NGT can be used in time blocks of from two hours to a day in length. The amount of time required varies with the number of participants and the complexity of the problem being addressed. The group leader will also need to plan time for completing preliminary steps such as selecting and preparing the meeting room, providing the supplies needed, and presenting the opening statement.

Process Steps

Step 1. The first step is the silent generation of ideas in writing. This step involves the following activities:

- Present the nominal question to the group in writing
- Read the question orally
- Illustrate the level of abstraction and scope desired
- Avoid other requests for clarification
- Ask group members to write ideas in brief phrases or statements
- Ask group members to work silently and independently
- Model good group behavior
- Discourage disruption of the silent, independent activity by comments addressed to the group as a whole

Step 2. The second step is the round-robin recording of ideas. This step involves providing clear instructions to the group about the following activities that they will be completing:

- Explain the objective of the step: to map the group's thinking
- Explain need to present ideas in brief words or phrases
- Explain process of taking one idea, in turn, from each member

- Explain that group members must decide if items are duplicates
- Explain that an individual may "pass" when he/she has no further items, but may reenter later
- Express the desirability of "hitchhiking" on ideas and adding new ideas even if they are not on the work sheets completed individually in Step 1
- Explain inappropriateness of engaging in discussion prior to the completion of the listing

In recording the ideas generated, it is desirable to use a quick, effective mechanical recording process, for example:

- Record ideas as rapidly as possible
- Record ideas in the words used by group members
- Provide assistance in abbreviating ideas only in special situations
- Make the entire list visible to the total group

The group should be admonished as a whole if individuals engage in side conversations.

Step 3. The third step is serial discussion for clarification. This step involves the following activities:

- Orally define the purpose of the step: (1) to clarify the meaning of items and (2) to explain reasons for agreement or disagreement
- Indicate that final judgments will be expressed by voting
- Pace the group so that all ideas receive sufficient time for clarification
- Avoid forcing the member who originally listed the idea to be solely responsible for clarifying the item

Step 4. The fourth step is the preliminary vote on item importance. This step involves asking the group to select, from the entire list, a specific number of important or priority items. This would include the following activities:

- Have each group member select and write five priority items on separate 3" x 5" cards
- Have each group member individually rank-order or rate the priority items
- Collect the cards and shuffle them to retain anonymity
- Tally the vote and record the results in front of the group

Step 5. The fifth step is the discussion of the preliminary vote. This step involves the following activities:

- Define the role of the step as one of clarification, not pressure toward an artificial consensus
- Keep the discussion brief
- Caution group members to think carefully about any changes they make in their voting

Step 6. The sixth step is the final vote, which is similar to Step 4. If you are using more than one group to generate items, there should be a variation in the above outlined steps. Each small group should work through the steps as outlined until they have completed the preliminary vote. At that time, the participants should take a break, and the recorders of each group should meet to combine the lists of priority items. The master list can then be put on a transparency or written on a flip chart. When the groups reassemble into a single large group, the large group should conduct a serial discussion of the master list for the sake of clarification and discussion of the preliminary vote. A final vote can then be taken.

Brainstorming

Brainstorming is a technique used to stimulate thinking and promote the involvement of participants in discussions. It takes less time than the nominal group technique. Brainstorming might be used to initiate discussions about topics such as the following:

- How to recruit more males for courses that have traditionally attracted only female students
- How to spend an unexpected $200 gift in the agriculture department
- How to gain more community involvement in the planning and evaluation of curriculum

Goals

Brainstorming is a technique used to stimulate creativity and promote involvement of members of a group. It is often used as a planning or preplanning activity, but it can also be used as a simple problem-solving technique. The brainstorming session should be guided by a leader, either self- or group-appointed.

Group Size

Brainstorming is most effective when the group is not too large. Generally, a group containing a maximum of 12 people is large enough to generate

many ideas and yet small enough to be a working group in which all members are able to actively participate.

Time Required

Generally, 15-20 minutes is sufficient time to conduct a brainstorming session. The time may vary depending upon the difficulty of the subject, the number of individuals in the group, and the enthusiasm of group members. Some time should be spent before the session to clarify why the brainstorming session is being conducted and what specific issue is being dealt with.

Process Steps

Step 1. The first step is choosing the topic or concern. You should identify your topic or concern and state it in specific terms. This will help keep participants' ideas or suggestions from covering too broad an area. In addition, you should be sure that the topic can be easily understood by participants and that they will have the ability and interest to deal with it effectively. Whatever topic is chosen, it should be carefully described before the session begins.

Step 2. The second step is choosing the leader and recorder. The brainstorming session should be guided by a leader. This person may be you or another group member. The leader has the responsibility for monitoring the actual brainstorming session. The leader should stay in the background as much as possible but should interject ideas to stimulate thinking and keep the responses coming. He/she must take care that negative or evaluative phrases are kept to a minimum. If you are not the leader, you should make certain that the person chosen as leader encourages a spontaneous flow of suggestions and discourages the making of value judgments about any idea put forth.

A recorder--who can be selected by you or by the participants--is also needed. He/she has an important and active role in keeping a written record of all suggestions made during the brainstorming session. The suggestions are usually recorded on a chalkboard or flip chart so that all can see them and so that memory won't have to be relied on when the evaluation process begins at a later time.

Step 3. The third step is orienting participants. It is the leader's responsibility to help participants understand that evaluation and criticism are not allowed during brainstorming. The assessment of ideas is done at a later time. All ideas related to the topic should be welcomed. Having a variety of alternative suggestions will help to generate more effective plans of action. Because a quantity of varied suggestions is desired, participants should be asked to give spontaneous responses without weighing their value at that time.

The leader should explain the purpose of brainstorming and how a typical session operates. Perhaps the leader could put participants through a "dry

run" so they can get the feel of how brainstorming works. Adequate orientation of participants to the process can help ensure that the session does not get out of hand. If, during the session, all the ideas seem to be coming from a few participants, an expectant or encouraging glance at the quieter people may be enough to get them talking.

Step 4. The fourth step is generating ideas. The leader should try to get the group to be spontaneous and to generate ideas quickly. The recorder must be on his/her toes in order to keep up with the ideas. Make sure that all ideas are recorded fully. The quick pace can be difficult for the recorder.

Step 5. The fifth step is closing the session. A closing time should have been arranged before the brainstorming session was begun. At the closing of the session, the leader should ask the recorder to report orally on the suggestions. A written report should also be submitted at a later time.

Step 6. The sixth step is conducting a follow-up. The ideas generated in a brainstorming session are just that, a list of ideas. You, as the administrator, need to plan for a way to use those ideas. To allow participants to evaluate the ideas generated, it is helpful to hold a session for this purpose after the brainstorming results have been summarized. Brainstorming is best used for idea generation; it should not be viewed as an end, but rather a beginning--a way to stimulate participation and generate a range of ideas and solutions.

Force Field Analysis

Force field analysis is a technique that is designed to help you identify the positive and negative forces that may influence actions or decisions. This technique is best used by a small group and is effectively used as a planning device as well as an evaluation technique. Some possible situations in which force field analysis might be used are as follows:

- Deciding the pros and cons of reorganizing the structure of the vocational programs so that there are no department chairpersons
- Determining the factors influencing a decision to hold night classes in the welding laboratory
- Choosing a new textbook for the textile science course

Goals

During any planning activity, you need to look at as many of the factors that influence actions and decisions as possible. Force field analysis is a way of identifying those forces in writing. When you are conducting a formative or summative evaluation of activities that have already taken place, it

can be helpful to identify the forces that influenced your actions. Force field analysis can be used to look back at what happened, as well as to look forward to what might happen.

Group Size

Force field analysis can be done alone, but used as a small-group technique, it works best with a group of three to five people. The people should feel comfortable with one another and not be overly concerned with group relationships. This should be a group that is very task oriented. The members of the group should be individuals who have a range of experiences with the organization and who understand the general nature of the issue being discussed.

Time Required

The time required for a force field analysis varies greatly, depending upon the complexity of the issues involved. If you are dealing with a simple decision, such as which of three models of a drill press to purchase, the analysis can probably be conducted in an hour or less if you have all the necessary information available. If you are working with an issue that may require a major structural change in the organization of your institution, you may want to schedule several work sessions over a period of days or weeks to deal with the analysis.

Process Steps

Step 1. The first step is setting up the working space. You will need several large sheets of paper for making lists. You may use either flip charts or sheets of paper taped to the walls. Also, be sure that there are several markers for writing. Each of the sheets should have one of the following headings:

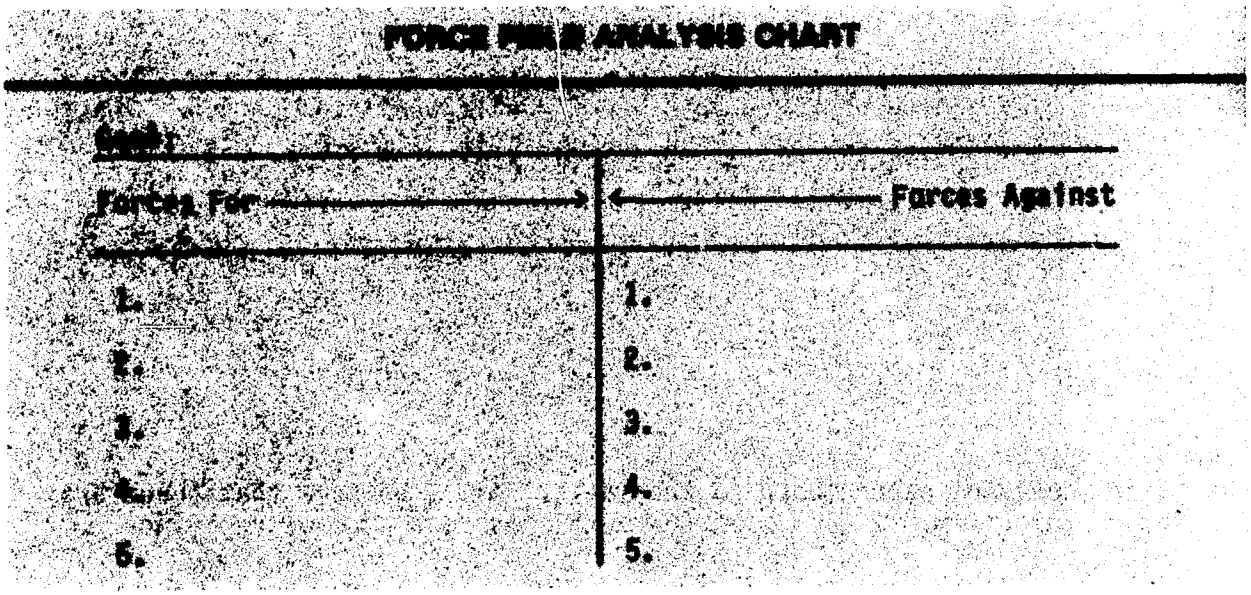
- Driving forces
- Restraining forces
- Influentials
- Innovators
- Opinion leaders
- Resisters

Step 2. The second step is orienting participants to the purpose of the work session. The issues to be examined should be explicitly stated, preferably in written form. If any clarification of issues is needed, this is the best time to do so. Make sure participants know why they are involved in the force field analysis procedure and what the expected products are.

Step 3. The third step is generating items for the lists, which can be accomplished by using the techniques described in the brainstorming section of this information sheet (or "brainstorming" by yourself if you are working individually).

You will probably be asked to clarify what each of the list headings represents. One of the best ways to clarify this is to explain to the participants that any social system may be considered to be a constantly changing set of forces working in opposite directions. One set of forces (driving forces) moves the system in the desired direction--such as that in an educational program improvement effort. Another set (restraining forces) prevents the system from moving in that direction. It may help to use a force field analysis chart similar to the one in sample 11.

SAMPLE 11



Movement toward a desired state of affairs may be aided by (1) increasing the number and strength of the driving forces and (2) decreasing the number and strength of the restraining forces. Identification of these forces is important for the development of an effective plan. Forces for change include such things as legislation, state or federal funds, and pressure from community groups. Forces that may restrain projects might be lack of funds or resistance from community groups.

In addition to identifying driving and restraining forces, it may be helpful to identify three groups of individuals--influentials, innovators, and opinion leaders--who may act as driving forces if their support is secured. A fourth group, the resisters, usually acts as a restraining force that the administrator must attempt to neutralize.

Identification of influentials is important to force field analysis. Community influentials are persons who tend to control the wealth and power in the community and, therefore, to influence community decisions. Two means are useful for identifying these individuals: (1) the decision analysis technique and (2) the reputational technique.

In the decision analysis process, persons active in community affairs are asked to identify important recent community decisions. As much information as possible about how these decisions were made is then collected from newspaper articles, public records, observation of public meetings, and interviews. The identity of influentials may then be determined.

The reputational technique involves asking a group of persons who are active in the community to name persons whom they think have influence in community affairs and those who are wealthy and socially prominent. A second panel of knowledgeable persons then refines and limits this list to include the persons whom they view as the most influential in the community.

Identification of innovators is also useful in educational program improvement efforts. These individuals can be identified by certain characteristics. They usually are intelligent, read widely, and travel a lot. They tend to be risk takers who are on the fringes of the system, and they may be viewed as mavericks. They do not usually have much influence or power. They can, however, assist in program improvement by experimenting with new ideas that may then be accepted and promoted by opinion leaders.

Identification of opinion leaders is important because opinion leaders are much like influentials in that they have an impact on decisions. They exist in all groups and organizations. They tend to be outgoing, to know many people, and to talk a lot in groups. They are not usually innovators. Instead, they watch those who experiment with new ideas to see how the ideas work. They watch the reactions of the resisters as a way of obtaining a measure of acceptance for new ideas. They pass judgment on new ideas and promote those that work. They also act as "gatekeepers"--regulating a flow of information and resources to system members. They can play a useful part as referees or moderators in program improvement efforts.

Identification of resisters is critical because resisters can be a significant restraining force in a program improvement effort. These individuals are the defenders of the system as it is--the self-appointed guardians of existing standards. They play a useful part in the system because they provide stability. They tend to speak out in response to the activities of the innovators and to become disturbed when any systematic attempt to improve programs gets underway.

Each of these small-group techniques can improve your ability to generate ideas and improve group-decision-making skills. Each technique may be used with different groups for different purposes. After you have mastered each technique, you may wish to modify some of the steps to fit a new situation. Don't be afraid to be creative.

Given the techniques described in the previous information sheet (i.e., nominal group technique, brainstorming, or force field analysis), choose one technique that you would like to practice. Identify three to five peers who are willing to role-play staff members to help you with this activity. (If you are unable to find peers to participate in the role-playing activity, choose force field analysis as your technique, since this can be used individually.)

In a setting where you will not be disturbed, use the technique you have chosen to address one of the situations below. Any preparation activities should be recorded in a written log and the group activity should be audiotaped for future analysis.

There is no one right technique to use with each of the following situations. Encourage group members to improvise when they feel the situation does not provide enough information.

PROBLEM SITUATIONS

Problem Situation 1:

A welding firm in your community has contacted you and requested the use of your welding laboratory and equipment two evenings a week for the next two months. The firm is willing to pay an agreed-upon amount for the use of the facilities, but they will provide their own instructor for the course. The instructor they intend to use is a graduate of your program and will be teaching essentially the same content that you have been teaching in your adult education classes, which you have been charging tuition for. Examine the pros and cons of this decision.

Problem Situation 2:

You have misfigured your grocery budget for the semester. Consequently, your food service class still has three weeks left to meet, but you only have $25 left to use for supplies. You have spent most of the semester in food preparation activities, and not much time has been spent on the service aspect of your curriculum. What are some options for providing high-quality instruction for your class? Are there some imaginative ways that you could get the most out of the remaining $25?

Problem Situation 3:

You need new advisory council members. John Oswald is moving out of town, and Mary Newman has decided that she wants to spend more time with her new business. Your council has not been as representative of your community makeup as it might have been. How can you go about recruiting potential

council members who are truly representative of the diverse community that your school serves?

After you have planned and conducted your small-group activity or individual force field analysis and have prepared your log and/or audiotape, use the "Small-Group Technique Checklist," pp. 69-70, to evaluate your work. You may wish to ask one of the group participants or your resource person to assist you in this task.

Name _____

Date _____

SMALL-GROUP TECHNIQUE CHECKLIST

Directions: Place an X in the NO, PARTIAL, or FULL box to indicate that each of the following performance components was not accomplished, partially accomplished, or fully accomplished. If, because of special circumstances, a performance component was not applicable, or impossible to execute, place an X in the N/A box.

	LEVEL OF PERFORMANCE			
	N/A	No	Partial	Full
In using the nominal group technique, brainstorming, or force field analysis, you:				
1. identified and clarified the issue before the small group was convened or the analysis was initiated. . . .	☐	☐	☐	☐
2. gathered needed supplies ahead of time.	☐	☐	☐	☐
3. generated a wide range of alternatives.	☐	☐	☐	☐
4. compiled a summary of products and/or ideas generated .	☐	☐	☐	☐
In following the appropriate steps for the nominal group technique, you:				
5. had members silently generate ideas in writing.	☐	☐	☐	☐
6. recorded ideas using round-robin technique.	☐	☐	☐	☐
7. conducted a serial discussion for clarification	☐	☐	☐	☐
8. conducted a preliminary vote on item importance	☐	☐	☐	☐
9. led members in discussing the preliminary vote.	☐	☐	☐	☐
10. conducted a final vote.	☐	☐	☐	☐
In following the appropriate steps for the brainstorming technique, you:				
11. stated topic in specific terms.	☐	☐	☐	☐

		LEVEL OF PERFORMANCE			
		N/A	No	Partial	Full
12.	chose leader and recorder	☐	☐	☐	
13.	oriented participants	☐	☐	☐	
14.	helped participants generate ideas quickly.	☐	☐	☐	
15.	closed the session at a predesignated time.	☐	☐	☐	
16.	conducted a follow-up session	☐	☐	☐	
	In following the appropriate steps for the force field analysis, you:				
17.	set up a working space.	☐	☐	☐	
18.	stated explicitly the issues to be examined	☐	☐	☐	
19.	helped participants generate positive and negative forces	☐	☐	☐	
20.	helped participants identify influentials, innovators, and opinion leaders	☐	☐	☐	
21.	helped participants identify potential resistors. . . .	☐	☐	☐	
	In working with a small group to gather information, you:				
22.	clarified the issue with group participants	☐	☐	☐	
23.	thoroughly explained all process steps to participants.	☐	☐	☐	
24.	provided leadership that encouraged participation by all group members	☐	☐	☐	
25.	indicated to the group the next steps to be taken . . .	☐	☐	☐	

Level of Performance: All items must receive FULL or N/A responses. If any item receives a NO or PARTIAL response, review the material in the information sheet, "Small-Group Techniques," pp. 57-66, or check with your resource person if necessary.

Learning Experience III

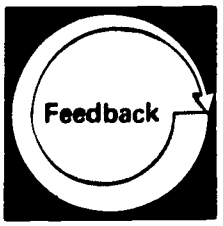
FINAL EXPERIENCE

While working in an actual administrative situation, use inquiry skills to help improve vocational education programs.

As part of your administrative responsibility, use inquiry skills to help improve a vocational education program. This will include--

- designing and administering a questionnaire or a structured interview
- using a small-group technique in the preparation or planning stages of the questionnaire or interview schedule

NOTE: As you complete each of the above activities, document your activities (in writing, on tape, through a log) for assessment purposes.



Arrange to have your resource person review your completed questionnaire or interview schedule and any other documentation of your activities. In addition, arrange to have your resource person observe at least one instance in which you are using a small-group technique in the preparation or planning stages of the questionnaire or interview schedule.

Your total competency will be assessed by your resource person, using the "Administrator Performance Assessment Form," pp. 73-76.

Based upon the criteria specified in this assessment instrument, your resource person will determine whether you are competent in using inquiry skills to help improve vocational education programs.

NOTES

Name _____

Date _____

ADMINISTRATOR PERFORMANCE ASSESSMENT FORM

Use Inquiry Skills to Help Improve Vocational Education Programs

Directions: Indicate the level of the administrator's accomplishment by placing an X in the appropriate box under the LEVEL OF PERFORMANCE heading. If, because of special circumstances, a performance component was not applicable, or impossible to execute, place an X in the N/A box.

	LEVEL OF PERFORMANCE					
	N/A	None	Poor	Fair	Good	Excellent
In preparing to use a questionnaire or structured interview, the administrator:						
1. determined what he/she wanted to know	☐	☐	☐	☐	☐	☐
2. determined how much time was available to gather information.	☐	☐	☐	☐	☐	☐
3. determined how much money was available	☐	☐	☐	☐	☐	☐
In designing a plan for the use of the questionnaire or structured interview, the administrator:						
4. decided who would direct the activities	☐	☐	☐	☐	☐	☐
5. identified individuals and groups who should be involved	☐	☐	☐	☐	☐	☐
6. determined the source of the instrument to be used.	☐	☐	☐	☐	☐	☐
7. formalized plans in a written format.	☐	☐	☐	☐	☐	☐
In developing a budget for the structured interview or questionnaire, the administrator:						
8. determined the maximum amount of money available	☐	☐	☐	☐	☐	☐

	LEVEL OF PERFORMANCE					
	N/A	None	Poor	Fair	Good	Excellent
9. made a cost estimate for each category based on the plan.	☐	☐	☐	☐	☐	☐
<u>In constructing a questionnaire or interview schedule, the administrator:</u>						
10. identified significant characteristics of the population.	☐	☐	☐	☐	☐	☐
11. researched the general topic of the questionnaire or interview.	☐	☐	☐	☐	☐	☐
12. clarified objective statements.	☐	☐	☐	☐	☐	☐
13. wrote questions that:						
a. were clear, concise, and to the point . . .	☐	☐	☐	☐	☐	☐
b. gathered information that was relevant to the objectives.	☐	☐	☐	☐	☐	☐
<u>In designing a format for the questionnaire or structured interview, the administrator:</u>						
14. arranged items in a logical and attractive manner.	☐	☐	☐	☐	☐	☐
15. considered data tabulation when determining placement of items.	☐	☐	☐	☐	☐	☐
16. used the highest quality of reproduction allowed within the budget	☐	☐	☐	☐	☐	☐
17. kept the instrument to a reasonable length. . .	☐	☐	☐	☐	☐	☐
18. wrote directions that were clear and easy to understand.	☐	☐	☐	☐	☐	☐
19. wrote a pre- or cover letter that clearly outlined:						
a. the purpose of the questionnaire or interview	☐	☐	☐	☐	☐	☐
b. what was required of respondents.	☐	☐	☐	☐	☐	☐

	LEVEL OF PERFORMANCE					
	N/A	None	Poor	Fair	Good	Excellent
In preparing for administration of the instrument, the administrator:						
20. conducted a pilot test of the instrument. . . .	☐	☐	☐	☐	☐	☐
21. made every effort to increase responses by:						
a. being honest with respondents about anonymity and data use.	☐	☐	☐	☐	☐	☐
b. using a presurvey contact	☐	☐	☐	☐	☐	☐
c. recruiting and using sponsors	☐	☐	☐	☐	☐	☐
d. using personalized mailing techniques . . .	☐	☐	☐	☐	☐	☐
e. using several follow-ups.	☐	☐	☐	☐	☐	☐
22. used a random sampling technique to obtain a representative sample of the population	☐	☐	☐	☐	☐	☐
In analyzing and reporting the information gathered by the questionnaire or structured interview, the administrator:						
23. planned analysis procedures before finalizing the instrument.	☐	☐	☐	☐	☐	☐
24. displayed data in a clear and understandable manner.	☐	☐	☐	☐	☐	☐
25. used a report format that included goals, methods, development, review of responses, and implications and recommendations.	☐	☐	☐	☐	☐	☐
In preparing to use a small-group inquiry technique, the administrator:						
26. identified and clarified the issue to be addressed before the group was convened	☐	☐	☐	☐	☐	☐
27. chose an appropriate technique for the situation and the issue	☐	☐	☐	☐	☐	☐

		LEVEL OF PERFORMANCE					
		N/A	None	Poor	Fair	Good	Excellent
In conducting the small-group inquiry technique, the administrator:							
28.	gathered needed supplies ahead of time.	☐	☐	☐	☐	☐	☐
29.	clarified the purpose of the activity with the group	☐	☐	☐	☐	☐	☐
30.	clarified the issue to be dealt with.	☐	☐	☐	☐	☐	☐
31.	explained all process steps to the group. . . .	☐	☐	☐	☐	☐	☐
32.	encouraged participation by all group members .	☐	☐	☐	☐	☐	☐
33.	followed all steps of the chosen technique. . .	☐	☐	☐	☐	☐	☐
34.	helped the group to generate a wide range of alternatives.	☐	☐	☐	☐	☐	☐
35.	summarized the ideas generated by the small group	☐	☐	☐	☐	☐	☐
36.	indicated the next steps to be taken and provided closure.	☐	☐	☐	☐	☐	☐

Level of Performance: All items must receive N/A, GOOD, or EXCELLENT responses. If any item receives a NONE, POOR, or FAIR response, the administrator and resource person should meet to determine what additional activities the administrator needs to complete in order to reach competency in the weak area(s).

Additional Recommended References

Delbecq, Andre L.; Van de Ven, Andrew H.; and Gustafson, David H. *Group Techniques for Program Planning: A Guide to Nominal Group and Delphi Processes.* Glenview, IL: Scott, Foresman and Company, 1975.

Morris, Lynn Lyons, et al. *Program Evaluation Kit.* Revised Edition. Beverly Hills, CA: Sage Publications, 1978.

Patton, Michael Quinn. *Qualitative Evaluation Methods.* Beverly Hills, CA: Sage Publications, 1980.

Competency-Based Administrator Education Materials

LEADERSHIP & TRAINING (LT) SERIES

Category A: Program Planning, Development, and Evaluation

- LT-A-1 Develop Local Plans for Vocational Education: Part I
- LT-A-2 Develop Local Plans for Vocational Education: Part II
- LT-A-3 Direct Program Evaluation

Category B: Instructional Management

- LT-B-1 Direct Curriculum Development
- LT-B-2 Guide the Development and Improvement of Instruction
- LT-B-3 Manage the Development of Master Schedules

Category C: Student Services

- LT-C-1 Manage Student Recruitment and Admissions
- LT-C-2 Provide Systematic Guidance Services
- LT-C-3 Maintain School Discipline
- LT-C-4 Establish a Student Placement Service and Coordinate Follow-up Studies

Category D: Personnel Management

- LT-D-1 Select School Personnel
- LT-D-2 Supervise Vocational Education Personnel
- LT-D-3 Evaluate Staff Performance
- LT-D-4 Manage School Personnel Affairs

Category E: Professional and Staff Development

- LT-E-1 Appraise the Personnel Development Needs of Vocational Teachers
- LT-E-2 Provide a Staff Development Program
- LT-E-3 Plan for Your Professional Development

Category F: School-Community Relations

- LT-F-1 Organize and Work with a Local Vocational Education Advisory Council
- LT-F-2 Promote the Vocational Education Program
- LT-F-3 Involve the Community in Vocational Education
- LT-F-4 Cooperate with Governmental and Community Agencies

Category G: Facilities and Equipment Management

- LT-G-1 Provide Buildings and Equipment for Vocational Education
- LT-G-2 Manage Vocational Buildings and Equipment
- LT-G-3 Manage the Purchase of Equipment, Supplies, and Insurance

Category H: Business and Financial Management

- LT-H-1 Prepare Vocational Education Budgets
- LT-H-2 Identify Financial Resources for Vocational Education
- LT-H-3 Develop Applications and Proposals for Funding Vocational Education

Category I: Program Improvement

- LT-I-1 Use Information Resources to Help Improve Vocational Education Programs
- LT-I-2 Use Inquiry Skills to Help Improve Vocational Education Programs

Supportive Materials

- Guide to Vocational-Technical Education Program Alternatives: Secondary and Postsecondary—An Introduction
- Guide to Using Competency-Based Vocational Education Administrator Materials
- Resource Person's Guide to Implementing Competency-Based Administrator Education Concepts and Materials
- An Introduction to Competency-Based Administrator Education (slide/audiotape)

For information regarding availability and prices of these materials contact—AAVIM, American Association for Vocational Instructional Materials, 120 Driftmier Engineering Center, University of Georgia, Athens, Georgia 30602, (404) 542-2586.

ISBN 0-89606-140-X