DOCUMENT RESUME

ED 222 534 TM 820 685

AUTHOR	Hunt, Barbara; And Others
TITLE	Conducting a Student Needs Assessment.
INSTITUTION	Northwest Regional Educational Lab., Portland, Oreg.
SPONS AGENCY	National Inst. of Education (ED), Washington, DC.
PUB DATE	May 82
CONTRACT	300-79-0488; 300-79-0489; 300-79-0490
NOTE	162p.
EDRS PRICE	MF01/PC07 Plus Postage.
DESCRIPTORS	*Educational Needs; Elementary Secondary Education; *Evaluation Methods; *Needs Assessment; Program Development; Research Design; *Student Attitudes

ABSTRACT

This book was written to help educators plan and conduct an assessment of students' educational needs. Chapters regarding information on planning, implementing, analyzing and reporting the results, and making decisions based on the results are included. Political implications for both education and community groups are discussed. Practical, detailed information such as flow charts, sample questionnaire and sample needs assessments forms, and descriptions of procedures are included. (Author/PN)

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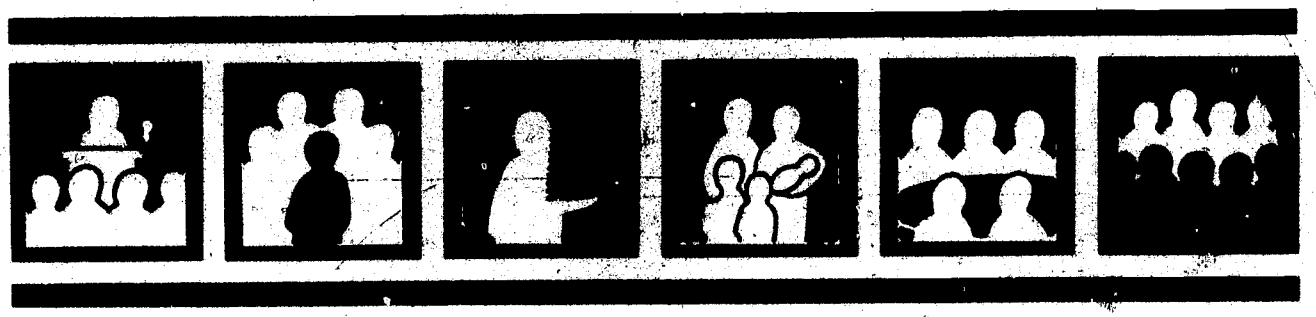
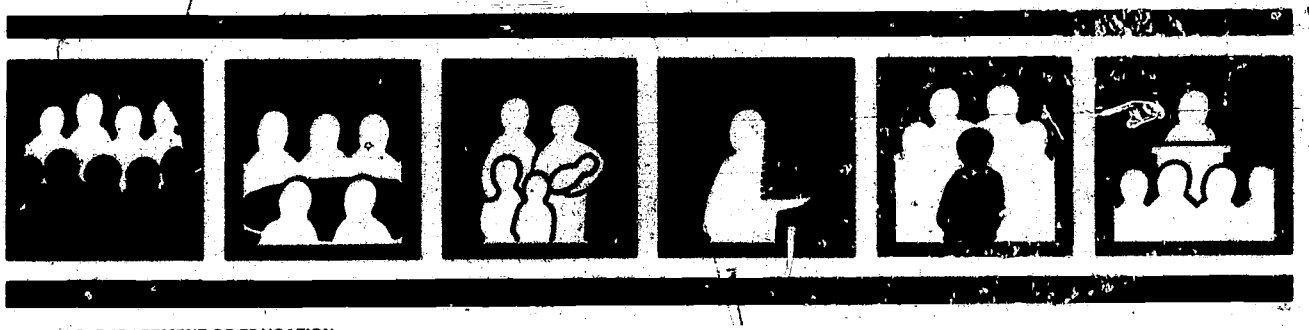


Conducting a Student NEEDS ASSESSMENT



ESEA Title I Evaluation
Technical Assistance Centers

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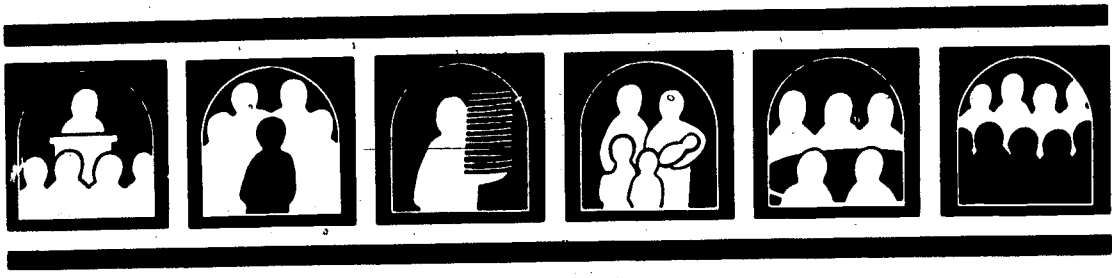

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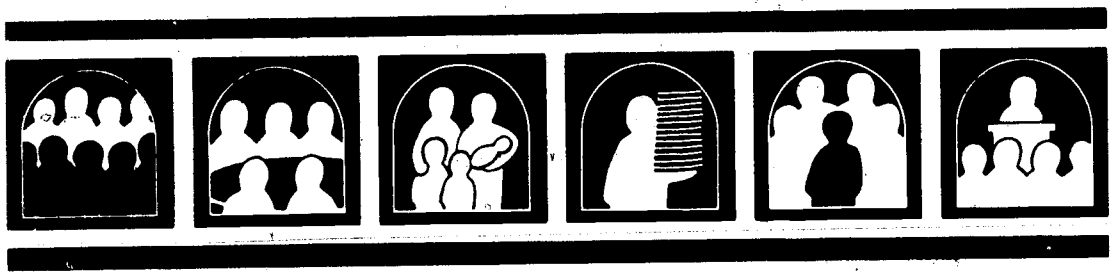

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May, 1982

ACKNOWLEDGEMENTS

The authors would like to thank Kay Struckman and teachers in Parkrose School District and Doris Calkum and teachers of North Clackamas School District for conducting pilot needs assessments. We would also like to thank Dr. Kan Yagi of the Portland School District and Barbara Hutchison of the Women's Educational Equity Program for allowing us to summarize their needs assessments for inclusion in this book. We would also like to thank Colleen Cody for editing and proofreading and Debbie Van Horn for typing multiple drafts of this document.

This project has been funded with Federal funds from the Education Department under contract numbers 300-79-0488, 300-79-0489 and 300-79-0490. The contents do not necessarily reflect the views or policies of the Education Department, nor does mention of trade names, commercial products, or organizations imply endorsement by the U.S. Government.

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INTRODUCTION

This book has been written to help educators plan and conduct an assessment of students' educational needs. The process of assessing needs is based on the assumption that meeting the needs of people--as individuals or in groups--will help them to achieve their full potential.

Material in this book has been gleaned from 10 years' experience in designing, conducting, monitoring and studying needs assessments. The Northwest Regional Educational Laboratory (NWREL) staff, specialists at the Oregon Department of Education, school district administrators, teachers and evaluators have all contributed input to the methods suggested.

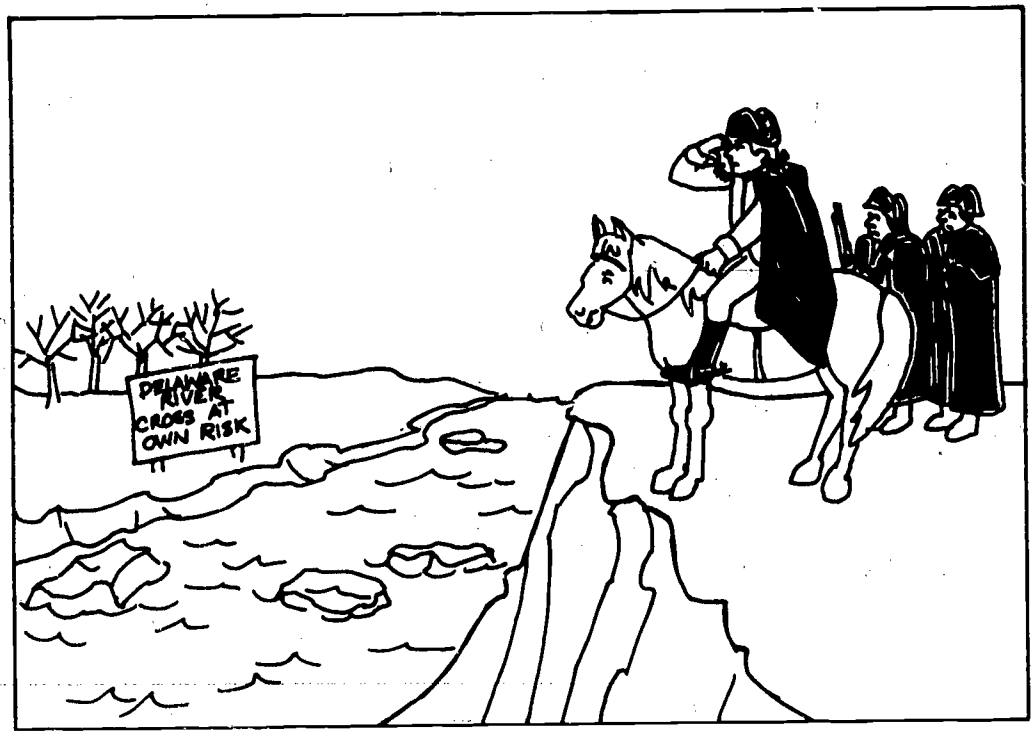
General information about conducting needs assessments is reviewed, including sequences of activities, alternative procedures and rules of thumb. Political implications for both education and community groups are discussed. Practical, detailed information such as flow charts, sample forms and descriptions of procedures have also been included to help readers implement their own needs assessments.

The authors believe that needs assessment should be intrinsic to decision making, program planning and administration, just as other elements such as philosophy, theory and expedience should be considered. While enhancing decisions and programs, needs assessments can document program relevance by pointing to needs that have been identified and served. This attribute is becoming increasingly important in an era where relevance is demanded to justify programs and expenditures.

Although this book has been written primarily to help educators assess the unmet educational needs of students, the content and procedures discussed can be adapted to other groups and organizations.

CHAPTER I

NEEDS ASSESSMENT Overview



WHY CONDUCT A NEEDS ASSESSMENT?

Needs assessments are often regarded in connection with regulations, program compliance statutes or other requirements. In these times of fluctuating appropriations, declining enrollments and more enlightened attitudes towards management, however, needs assessments can be viewed from a new perspective.

For administrators and other decision makers in particular, needs assessments can be a highly effective management tool. They can be used to gather information systematically to revise existing programs or to plan new programs on a long-term basis. They can help build support among different constituencies such as community members, administrators, staff or parents and they can enhance communication with these groups. If funding is an issue, needs assessments can be used to set priorities, allocate resources, revise budgets or justify expenditures to others.

The benefits of a needs assessment are both immediate and far-reaching. Systematically identifying needs and strategies to fulfill them promotes a feeling of program success. Using documented needs as a basis for making decisions also gives administrators a base from which to operate. They can thus avoid making decisions as a reaction to brushfire-type situations which inevitably occur.

In the educational setting, needs assessments can identify the learning requirements of special populations, such as talented and gifted students or those who are handicapped or disadvantaged. Racial or ethnic minorities students of particular age groups such as pre-schoolers or adolescents or an influx of new population may also require an assessment of their educational needs.

Finally, needs assessments can be used to improve the quality of educational services. They provide the information required to target needs, plan programs and develop responsive curricula.

Will a needs assessment fit your particular situation? The next section discusses several examples where needs assessments were conducted and valuable information was collected. Reading about other people's experiences with needs assessment may help you understand how it can work for you.

WHEN SHOULD YOU CONDUCT A NEEDS ASSESSMENT?

School administrators must often make decisions which have far-reaching consequences. Issues related to curriculum, budgets and other policies must be dealt with; controversial subjects such as school closings or curriculum approaches can create an atmosphere of dissension. Conducting a needs assessment is one way to allow voices to be heard and information to be collected in a systematic and responsible way.

One of the most frequent reasons for conducting a needs assessment is to find ways to improve the quality of education, as in the following example.

Joe H. was the Title I supervisor for a school district that used several different teaching strategies. Previous needs assessments showed that improving reading ability was the highest priority for all Title I teachers. Test scores indicated that while some programs were more successful than others, students as a whole were not attaining their desired reading levels. Joe decided to conduct a needs assessment that would focus on students' specific reading requirements. His data sources included students as well as parents, teaching staff, records and other data. The findings revealed new and interesting information about students' and teachers' attitudes towards learning materials. The results became the impetus for modifying curriculum materials and developing information for teacher inservice training.

As school administrators or staff, your concern is students. Sometimes, however, it is impossible to separate

your concern for your students from the impact of schools on the community. Needs assessments can be helpful when student-related problems directly involve the community.

Farmtown School District, for example, had increased enrollments of migrant students every fall and spring during harvests and planting seasons. This led to certain problems: teachers found the influx of temporary students difficult to handle in terms of class size, available materials and staff. Parents of migrant students felt their children were not being adequately helped to succeed in school. The community felt that the quality of education decreased when the migrant students were present.

As an initial response to these problems, the district supervisor conducted a needs assessment. It examined both migrant and regular students' achievement. It also assessed the concerns of teachers and parents, attendance patterns and attitudes towards school and mobility.

The assessment found that teachers had difficulty teaching to so many different skill levels and that the language barrier between students and teachers also caused difficulties. Most itinerant students were found to attend the same districts each year, and were tested five times compared to once for non-traveling students.

As a result of the needs assessment, the district established a competency-based curriculum which allowed teachers to instruct students at a variety of skill levels. Spanish-speaking aides were hired for the months of peak migrant student enrollment. Policies were developed with other involved school districts to transfer school records quickly and to test students only when districtwide testing occurred. Assessment results and solutions were reported to the community at large and to the parents of the migrant students, and were met with a positive response.

No administrator is immune to the problem of fluctuating finances. Lower levels of funding, budget cuts or declining enrollments almost always require changes in staffing and services--tough decisions. Conducting a needs assessment won't make this task painless, but it will produce basic information from which to make responsible, well-documented decisions.

Declining industry caused severe cuts in Port City's school budget. Sally B., the district supervisor, decided to conduct a needs assessment to identify and prioritize the most important educational requirements for the coming year. The assessment gathered information about the projected student population for the next five years, current achievement levels of students, parents' educational priorities for their children and extracurricular activities. Results of the assessment predicted a 20 percent decline in student population, acceptable achievement levels in all subjects for elementary grade students and math scores that were lower than desired for high school students. Parents and other community members showed a high priority for maintaining specific extracurricular activities.

In response to the needs assessment results, the district developed several plans. They closed two elementary schools in areas expected to lose the most students and established multi-grade classes for those grades with the fewest students. High school math teachers offered more individualized math instruction and volunteers for high-priority extracurricular activities were recruited.

Improving the quality of education, increasing the involvement and support of community members, responding to monetary adjustments--these are some of the situations where needs assessments can help administrators make judgments in difficult circumstances. A properly conducted needs assessment will provide information from every involved segment in your district. Your decisions will be informed,

not arbitrary; you'll be able to substantiate and document your actions.

There are also many benefits to those who participate in the assessment. The process of obtaining information from parents, teachers, students and community members can defuse potentially hostile situations. Communication will be enhanced throughout the community, creating a feeling of participation and support. Involving people in a needs assessment gives them a say--and a stake--in the educational system.

Thus, conducting a needs assessment has many benefits--if it's carried out in the right way. The emphasis of this book will be on conducting needs assesments properly. Planning the assessment is discussed in detail. Step-by-step procedures are given for collecting and analyzing information and making decisions. Before we investigate further how to conduct a student needs assessment, though, let's take a closer look at how the process is defined.

WHAT IS A STUDENT NEEDS ASSESSMENT?

From an administrative point of view, a needs assessment operates somewhat like a camera. Information is collected and recorded from several sources, analyzed and synthesized to provide a data-based snapshot of what is being investigated. This reflection of reality is compared to the ideal--your program goals and expectations. If there are differences between the two, decisions can be made to reduce this discrepancy. In the educational setting, needs assessments investigate the discrepancy between existing characteristics and those that students require to learn in school. In any application, needs assessments identify the difference between what should be and what actually exists--the gap between desired conditions and reality.

Frequently, awareness of this gap provides the impetus for conducting the needs assessment. In the example from the previous section, Joe H. conducted his needs assessment because reading scores in his district were lower than those desired. The needs assessment was carried out in Farmtown because several factions were unsatisfied with the education situation as it was--they were comparing it to their ideal of what it <u>should</u> offer.

Sometimes it is necessary to conduct needs assessments when external events, such as budget cuts, alter your current conditions, thus causing a corresponding change in your expectations. In an earlier example, Sally B. conducted a needs assessment when decreased levels of funding made it necessary to alter program goals. Needs assessments can thus be used to investigate unsatisfactory conditions to set new goals in response to outside changes.

Another way to define a needs assessment is to consider all the things it is not. Many people confuse needs with solutions, for example. They may state, "We need to work more with students individually on math," or "We need a new parent-teacher organization," or "We should use the ABC series on phonics." They may think they are defining needs when in fact they're proposing a solution.

Proper needs assessments describe present conditions, not solutions. Using the previous examples, statements of need would state: "Our students are scoring lower than desired in math," or "Parents aren't involved in school as much as we'd like" or "Students are having trouble with phonics." These statements describe situations or problems--they don't propose answers or solutions.

The distinction between stating needs and proposing solutions is a subtle but important one. The following example shows what can happen when a needs assessment focuses on solutions instead of needs.

Reading scores in Roundville School District had been declining for several years. Parents, school board members, teachers, students and other community persons wanted to examine the situation and try to identify problems. They conducted a needs assessment but inadvertently focused attention on solutions instead of needs. Various factions quickly formed. Some supported the implementation of intensive, structured curricula. Others advocated a more loosely structured, "fun" learning environment. Some blamed the scores on individual teachers. The assessment quickly degenerated into a battle of opinion and no helpful conclusions were drawn.

As you talk with participants to gather information, you'll probably find that they have a tendency to think in terms of solutions instead of defining the need. It is important that you focus discussion on present conditions. Resist those temptations to discuss <u>why</u> things are the way they are, or <u>how</u> they could be better--you'll be jumping the

gun. Concentrate on "telling it like it is." Specific techniques to help participants focus on needs instead of solutions are discussed in detail in Chapter III.

Needs assessments also get confused with cause assessments, which identify points of weakness or reasons for the present conditions. The cause assessment might state, "The math curriculum was hard for our teachers to use, that's why scores were low," while the needs assessment would state, "sixty percent of our students scored lower than what was expected in math." It identifies the difference between what should be and what actually exists.

You should also avoid the temptation of stating wishes or desires when conducting your needs assessment. A wish assessment can be useful, but it will differ considerably from a needs assessment since it deals with the future, not the present. Wish assessments may also tend to be unrealistic in scope or they may suggest goals that may be difficult if not impossible to attain. For example, a wish assessment may state, "All students should be reading above grade level by the end of the year," while the needs assessment would state, "Half of the Title I students are reading below grade level."

Just as distinguishing between needs, solutions or other kinds of assessments is important, you should also differentiate between the needs of your students and the needs of the district or the school as a whole. Keep in mind that the focus of the assessment is student needs--the characteristics they require to learn in school. Material acquisitions such as new buildings, swimming pools or band uniforms may benefit students, but they are essentially district needs--they do not directly address students' educational requirements.

The type of needs assessment discussed here focuses on group needs. These needs are developed by compiling and analyzing information from many individuals. Information collected about individual children may also be used for classroom planning.

THE IMPORTANCE OF BEING SYSTEMATIC

Since you will be using a variety of methods to collect, compile and analyze many different kinds of information, it is important that your needs assessment be systematic. Conducting your investigation in an organized, methodical way, much as a detective would, will enable you to develop a reliable data base from which to make your decisions. Unsystematic investigations may lead to collecting biased information, fuzzy facts, or you may overlook important clues, as the following example shows.

A high percentage of teenagers and adolescents were dropping out of school in Terrytown. Unemployment for teens was low, the incidence of petty crime not surprisingly was high. So Tom M., the supervisor of the school district, decided to conduct a communitywide student needs assessment to identify what learning needs were not being met for these students. Since he was using many different sources of information--students, parents, teachers and church and community leaders, he decided to use a variety of data collection methods. He also elected to conduct the needs assessment casually and informally, hoping participants would be more relaxed and results more candid. The results were, instead, difficult to interpret. Since he didn't standardize his questions, many of his respondents addressed different topics. Much of his information was collected by informal interviews which were not recorded. He had to depend on his own recollections and those of his untrained volunteers. When compiling his results, he found that the interviewers had forgotten what was said in earlier interviews or attributed certain statements to the wrong persons. He had also neglected to get feedback from certain

factions who felt slighted and voiced their dissatisfaction through the media. His needs assessment wasn't a total failure because he did instigate a lot of much-needed communication, but it also wasn't as effective as it could have been had he been more systematic.

Conducting an effective needs assessment takes a lot of forethought to avoid wasting time and resources and to maximize activities and results. If Tom M. had thought out each step in the process, he probably would have avoided his data collection problems and perhaps would not have overlooked those neglected factions.

The next section presents an overview of the needs assessment process. It walks you through each step to give you a general picture of what to do, what to expect and how each step ties in with the others.

AN OVERVIEW

When you conduct your student needs assessment, you'll be performing four major activities: planning it, implementing it, analyzing and reporting the results, and making decisions based on the results. A chapter is devoted to each of these steps; they are also reviewed and summarized here to give you an idea of what's involved.

PLANNING THE NEEDS ASSESSMENT

It is important to plan your needs assessment carefully, to help ensure its success and to avoid some of the pitfalls mentioned in the earlier examples. You first need to formulate your goal statement, which will be the objective of the assessment. You'll also need to determine the scope of the study--will you be assessing all students' needs in every subject? Will it be a one-year or three-year study? Will it be conducted at the classroom, school or district level? What methods will you use to collect information and who will be your information sources? All these factors should be considered when you plan your assessment. Detailed information about these activities is included in Chapter II, along with sample timelines.

IMPLEMENTING THE NEEDS ASSESSMENT

After you've figured out your goals, the scope of the assessment, what methods you will use to collect information and from which sources, the next step will be to implement your plan. Chapter III gives detailed, step-by-step procedures for six different information collection methods.

MAKING DECISIONS FROM YOUR NEEDS ASSESSMENT

This step involves analyzing, reporting and prioritizing the findings so that you will have a foundation from which to make decisions. How do you interpret data to determine what's most important or what can be cut or modified? What are the best ways to report your findings? How can you make decisions without alienating different factions of your population? Chapter IV addresses these topics in detail.

Now that you have an idea of what activities should be conducted, let's take a closing look at planning the needs assessment.

CHAPTER II

Planning the NEEDS ASSESSMENT

PLANNING THE NEEDS ASSESSMENT

The success of your student needs assessment will depend, to a great extent, on how well you have planned it. A good plan should describe the goal of the assessment, the scope of the study, sources of information and methods for collecting the information. It should also include timelines that specify persons responsible for each step.

A well-written plan serves several functions: it lists each action, specifies who will be responsible for each activity and allows you to monitor its progress. It communicates to others what is involved and what to expect from the study; it also helps keep the assessment on track should different factions exert pressure to vary from procedures.

Sharing your plan with administrators and community members is a good idea. You could also review a draft with school board members or discuss it with your school staff. You may want to publicize it on radio or TV or have it published in the local newspaper. This will allow interested groups to review it and provide feedback; it will also educate them about the assessment, which can facilitate their participation.

STATE YOUR GOAL

Formulating the goal of your needs assessment should be your first step. This statement summarizes the purpose for conducting the needs assessment, helps focus the study and provides a structure for the assessment activities.

It is important to differentiate between the needs assessment goal and your program goals. Needs assessment goals answer the question, "What do we want the assessment to accomplish?"; program goals might ask, "Based on the results of the needs assessment, what changes should we make in the program?"

Keep in mind, too, that the primary focus of the assessment will be the needs of your students. This perspective should be reflected in your goal statement. Your statement should also define the situation or problem, not propose a solution.

If you're conducting your needs assessment in response to program requirements, your goal might be, "to identify which areas of student achievement show the greatest need." Budgetary matters might be the impetus of your assessment, in which case the goal might be "to identify students' highest educational priority." If your assessment is concerned with needs of both students and other community members, your goal could read, "to identify the highest priority learning needs of gifted, bilingual and low-achieving students."

As in the example above, your statement can contain more than one goal. If you do formulate more than one, you'll want to prioritize them and record them.

When you record your goals, take the time to state them clearly. Well-stated goals will communicate with many different audiences with a minimum of misunderstanding. Goals that are not recorded or are unclear may be altered as people interpret them "in their own words." Written goals will also be useful references when you plan and conduct your needs assessment. As people become involved, they often add new ideas; referring to the goal statement can help determine whether the new ideas are relevant to the needs assessment.

DETERMINE THE SCOPE

After you have stated the goal of your needs assessment, designing its scope should be your next step. These activities include selecting areas to be assessed, determining priorities for these areas, deciding at what level (district, school or classroom) the study will be carried out and determining how long or how often the assessment will be conducted. Once you have set the scope for the assessment, you'll have a more detailed picture of your investigation. You'll know at what level the assessment will be conducted and how much information will be collected.

Selecting areas to be assessed. As we discussed earlier, the focus of your needs assessment will be characteristics students need to learn in school. These characteristics are not limited only to academic or intellectual skills; they also include emotional, social, physical or economic conditions. All of these areas should be considered as you determine the scope of your assessment, so that you don't overlook critical or valuable information.

Lack of knowledge is one intellectual factor that can interfere with learning. Inability to use knowledge or characteristics which interfere with knowledge, such as lack of opportunity or language difficulties, can also obstruct learning and should be considered.

An emotional requirement consistently perceived by parents and teachers is the importance of a positive self-concept in the student. This need is seen at all educational levels and its acquisition appears to be considered a prerequisite to learning basic skills or advanced material. Racial and ethnic minorities nearly

always relate knowledge of, and identification with, their culture as an element of positive self-concept for children.

Social requirements must also be met if students are to succeed in school. Individual or group values should reinforce what is taught in school, as well as how it is taught. Adverse physical, emotional or economic conditions could affect a student's socialization skills to the point of preventing learning.

Physical factors that can prevent success in school may at first seem obvious, but they should not be overlooked. Being able to see and hear sufficiently is important, as is accessibility to educational equipment.

Economic requirements are perhaps basic to students' success in school. Being properly fed and clothed, having transportation to school and being able to afford other activities contributes to students' education.

The following list outlines each of these potential areas to be assessed and lists subcategories under each major head. It has been included here to help you select what areas you feel are pertinent to your assessment.

Your goal statement will provide direction when you make your selection; you will not have to assess them all. Keep in mind that you're looking for areas that need improvement; your resources might be better spent investigating trouble spots rather than areas in which your school or district is already strong.

Intellectual (Achievement level/ability to apply what is learned)

Reading
Math
Language Arts
English as a Second Language
Social Studies
Survival Skills
Science
Other

Emotional

Positive attitude toward school/learning
Independent learner
Family context
Positive self-concept
Positive attitude towards ethnic group
Other

Social

Students get along with other students (in competition or cooperation)
Students can learn in the school environment
Students learn/reinforce appropriate values
Other

Physical

Students have sufficient food
Students can get into the building
Students can get to classroom and use equipment
Students can see materials/blackboards
Students can hear teachers/other students
Other

Economic

Students have appropriate clothes/equipment
Transportation is available to building/other activities
Students can pay fees/costs of normal school activities
Other

If you are conducting a comprehensive districtwide student needs assessment, you may want to assess many of the areas listed. An assessment of students for Chapter I programs, on the other hand, will probably be limited to areas of need covering basic skills and students' attitudes towards those skills.

Prioritize areas of need. Once you have selected appropriate areas of need, the next step is to set priorities for them. This can help limit the scope of your assessment, an important step from the point of view of your resources and time. Conducting a needs assessment will take time and money; you'll want to limit the scope of the investigation to those areas of highest priority.

The importance of needs in education have been outlined in the following diagram.

Diagram:
Needs Target

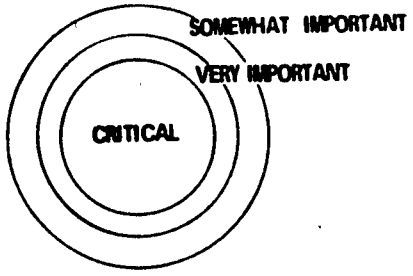


Fig. 1 A sample breakdown of needs

A hypothetical district reviewing areas of need might come up with the following breakdown.

Critical Needs:

Survival skills
Basic skills for required courses
Access to education

Very Important Needs:

Cultural knowledge
Motivation
Social skills
Self-concept
Knowledge related to environment

Somewhat Important Needs:

Positive attitude towards society
Information related to required school subjects
Health and nutrition

When you prioritize areas of need, remember that you're interested in areas of relative weakness. If your school or district is strong in what are classified "critical" needs--if students have uniformly high scores in basic skills, for example, you may want to focus your assessment on needs categorized as "less important."

If you have difficulty selecting which areas of need are important, meeting with school staff, administrators, parents and other community members may be helpful. These discussions will also help you identify what levels of detail would be appropriate to collect for each area.

Determine level of investigation. What is the appropriate unit to assess your students' needs--the district, school or classroom level? Your goal statement and the areas of need you have selected will help you determine the appropriate level of investigation for your assessment.

If your goal is to improve the talented and gifted program in your district, you'll want to conduct your assessment at the district level. If you're investigating the incidence of high school dropouts and their needs, you'll want to limit your assessment to high schools. If your goal is to assess the needs of bilingual students, you'll be checking on bilingual students throughout the district.

If you conduct a districtwide assessment, needs of different groups within the student population as a whole should be addressed. Several subgroups will probably exist within one district--students of different racial or ethnic backgrounds or age groups, for example. Variation in curricula could also create different learning needs, which in turn form other subgroups.

Assessments may be conducted at the school level for planning school programs or curriculum directions. If your schools serve very different students you may want to conduct this type of assessment.

How often should you conduct your needs assessment? Experience with Title I programs indicates that annual needs assessments tend to show the same results--reading and/or math are identified each year as needing improvement. Educators and parent committees have questioned conducting annual needs assessments since the "results are always the same."

In one district, for example, identical open-ended opinion questionnaires were used each year for five years, with the same results. Teachers were discouraged because their best efforts had not made an apparent difference; the needs assessment committee questioned the time and expense of doing another study.

Perhaps the uniformity of results in these examples was the result of continually using the same procedures--the needs assessment process became a rote exercise instead of an open-ended investigation. This situation can be avoided by designing and using an assessment cycle rather than conducting repetitious annual needs assessments.

An assessment cycle uses a variety of information-gathering techniques rather than relying on just one. Thus, it gathers new and different kinds of information and it can also economize on resources.

An example of a three-year cycle is shown on page 23. It calls for conducting a comprehensive needs assessment the first year, with followup and smaller scale assessments the next two years. The comprehensive needs assessment focuses on the total educational needs of children in all grades. It assesses the needs of every type of student in the general needs assessment plan. Information is gathered from different groups as well as from records.

Subsequent needs assessments might focus on only high-priority needs or particular student groups. Assessment methods which require relatively few respondents might be used. These assessments would track the success of innovations in meeting preidentified needs. They would also be used to fine-tune educational solutions which result from the comprehensive needs assessment.

A SAMPLE THREE-YEAR NEEDS ASSESSMENT CYCLE

YEAR 1: COMPREHENSIVE NEEDS ASSESSMENT

- o Look at needs in all five areas.
- o Examine needs for all students in the district.
- o Use methods which involve all educational partners and represent groups well.
- o Develop a plan for:
  1. Comprehensive needs assessment--Year 1 plan
  2. Interim, update needs assessment
     - a. Use different sources and techniques.
     - b. Plan a smaller representative sampling or purposeful sampling.
     - c. Identify assessed needs to probe further.
     - d. Decide how to use Year 1 data as basis for Year 2 and Year 3 evaluations and assessments.
- o Conduct a comprehensive needs assessment.
- o Compile data.
- o Develop a program.
- o Implement the program.
- o Evaluate the program.

YEAR 2: IMPLEMENT PLANNED UPDATE NEEDS ASSESSMENT

- o Compile data.
- o Use results to modify program.
- o Plan program changes or continuation.
- o Implement program changes or continuation.
- o Evaluate program.

YEAR 3: SAME STEPS AS YEAR 2

- o Plan for new comprehensive needs assessment Year 4.

The goal of your needs assessment, your resources and other particulars of your situation will lend some direction about the comprehensiveness of your study.

Table 1 on page 24 lists a number of needs assessment characteristics and the activities involved for minimal, average or comprehensive studies. This can be a helpful resource whether you plan to conduct a three-year needs assessment or if you choose to do one annually.

TABLE 1

THREE NEEDS ASSESSMENT OPTIONS WHICH VARY IN COMPREHENSIVENESS

NEEDS ASSESSMENT CHARACTERISTICS	MINIMAL	AVERAGE	COMPREHENSIVE
Needs to Assess	Basic Skills	Basic Skills, Support Services	Basic Skills, Support Services Social, Emotional, Physical, Economic
Frequency	Annual	Annual + Three-Year Cycle Updates	Comprehensive Annually
Data Collected	Objective or Subjective	Objective and Subjective	Objective and Subjective
Sample Size	Reasonable Sample of Data From at Least Two Sources	Representative Sample From at Least Three Sources	Statistically Representative Data from Three or More Sources
Types of Data	Existing Data	Existing and Generated Data	Existing and Generated Data
Data Sources	School Records Parents	School Records Parents Teachers Students	School Records Community Members Parents Students Administrators Teachers
Data Analysis	"Quick and Dirty" a. Scan __Objective Data __Subjective Data b. Find Discrepancies c. Analyze	Combine Disparate Data __Objective __Subjective Aggregate Analyze	Combine Disparate Data - Objective - Subjective Aggregate Weigh Analyze
Data Summary	Summarize Prioritize Needs Determine: Project Area Grade Levels	Summarize Prioritize Determine: Project Area Grade Levels Evaluation Future Needs Assessment Report to Community	Summarize Prioritize Determine: Project Area Grade Levels

SELECT YOUR SOURCES OF INFORMATION

So far we've discussed stating the goal of your needs assessment and making decisions about its scope--what areas to investigate at what level and how often to conduct the assessment. Now we need to consider sources of information.

The information you'll be using will either exist already or it will have to be generated. Existing information includes school records, teacher evaluations or samples of students' work. Regardless of the goal of your assessment, or the scope of your study, you should be able to collect some existing information that is of value. Your first step, then, should be to collect what existing information is pertinent and available. You can then determine what information must be generated.

When you start listing your possible sources of information, you'll want to consider a full range. Each potential source offers information that could be valuable to your study so it's important not to overlook any. Data fall into two basic categories--objective and subjective. Objective data are collected through standard procedures and interpretations. Existing records, test results, evaluation results, results of structured observations, school records and demographic information all provide objective data. Subjective data include judgments or unstructured information gathered from educators--teachers, aides, administrators and school board members--and noneducators--family members, other students, community leaders, employers and media reporters.

Any group that contributes to students' education is an educational partner. Common educational partners include learners, current students as well as former, perhaps one to two years after they have left school; school staff, teachers, aides and others who work in the school; education administrators at both the school and district level; community members, which includes everyone who lives in the area; and parents.

Because different partners can offer different perceptions of students' needs, you'll want to use as many as you think appropriate. Keep in mind that you want to create as comprehensive a picture as possible of your students' needs, so don't limit unnecessarily the number of sources you use. A list of possible sources of information is included below.

Sources of Information

Existing Data

A. Test Results
   1. Achievement tests
   2. Diagnostic tests
   3. Textbook tests

B. Evaluation Results
   1. Report cards
   2. Grades and GPAs

C. School Records (attendance, vandalism)

D. Community Information (employment, ethnic breakdown, mobility)

Generated Data

A. Teachers
   1. Classrooms
   2. Specialists

B. Family
   1. Parents
   2. Grandparents
   3. Siblings

C. Students

D. Community Leaders
   1. Elected officials
   2. Youth group leaders
   3. Recognized as knowledgeable person

E. Employers of youth

F. Structured observations

The sources of information you select will depend to a great extent on the goal of your assessment. If the goal of your assessment is related to student achievement, investigating existing records won't be enough. You'll want to obtain information from teachers and administrators to get information about how students perform in school; you'll also want to talk with parents, student employers and other persons to find out how students apply academic skills outside of school.

If your assessment goal is related to students' attitudes, you'll want to talk with several sources besides the students themselves. They may have a limited or highly personalized view of their educational situation, particularly if they are younger.

To help you select your sources of information, a sample grid is shown in Table 2. Areas of need are listed in one column, the five educational partners in the others. You may want to use this grid as a sample to generate your own. After completing it, you'll be able to tell at a glance what sources will supply information about each area.

TABLE 2
NEEDS TO BE ASSESSED AND SOURCES OF INFORMATION

	Sample Plan					
Need	Existing Data	Learners	Admin	Staff (Teachers)	Parents	Other Community
Academic						
Math skills of students in grades 1-0	x	x	x	x	x	x (grades 9-12)
Reading skills of students in grades 1-12	x		x	x	x	x (grades 9-12)
Emotional						
Attitude toward school	x	x		x		
Self-concept	x			x		
Attitude toward reading	x					
Attitude toward math	x					

DECIDE HOW TO COLLECT INFORMATION

Once you have selected your sources, figuring out how to get information from them is the next step. Six different methods[1] are defined briefly in this section, along with an outline of the activities involved for each. Advantages and disadvantages of each method are also listed in Table 3.

These materials should give you a general idea of how information for each method is collected and what activities, materials and facilities you would need to provide. You should be able to select your information collection methods after reading this section. If not, Chapter III contains detailed step-by-step procedures for each method.

There are no hard and fast rules for selecting your information collection methods. Your goal statement, budget, sources of information and particular situation will be your guides. It is important to use data collection techniques that are appropriate to your educational setting and community. Will people respond better to written surveys or face-to-face interviews? Will they attend meetings in greater numbers or would they prefer filling out questionnaires? Perhaps individual or small-group interviews would produce the most information.

You may decide to use a different method for each source or the same method for several sources; perhaps a combination of methods would be the best choice. If you have different cultural groups or people whose native language is different from English, special care should be taken so that the collection techniques are responsive to their backgrounds.

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[1]Adapted from those suggested by Hogedom et al. (1976) and Fishbein and Neigher (1981).

TABLE 3

STRENGTHS AND WEAKNESSES OF DATA COLLECTION METHODS

Method	Strengths	Weaknesses
Records Analysis	Relatively inexpensive to summarize	Records may be outdated
	Can be automated	Available information may not be pertinent to potential needs
	Can check data for entire community/all students	
Key Informant	Relatively inexpensive	Misleading unless the key informant adequately represents the identified group
	Allows for longer, interviews which provide in-depth information	
	Provides the opportunity to identify key issues to pursue further	
Group Survey	Entire group can be involved--includes input from the most people	Need to follow up on mailed surveys
		Data analysis can be expensive
	Ensures representation of all subgroups (if well designed)	Less flexible in types of information collected
	Usually multiple-choice questions, so easy to analyze	
Group Forum	Allows input from all interested individuals	Misleading unless all interests are represented at the forum and are willing to speak
	Most public form of data collection	Can be time consuming
	Publicly brings out differences in perceptions among subgroupe or groups	Results may be difficult to summarize and analyze
Nominal Group Technique	Can be used to bring people with diverse interests together	Does not involve entire group--misleading unless all group interests are represented
	Allows input from experts	Requires good planning to establish useful questions
	Relatively inexpensive	
	Time commitment from participants is minimal	
In depth Information on Selected Families	Provides a complete portrayal of the needs of families studies	Expensive to include more more than a few families
	Can provide greater insight into needs than any other method	Studied families may not represent the entire community
		Families may not want to be studied (resulting in sampling bias)
		District may lack the needed expertise

RECORDS ANALYSIS

This method offers a relatively easy and quick way to obtain information about the needs you are investigating. Existing records will probably be a rich source of information and should be tapped first.

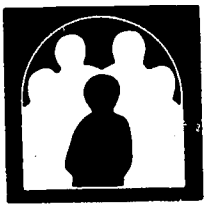
If the goal of your assessment is related to student achievement, standardized test scores, grades, teachers' summaries of achievement and other reports would provide valuable information. Attendance records, enrollment figures and records of skill attainment would also be valuable.

Community records can also provide information. Ethnic breakdowns, mobility rates, employment figures and projections of growth in the area could be helpful. Dropout rates, crime statistics, police records and figures such as graduates who go on to college or vocational school should also be considered to help round out the picture.

Records Analysis generally requires the following steps:

- Find the records for needed information.
- Decide upon a sampling plan.
- Compile pertinent records by hand or computer.
- Devise a scoring system.
- Edit information.
- Conduct analyses by hand or computer.
- Summarize results.

KEY INFORMANT



When you use this method, you'll be selecting spokespersons to represent different subgroups. These are constituencies that may have different needs, such as ethnic or special age groups, students who are talented and gifted or slow learners.

If your needs assessment focuses on attitudes, for example, selecting key informants for each faction in the community could provide you with a comprehensive picture. If your situation is at all controversial, you will want to include those who are critical as well as those who are supportive or who have not yet voiced an opinion. Concerns of different groups will thus be highlighted and you will be able to identify common perceptions as well as conflicts and needs.

After you have identified your key informants, surveys, interviews or group meetings can be used to obtain information; school staff or volunteers could be trained to collect it.

The Key Informant method generally requires the following steps:

- Identify groups to represent the entire target population.
- Call members of identified groups for nominations.
- Summarize nominees by affiliation and select.
- Contact nominees.
- Develop a prototype interview.
- Pilot test interview.
- Revise interview.
- Devise scoring system.
- Train interviewers.
- Conduct interviews.
- Conduct analyses.
- Summarize results.

GROUP SURVEY

Another way to collect information is through a survey of all or a representative sample of the population to be addressed.

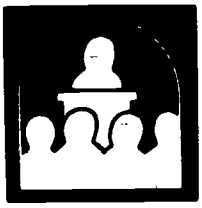
The most common type of survey involves questionnaires, which can be mailed, sent home with students, passed out at meetings or published in the newspaper. Mailed questionnaires often need a specific followup plan to ensure an adequate response rate. Face-to-face or telephone interviews can also be effective.

Group surveys can be used with any of the educational partners. Care should be taken that the questions are relevant to the entire group being surveyed. Community members might be surveyed about the skill of students working in the community; for example, parents could be asked about their children's success in school. Teachers could be asked to rate each student's achievement in given skills or to list problems faced by numerous students in their classes.

Group Surveys generally require the following steps:

- Develop a sampling plan.
- Publicize the needs assessment.
- Develop prototype questionnaire/interview.
- Pilot test questionnaire/interview.
- Revise questionnaire/interview.
- Train interviewers or questionnaire administrators, if appropriate.
- Write cover letters and followup letters, if appropriate.
- Mail out questionnaires or conduct interviews.
- Devise scoring system.
- Conduct analyses.
- Summarize results.

GROUP FORUM



If you have had any experience with town meetings or public hearings, this method will be familiar to you. It brings together large groups of people who meet one or more times to discuss student needs.

Depending on your particular situation, the format can be relatively unstructured--with all participants voicing their opinions within prespecified time limits, or participants can be asked to resond to prespecified questions. The meetings can be conducted in large groups or you can break up into smaller groups if you've identified group leaders. Conclusions reached in a small-group situation should be reported to the group as a whole.

It is important that all pertinent subgroups be represented in the forum, so that opinion is not skewed to those who are present.

The Group Forum method generally requires the following steps:

- Decide on format for the forum.
- Identify the groups which should be represented in the forum.
- Establish meeting locations and dates.
- Publicize the needs assessment.
- Determine the types of information needed from speakers.
- Conduct forums.
- Check on groups not represented in forums.
- Analyze and summarize forum results.

NOMINAL GROUP TECHNIQUE

As in the key informant approach, this method calls for individuals who represent various subgroups or "partners" to respond to prespecified sets of questions. This approach is particularly useful for setting priorities in a district that may have subgroups with diverse views. It provides a structured format to bring representatives of the groups together and allows participants to present their perspectives in a controlled atmosphere.

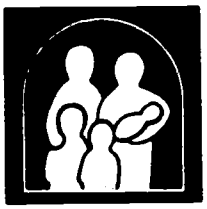
Unlike the key informant method, the nominal group technique can also be used to obtain feedback from experts or specialists in relevant areas. This is particularly helpful when expert information is desired to make projections about needs, to assess magnitude of needs or to identify the importance of different needs for various subgroups within your population.

The representatives of subgroups, experts or specialists that you have selected normally meet only once for a period of several hours. Each member is given time to consider and respond to each question.

The Nominal Group Technique generally requires the following steps:

- Decide whether to involve representatives or experts.
- Select people to cover all groups or specialties of interest.
- Contact panel nominees.
- Arrange meeting site.
- Develop questions/issues for panel members.
- Hold panel meetings.
- Analyze and summarize panel results.

INDEPTH FAMILY STUDIES



This technique involves detailed observation and contact with several families who represent the entire community. Observations of students' and parents' interactions with the schools, discussions with students and parents regarding the schools and individual interviews can be used to portray typical needs of different types of students.

The results of the interactions with family and students are described in depth, taking care to protect the anonymity of the participants. Needs which occur across families or those that seem unique to subgroups of the community can also be summarized at the end of the study. Descriptions that result from this type of study provide more insight into specific student needs and potential solutions than any of the other methods.

This technique is generally uncommon in education, as it requires some knowledge of anthropology or quantitative studies. Social studies teachers or counselors are most likely to know these techniques.

Indepth Family Studies generally require the following steps:

- Identify the families to be studied.
- Decide what information should be collected from family studies.
- Contact families for agreement to the study.
- Develop formats for data collection.
- Collect data.
- Summarize family study results.

CONSTRUCT YOUR TIMELINES

One key to a successful needs assessment is the construction of reasonable timelines. This means that realistic, manageable, achievable goals have been set for each activity that needs to occur. You should schedule ample time for each activity and allow for extra time if certain events in your assessment will be occurring simultaneously with other activities. Setting realistic timelines for every activity is important since each of your data collection methods will require several steps which must be conducted sequentially. If one step is not completed on time, all the others must wait.

Your timeline should list all data collection activities and the specific tasks that must be completed for each. These activities and steps are detailed in Chapter III. Completion dates for each activity and the person responsible for seeing that it gets done should also be listed. Copies of the timeline should be distributed to all those that are involved, so that everyone knows how his or her contribution ties in with the entire effort.

Sample timelines are shown on the following page. You may wish to use this format for your own assessment or modify it to suit your needs. You will probably want to construct timelines for each method you use.

Data Collection Method: Records Analysis
Data Collected From: School Records
Information to be Collected: Average daily attendance, student test scores on IRST

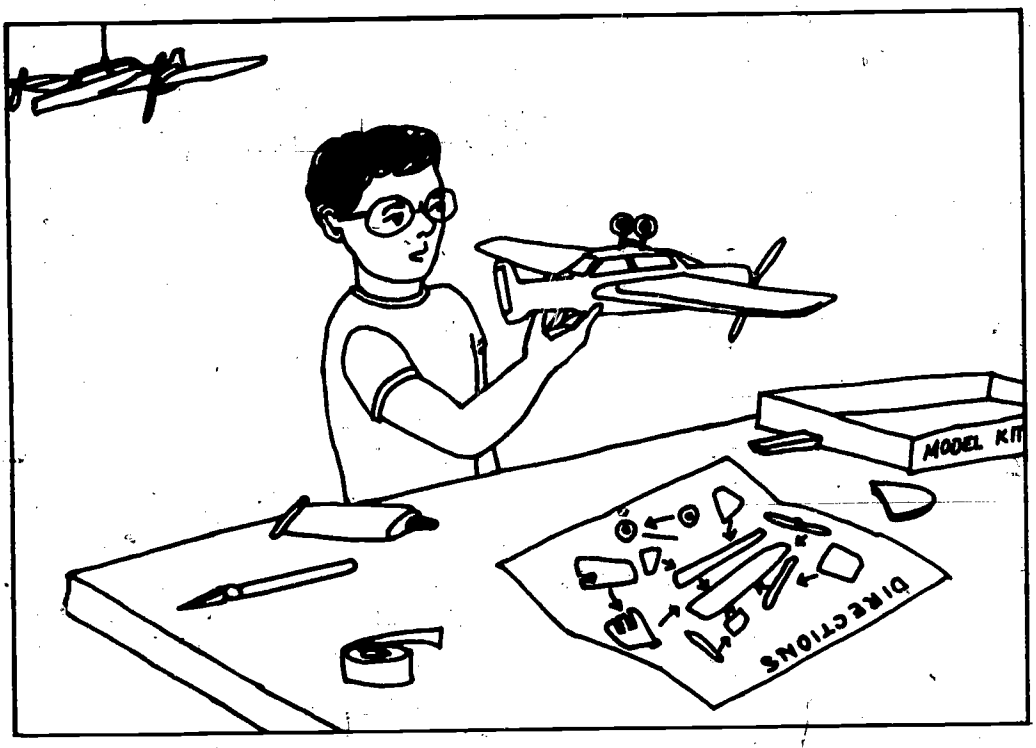
Step	Person Responsible	Deadline
Review data files and determine possible analyses	R. Anderson	3/15
Establish keypunch format	R. Anderson	3/25
Keypunch data and create a file	R. Anderson	3/31
Conduct summaries of data by school for each grade	R. Anderson	4/15
Report on expected number of students in the 1st and 2nd stanine for each subject and grade	R. Anderson	4/18
Combine in final needs assessment report	S. Samper	6/30

Data Collection Method: Group Forum
Data Collected From: Community, Educators and Learners

Step	Person Responsible	Deadline
Arrange for hearing sites	R. Level	3/15
Publicize hearings	R. Level	3/30
Visit groups to talk about hearings	R. Level	4/15
Moderate	P. Thompson	4/15-4/30
Decide information to collect from speakers	S. Samper	4/15
Tape hearings	S. Samper	4/15-4/30
Transcribe hearings	S. Samper	5/15
Summarize and report on hearings	S. Samper	5/30
Final needs assessment report	S. Samper	6/30

CHAPTER III

Implementing the NEEDS ASSESSMENT



IMPLEMENTING THE NEEDS ASSESSMENT

You should be ready at this point to start collecting information from the sources you identified earlier, using one or more of the collection methods discussed previously. In this chapter, specific activities and procedures are discussed in detail for each method. The activities are arranged in chronological order, starting with the first step necessary to implement each method, and ending with information about how to summarize results. In cases where activities are similar or identical to those discussed for previous methods, you will be referenced back.

Some of the methods discussed here involve potentially complex activities such as conducting interviews or constructing surveys. They have been discussed here in as much detail as space permits; references to other sources are also given should more comprehensive or sophisticated information be needed.

After reading through the steps for each of the data collection methods you will be using, you may want to assign persons and dates for the activities and add them to your timeline. This could be a helpful reference particularly if you are using more than one method.

When you have completed all the steps in your data collection plan, you will be ready to analyze your information, make decisions and report the results to your various audiences. This information is covered in Chapter IV.

A WORD ABOUT COLLECTING INFORMATION

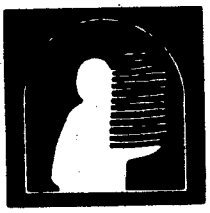
Unless you are relying solely on written records for your data, you will need to elicit the kinds of information desired from a diverse group of people. As you talk with participants, discussion will probably focus on problems, specific programs or activities. Keep in mind that these are examples of solutions, not needs. It is important that you pose the kinds of questions that will trigger discussion of the underlying needs that prompt the solutions.

For example, in a recent needs assessment, participants discussed the importance of having children and adults review lessons together. This was a solution to an undefined need. By asking questions such as "What should the children be learning?", "What would happen if they could learn everything in class?" or "Why is it important for students and adults to study together?", participants began talking about the educational need that prompted their solution.

The progression of responses in these situations often flows from a discussion of solutions to an analysis of the underlying problems. As in the example above, probing questions can help identify the underlying causes for concern. From here, discussions should focus on the need that prompts the solution.

Patton (1980) has an excellent discussion about questioning techniques and about probing for further information.

RECORDS ANALYSIS



Find the records which contain needed information. To gather all the information pertinent to a successful needs assessment, you may need to explore a variety of sources. Some test results are usually available from individual schools, but if testing is districtwide, information including districtwide and building-level summaries should be acquired from district offices. Most district offices will be able to provide enrollment counts for each grade which should include ethnic breakdowns and counts of handicapped students.

Census data, available from the public library, provide information which describes the community. In addition, local city planning studies and unemployment figures may help to assess growth, mobility and future economic conditions.

Select a sampling plan. Several factors must be considered when selecting a sampling plan for records analysis: the type of recordkeeping and analysis planned, the questions to be answered and what resources are available.

A small sample size is essential when resources are limited or if records will be analyzed by hand. In either case, a sampling plan must be designed to obtain answers for survey questions with the least amount of effort. Select the smallest number of units (grades, classes or time periods) that you consider to be typical or representative of your sample. To be optimally useful, this plan must accurately represent all grades, classes or other units examined.

The sample size is also influenced by how certain you want to be that results truly reflect all units, how much variation exists within the district and the scope and variety of your questions.

For example, selecting second, fourth and sixth grades for a study of a district's second through sixth grades may give a representative picture and save limited resources and time. When resources increase, or recordkeeping and analysis are converted to automation, large samples or total district studies become feasible.

Compile pertinent records by hand or computer. Well-assembled information is easiest for district staff to use. If careful thought is given to summarizing or categorizing information, staff can effectively retrieve information for making decisions at the district, school or grade level.

Compiling records by hand. If you have only a few students or if your data are already summarized by school, it may be simpler to compile information by hand instead of using a computer. For hand compilation, you will need to use a form on which all information can be recorded. The design of the form should take into consideration how the information will be coded, what scores to report and what groupings to use. For example, you may wish to record enrollment figures. You could record days absent, percent of days attended, percent of days absent or categorize numbers of days using this code: 1=less than 2 days, 2=less than 10, 3=less than 20 and 4=21 or more. In most instances, it is safest to include the most basic data (in our example, days absent), along with any converted scores you plan to use for the needs assessment. Then, if needed, the data for refiguring the numbers are readily available.

When considering how to group data, summarizing information is acceptable instead of recording each piece of information for each student. Some common ways to group students--including by school, grade and ethnic group--are

described on pages 146-147 in Handbook on Research Evaluation, by Isaac and Michael and in "Needs Assessment Kits, Models and Tools," Educational Technology, by Witkin.

The summary findings should identify special groups that may require different responses based on needs assessment findings. For these groups, the information should be kept intact--do not summarize across groups in a way that prevents you from finding the basic group information. In addition, keep records of the number of individuals reflected in each group; this number may be needed to calculate additional scores. Because some groups will overlap others (for example, ethnic groups will include students in different grades), subgroups should remain intact wherever possible. If this cannot be done, lists of numbers of students act as reminders that the groups overlap. The following is a sample record form for student information.

Sample Student Record Form

SCHOOL	GRADE	ETHNIC GROUP	DAYS ABSENT	TEST SCORES		
				Rdg Comp	Rdg Vocab	Total Rdg
Anderson	1	C	10	8	7	7
	1	B	5	9	8	9
	1	S	3	5	7	6
	1	S	18	2	5	4
Total	4		36	24	27	26
Morse	2	C	7	9	8	7
	2	B	4	7	9	9
	2	B	11	6	7	7
Total	46		22	22	24	23

Compiling records by computer. Computer analysis of data requires the merging of pertinent data on the same file, which is usually copied onto a magnetic tape or a diskette. The objective is to have complete records, which are compatible in format, on all students or schools,

(depending upon the information desired). Schools/students should be given identification numbers and all pertinent information should be similarly coded and entered into a school/student record. If information from several computer systems is to be combined, this step can become time-consuming. Basic information related to developing computer files can be found in How to Calculate Statistics, by Fitz-Gibbon and Morris (1978); How to Measure Attitudes, by Henerson, Morris and Fitz-Gibbon (1978) and Introduction to Statistical Data Processing, by Sterling and Pollack (1968).

Devise scoring systems. Needs assessment information usually fits into one of two categories: quantitative data, which are expressed in numbers, and categorical data. Quantitative data have built-in scoring systems. You need to decide whether to use actual numbers or conversions of these numbers (such as percent correct instead of number correct) and whether to reassign numbers. If a high score sometimes reflects high need and at other times little need, reassign numbers so the high need is always scored high or low. This consistency makes it easier to combine results at a later time. In addition, data interpretation is easier since a person can interpret all figures, tables and graphs using uniform guidelines.

Categorical or qualitative data are harder to score. If a computer is used for analysis, most qualitative data need to be assigned numbers. For example, when describing students by ethnic group, we may have the following categories: Native American, Asian, Black, Hispanic and White. For hand analysis these categories can remain as they are. For computer analysis, they are usually assigned one-digit numbers. In this example, there is no order to the categories (i.e., one ethnic group is not more or less than another). Similar assignments may be used for comments or categories of answers on a questionnaire. A label for

each category is required, but assigned numbers need not reflect any particular ranking.

Other qualitative data may represent a value. For example, parents may be asked:

Does your fourth-grade child read road signs and posters?

___ Very rarely
___ Sometimes
___ Almost always

In this case, the three possible responses represent increasing ability, and numbers which reflect the ability level should be assigned. These numbers could range from 1=rarely to 3=almost always (or the assignment of numbers could be reversed). Such numbers, if carefully planned, may be averaged later to show overall achievement levels. More information on how to handle quantitative and qualitative data can be found in Introduction to Statistical Data Processing, by Sterling and Pollack, chapter 4 (1968).

Edit information. Any time information is copied or transferred, it should be edited. Editing involves reviewing all information for errors or blanks and making appropriate corrections. Look for obvious flaws--numbers that are too high or too low, different amounts of information on different individuals, or noncorrespondence between numbers that should match (such as student counts).

Apparent errors should be corrected; missing information should be tracked down whenever possible. Keep in mind when checking data for reasonable values, that extremely high or low values may represent valid differences. Reasonable or expected distributions of values can be used to formulate rules of thumb for checking data.

Conduct analyses by hand. When conducting analyses by hand, you are generally limited to descriptive statistics such as averages or totals of the frequencies of scores and responses. Hand analysis often involves recording and tallying responses, although programmable calculators can be used to simplify this task.

However, alternative methods are available. One uncommon but potentially useful method involves information cards. The cards have holes punched all along the perimeter. Different responses about needs are coded by punching new holes in the card so that the original hole extends to the edge. Long skewers or rods are then pushed through the existing hole for a piece of information. The cards on the skewer can be counted to indicate the numbers of people in a certain group or giving a specific response to a question.

The most common type of analysis is the calculation of frequencies, group averages and standard deviations. Averages can be compared among different groups or to standards. Good references on basic ways of analyzing data are: How to Calculate Statistics, by Fitz-Gibbon and Morris; How to Measure Attitudes, by Henerson, Morris and Fitz-Gibbon and Handbook in Research Evaluation, by Isaac and Michael.

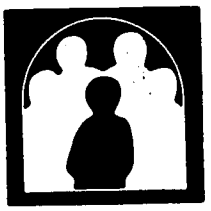
Perform analyses by computer. Computer data analysis should be easily accomplished using existing computer programs. Commonly available programs for larger computers include SPSS (Statistical Package for the Social Sciences) and SAS (Statistical Analysis System). These packages also offer cross-tabulations which indicate the frequency and percentage of prespecified responses or score ranges for different groups. Statistical packages are also available for most microcomputers. They can provide average scores and frequencies of responses for groups identified by the programmer. In most cases, computer expertise is needed to do computer analyses efficiently.

Summarize Results

Most results of records analysis can be easily displayed in tables, simple graphs or figures. Bar graphs are commonly used to show number of occurrences or responses. Pie graphs are helpful for illustrating percentages. Excellent examples of a variety of graphs and figures can be

found in chapter 4 of How to Present an Evaluation Report, by Morris (1978). Some sample charts and graphs are included in this book on pages 113 and 114.

KEY INFORMANT



Identify groups to represent the entire population of interest. In the key informant method, spokespersons are selected who can articulately and adequately represent school staff, parents, other community members, or whatever other sources of information you have selected. Selecting a few, specific people as representatives of an entire group is called purposeful (as opposed to random) sampling. Purposeful sampling is used for techniques which require indepth information. The effort and time involved in collecting and compiling information at this level usually precludes the involvement of a large number of people. Therefore, when you select your participants, make sure they represent the full range of persons included in the group.

Purposeful samples can focus on extreme or unusual groups to illustrate special needs, or they can include representatives of organizations or subgroups identified as "typical" to show the needs of similar groups. They may also cut across the total population to examine common patterns of needs and differences among the subgroups. An excellent discussion of purposeful sampling is available in chapter 5 of Qualitative Evaluation Methods by Michael Patton (1980).

You can identify which subgroups to include in your sample by examining job functions, group affiliations or demographic characteristics in your population. For example, among educators there are district administrators, school administrators, certified teaching staff, noncertified teaching staff, certified resource staff (counselors, librarians), noncertified/nonteaching staff

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(secretaries, custodians), and volunteers. Each offers a different perspective on student educational needs.

Learners may be grouped in various ways--by age, ethnic group, years in the district, school, and special characteristics (disabled, non-English speaking). Special learner groups in some needs assessments include dropouts and graduates who have been out of school for one or more years. The community can be categorized into a variety of groups, including businesses and social organizations. Group members can be classified by ethnic group, job, socioeconomic statistics, age, etc. Parents may additionally be grouped according to age of their children. When deciding what subgroups to represent in your sample, consider these questions:

- Is it politically important to get individual information from certain groups?
- Do you expect different perceptions/information from these groups?
- Would you develop different school programs if various information or needs were reported by the diverse groups?

If the answer to any of these questions is "yes," subgroups would be useful for your study. If the answer to all questions is "no," separate groups are unnecessary.

Call members of identified groups for nominations. Once important groups have been identified, find several existing organizations in which each group participates. Call those organizations, describe the needs assessment and ask for nominations. As people begin to be nominated by several organizations, you can be confident that group leaders are being found. Be sure to select at least one backup nominee for each group.

Summarize nominees by affiliation and select. Once you have a list of nominees, summarize the groups with which they seem to be affiliated. You can do this by making informal inquiries about them. As you list group

affiliations, decide how groups should be represented. Do you want one person for each group, two for some, or a proportion of the group members? If a strong minority viewpoint exists within a group, you may want to select representatives from each perspective.

Develop a prototype interview. The key informant approach offers the advantage of indepth information. The interview format selected should allow participants to respond comfortably, accurately and honestly. Basic interview approaches include the general conversational interview, the general interview guide approach and the standardized open-ended interview (Patton, 1980). They differ in the extent to which interview questions are determined and standardized before the interview occurs.

The informal conversational interview covers pre-identified needs assessment questions during the natural flow of conversation. The general interview guide approach outlines a set of issues with each respondent before the interview to ensure all issues are addressed. The standardized open-ended interview consists of a set of questions carefully worded and arranged so that each respondent is taken through the same sequence of standard questions.

Standardized formats generally offer less flexibility and time to explore responses. They are less expensive to administer, however, and provide generally the same information from all respondents. Structured interview formats can be easily referred to when making decisions or analyzing information. The less structured the interview format, the more difficult it is to analyze the data collected by quantitative statistical methods. At the same time, less structured formats also provide more varied information than other formats.

As you plan the interview topics or questions to be addressed, remember to address needs, not solutions. Phrase your questions in terms of student attitudes, achievement

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and success rather than types of school programs, staffing options or budget issues. The comments on page __ may give you some idea of how to focus the discussion.

Interview questions may focus on respondents' experiences, opinions, knowledge or background. Depending on the format used, different types and amounts of information can be elicited. Patton (1980 chapter 7) discusses different options for wording a variety of questions, including open-ended versus yes-no types, probing questions and questions which presuppose knowledge or attitudes on the part of the respondent. Reading this chapter is a "must" if you plan to use indepth interviews.

Contact nominees. Once you have identified nominees, contact them by letter or phone. The contact should explain the purpose of the needs assessment, why the nominee was selected, the level of involvement needed from the nominee and the types of information you wish to collect. If the contact is by phone, you should also answer any questions that they have about the process. If the initial contact was by letter, it should be followed by a phone call. Once nominees have tenatively agreed to participate, you may wish to develop a more detailed schedule with them.

Pilot test interview. Never conduct an interview without testing it first. Pilot testing an interview requires interviewing two or three people who are similar to the key informants. Ask the people to talk about their understanding of each question (if it is a structured interview) as they respond. Did they understand the item? Were they comfortable answering it? Did they base their answers on factors you didn't expect? Did they get to say everything they wanted, or did you cut them off? Did the wording of the question suggest certain responses, or did it leave a range of possible responses open?

Revise the interview. Based on the pilot test, revise the interview format and/or the questionnaire. If you use a conversational interview format, make sure the general

questions of interest are consistently introduced and explored, along with new, related issues. Is your recording medium (tape recorder, notetaking, etc.) meeting your needs? You may want to lengthen the time scheduled for the interview, and revise, add or delete items on your checklist or questionnaire. Once you have revised the interview format or questionnaire to better meet your needs, try it out again. Check your revised instrument against the suggestions in Handbook in Research and Evaluation, by Isaac and Michaels (1971), pp. 98-105, How to Measure Attitudes (1978), by Henderson, Lyons and Fitz-Gibbon, chapters 5, 6 and 7, Designing Sensible Surveys (1978), by Orlich, chapter 2 and Quantitative Evaluation Methods (1980), by Patton, chapter 7.

Devise scoring system. Needs assessment information usually fits into one of two categories: numerical or descriptive. The key informant approach gathers qualitative or descriptive data. Your first step in summarizing the data is to scan the responses for recurring ideas or themes. Most responses will fit into a limited number of categories. You can then tally similar responses to find how many participants made the same response to a particular need. Responses can be ordered or ranked on a particular issue, from positive to negative. For example, you can assign numbers to each category of response and rank them. Information on scoring systems for hand or computer analysis will be noted in the following section on group surveys. More information on analyzing interview results can be found in Foundations of Behavioral Research (1964), pp. 525-534 by Kerlinger and Qualitative Evaluation Methods (1980), chapter 9 by Patton.

Train interviewers. Unless interviewers are well trained, they can dramatically and undesirably influence the responses you receive. Interviewers should first be able to explain the needs assessment clearly and concisely. They should all offer the same general explanation. Interviewers

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should also be able to establish and maintain rapport with respondents. They must learn to encourage people to respond regardless of their own personal opinions. For example, if interviewers smile or nod their heads when people give a "correct" response (i.e., one they agree with), people will tend to give that response, or try to conform to the interviewer's expectations.

If interviewers will be summarizing responses, they should practice summarizing comments to make sure they don't misinterpret comments or ignore salient ones. If several interviewers are used, they should interview several "stooges" so their interview techniques and consistency of recording information can be checked. More suggestions for training interviewers can be found in How to Measure Attitudes (1978), by Henerson, Lyons and Fitz-Gibbon, pp. 100-102, and the Survey Research Center's Interview Manual (1976), chapters 1-5.

Conduct interviews. Interviews can be conducted either from a centrally located site (or sites) or at the respondent's home or place of business. Sites selected should be easily located and accessible in terms of various types of transportation. Interview surroundings should be quiet, as neutral as possible and should allow for privacy.

To maximize the number of interviews, you might send out initial contact letters followed by a phone call a week before the scheduled interview. An additional telephone contact the day before the appointment reminds respondents and may focus their thought on the interview topic.

It is crucial to assure potential participants that their responses will be confidential. Confidentiality ensures that answers will not be attributed directly to the individual. This may encourage them to respond more candidly. Obtain waivers, preferably at the time of the interview, if you want to quote certain portions of the interview to provide "color" or support for the needs assessment findings.

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Allow enough time between interview appointments so that later respondents are not forced to wait. Contact logs should be kept on each respondent so that appropriate followups may be made when unclear responses or unanswered questions are found when the interviews are edited.

Perform Analysis. Data gathered from the key informant method can be analyzed by hand or by computer, depending on how much the data can be categorized and how well they can be ordered into ascending or descending numerical scales. Since the main purpose of the key informant method is exploratory, statistical analysis may be limited. You may want to use simple tallies, frequencies of certain responses or themes, or averages of responses that can be numerically ordered. Quotes that highlight or concretely portray concerns should be included. For more information about advanced content analysis see Qualitative Evaluation Methods (1980), chapter 9, by Patton.

Summarize results. The key informant approach is excellent for exploring and synthesizing needs assessment issues. It offers a more wide-ranging look at needs than other, more structured approaches. Descriptive summaries of results should seek to emphasize themes of needs and variations on those needs. Simple graphs and diagrams help emphasize the results. Quotations also provide convincing back-up for needs assessment findings, but respondent confidentiality should be respected.

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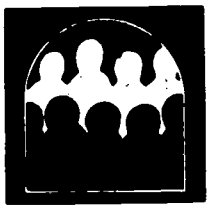
GROUP SURVEYS



Group surveys usually involve the distribution of questionnaires to members of a group. The surveys may be given to all members of the group or to a sample of members. Questionnaires may be mailed, sent home with students, passed out at meetings or published in a newspaper. The group survey technique can also be based upon interviews if small groups are involved or if large numbers of volunteer interviewers are available. (The previous discussion of the key informant method describes procedures for developing, conducting and analyzing interviews.)

Develop a sampling plan. Most group surveys use a sample of the entire group. Sampling an identified group can often reduce the work and cost of a large needs assessment without sacrificing quality of information. Most of us are familiar with sampling. We watch news broadcasters predict the winners of elections based on 10 percent of the returns; we read results of citywide or nationwide polls. In general, a representative sample can provide accurate information using only part of the group--but developing a representative sample requires careful planning. Several sampling techniques are useful. These techniques, briefly mentioned here, are described more fully in Designing Sensible Surveys (1978), by Donald E. Orlich.

Sampling generally works best in very large groups. In the case of small groups, a much higher percentage of people must be included. The size of the sample needed for representativeness is related to how varied you expect responses to be, how certain you want to be that results truly reflect the group, and how much random fluctuation

(error) you expect in responses. If, for example, you wanted to be 90 percent certain that your sample results were within 5 percent of the results for the entire community, you would consider the sample sizes listed below. These sizes are based on computations by Krejcie and Margan (1970).

Group Size	Sample Size
10	10
20	19
50	44
100	80
150	108
200	132
250	152
300	169
400	196
500	217
750	254
1,000	278
1,500	306
2,000	322
4,000	351
5,000	357
10,000	370
20,000	379
50,000	381
1,000,000	384

SAMPLE SIZES

Several kinds of samples can be used. All use some type of random selection. Random selection is like putting the names of all available people in a huge bin and selecting the required number of names one at a time. If you use people who are readily available or those who voluntarily offer information (such as respondents to a questionnaire in a newspaper or sending questions to everyone and considering the respondents a "sample"), yours will not be a random sampling. Similarly, selecting the first (or last) 10 or 20

people on a list can lead to biased results, since many lists are alphabetized. Selecting people in order from an alphabetized list may result in representation by only some ethnic groups.

A simple random sample involves developing a list of all eligible people for the sample and randomly selecting a predetermined number. You can either use a table of random numbers, found in most statistics books to select people, or you might select every 10th or 20th person from the list.

A stratified random sample involves defining pertinent characteristics of group members (e.g., age, time in the district, ethnic group) to develop subgroups. Each person is identified with a subgroup, which represent the entire population to be sampled. Respondents are then selected randomly from within their subgroup. How many to select from each subgroup usually varies, depending upon the size of the subgroup. This type of sample is used in national opinion polls or marketing surveys, which often take into account the geographic area, sex, age or income level of respondents.

When developing a list of pertinent subgroups to include in your survey, review the following question:

- Is it politically important to get information from different groups?
- Do I expect different perceptions/information from these groups?
- Would I develop different school programs based on the information or needs reported by the groups?

If the answer to any of these questions is "yes," separate groups are useful. If the answer to all is "no," this type of grouping is unnecessary.

Publicize the needs assessment. Any needs assessment method that depends on voluntary cooperation by large numbers of participants requires publicity. The publicity should (a) tell people that the needs assessment will be occurring, (b) provide specific information about dates and

locations for the group forum and (c) tell why input is needed from participants. Publicity options include announcements on local radio and TV stations, appearances by needs assessment staff or a high-ranking official on a local talk show, newspaper articles or advertisements, letters to individuals or community organizations, presentations at community organizations or notices posted at local businesses.

Develop prototype questionnaire. Useful data depends on the development of a good questionnaire. Questionnaire development is complex, and expert advice will markedly increase the quality of your needs assessment. A number of very useful books have been written on the topic, including Mail and Telephone Surveys (1978), by Don A. Dillman; How to Measure Attitudes (1978), by Henerson, Morris and Fitz-Gibbon; Handbook in Research and Evaluation (1971), pp. 92-102, by Isaac and Michael; The Sampling Survey: Theory and Practice (1975), by Warwick and Lininger and Designing Sensible Surveys (1978), by Donald C. Orlich. These documents cover formats, types of items, cover letters, mailing techniques and analysis.

As you develop your questionnaire or interview, two guidelines will help you stay on track. First, remember that you are assessing needs, not solutions. Your questions should be phrased in terms of student attitudes, achievement and success rather than types of school programs, staffing options or budget issues. Second, items should be worded so that people can comfortably answer very negatively or very positively. Allow a full range of responses. For example, see if you can find the best-worded item below:

A. How well can your fourth graders read?
___ pretty well
___ very well
___ satisfactorily

B. Should the schools teach students to read better?
___ yes
___ no

When they finish the entire questionnaire, ask more questions. Was the task too long? Did it seem to be asking the same questions over and over again? Was the purpose of the questionnaire clear? Are they interested in finding out how others have responded (i.e., the results of the entire group)? Are they interested in what is going to be done with the information?

Revise questionnaire. Based on the pilot test, revise the instrument. You may want to add room for comments, revise questions or responses, add or delete items. Once you have revised the instrument, try it out again. Check your revised instrument against the suggestions in Mail and Telephone Surveys: The Total Design Method, by Don A. Dillman, chapters 3, 4 and 6; Handbook in Research and Evaluation, by Isaac and Michaels, pp. 98-105, How to Measure Attitudes, by Henerson, Lyons and Fitz-Gibbon, chapters 5, 6 and 7 and Designing Sensible Surveys, by Orlich, chapter 2.

Train questionnaire administrators. You may have decided to pass questionnaires out to large groups such as classes, staff meetings, or meetings of community groups like Rotary, PTA, or church meetings. If so, questionnaire administrators should be trained to quickly and sincerely describe the needs assessment and explain why everyone should respond. Be prepared to answer questions about identification codes, particular items or requests to take questionnaires home in advance. Note: Questionnaire administrators must be convinced that the information requested is very important. Otherwise they can subtly (and unconsciously) influence the number and quality of responses. A set of questionnaires was once returned from a group of teachers without any identification codes. The questionnaire administrator for this group had previously commented that he did not see a need for such identification.

Write cover letters and followup letters (if appropriate). When you send the survey out, include a cover

letter explaining the purpose of the project, why the response is important, how results will be used and when results will be reported. Include a realistic estimate of the amount of time it will take to fill out the questionnaire. The cover letter should be signed by someone important to the recipients, usually the district superintendent or school principal. Responses from mailed surveys are notoriously low, so plan to write one or two followup letters, and possibly make a telephone call. Suggestions for these letters and some imaginative samples can be found in Mail and Telephone Surveys: The Total Design Method, by Donald A. Dillman, chapter 5.

Mail out questionnaires (if appropriate). If you are mailing out several hundred questionnaires, planning can greatly ease your task. Use mailing labels and put the mailing list on a word processer (to help with followup mailings). If you do a large mailout, you may want to contract with a specialty company. To increase response rate, several books recommend including a stamped, self-addressed envelope for returning the questionnaire. Using a return mailing permit will be cheaper, however. If bulk mailing is to be done, envelopes should be sorted by zip code. Your post office can probably suggest the most inexpensive ways to set up and structure your mailout.

Along with the mailout, be sure to assign codes to surveys and establish a system for sorting incoming mail daily and checking off respondents. This will enable you to send out followup letters to the right people. Procedures for conducting follow up mailings are described in Mail and Telephone Surveys, by Donald A. Dillman, chapter 5.

Devise scoring system and conduct analyses. If you have used a very structured questionnaire, the steps discussed in the records analysis section will be applicable. For open-ended questionnaires, the discussions in the key informant section should be helpful.

Summarize results. The purpose of a summary is to present your needs assessment results to the target audience in the clearest, most concise and graphic manner. Tailor the summary to what the audience needs to know. Keep your report to a minimum and use charts and graphs rather than tables.

GROUP FORUM

A group forum brings large numbers of people into one or more meetings to discuss student needs. The New England town meetings and public hearings on controversial issues are the most common examples of this method.

Decide on a format for a group forum. Group forums can follow any number of formats such as a public hearing, where people can talk as long as they wish and the forum ends when everyone has spoken. (This method can be lengthy and may discourage "moderates" from speaking.) A similar "hearing" type of forum may limit all speakers to 5 or 10 minutes, but allow them to turn in written comments.

Another type of forum might use a group survey method. In this format, a prespecified list of questions is presented and participants are asked to indicate agreement or disagreement, or to rank important issues. This type of hearing often provides each participant with an electronic switch which can be turned to show a continuum of 1-9. When used with a small computer, the audience can immediately see tallies of the information. In addition, specific subgroups within the audience (such as school staff vs. parents vs. other community members) can be tallied separately.

In a third group forum approach, participants are divided into small groups which discuss a prespecified set of issues. The small groups then report back to the total group about their discussion.

Identify the groups which should be represented in the forum. Unlike the other needs assessment methods discussed in this book, the group forum method allows for little control over participants and their representation of the entire group. Confidence in the results of a group forum can only exist when you are sure all elements of the group

have been represented. Reading the discussion on identifying representative groups in the key informant method will help you identify the groups that should attend the meetings. Once you have identified the groups, make sure that the planned meeting locations and dates are appropriate for all groups. Also direct publicity efforts to reach members of all identified groups.

Establish meeting locations and dates. As you plan meeting locations and dates, keep in mind that you should develop a schedule that gives everyone a chance to participate. If you live in an area where many people work nights, be sure to schedule at least one centrally located daytime meeting. If people would have to drive long distances, consider scheduling several meetings to reduce their travel, or schedule a weekend meeting. Schedule meetings in neutral locations if antagonistic groups are participating. Meeting times should not conflict with other important local events.

Make sure the facilities you schedule fit the format you plan. If your groups are small, locate rooms with movable chairs and tables. If large groups are expected, microphones should be available.

Publicize the needs assessment. Any needs assessment method that depends on voluntary cooperation by large numbers of participants requires publicity. The publicity should (a) tell people that the needs assessment will be occurring, (b) provide specific information about dates and locations for the group forum and (c) tell why input is needed from participants. Publicity options include announcements on local radio and TV stations, appearances by needs assessment staff or a district official on a local talk show, newspaper articles or advertisements, letters to individuals or community organizations, presentations at community meetings or notices posted at local businesses.

Determine the type of information needed from speakers. Some basic information about the participants at the group forums will help in later data analysis. Speakers should always give their name. In addition, they may be asked to identify any organizations they represent and if they are a student, parent, school administrator, school staff or community member. When a community is composed of particularly diverse groups, general information which would help identify group membership is helpful. When unusual information is requested from speakers, be sure to explain why it is needed and develop procedures to protect the anonymity of all participants.

Conduct forums. When planning a forum, select a moderator who can maintain time limits, keep small groups on target and make sure speakers give pertinent information about themselves. The moderator should clearly understand the agenda and any tasks asked of participants. The moderator should be neutral towards all speakers.

Depending upon the selected format for the group forum, different helpers during the activity will be needed. If speakers bring written comments, someone should be there to accept them. If the session is to be taped, all audio-visual equipment should be checked ahead of time and at least one person should be responsible for monitoring the tapes and passing around a microphone (if necessary).

If participants will be involved in a prespecified task, be sure that all needed information is printed and efficiently distributed during the meeting. Also, if any written summaries or comments are to be generated, plan ahead to gather all information before the group disbands. (Participants often write down comments, pick them up with their belongings and walk away with them.)

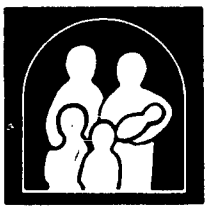
After the first forum, check with others involved about any problems or ways to improve the process. Use this input to refine future forums.

Check on groups not represented in the forum. One objective of group forums is to include representation from the entire population from whom information is desired. One potential problem with group forums is that certain subgroups may not attend. After the first several forums, be sure to check what groups have been represented. If some subgroups are missing, talk to members of those subgroups to encourage them to attend later group forums. If a certain subgroup is not represented at any of the forums, you will need to contact that group separately to obtain information about educational needs.

Analyze and summarize forum results. The main part of the data analysis for most group forums involves categorizing and tallying comments made by different speakers or small groups. Whether the forum focused on small-group reports or individual comments, all recordings of the sessions or notes from the forums should be typed. Where possible, information from different subgroups should be handled separately. Once everything is typed or gathered together, read through the comments, noting all of the needs that have been identified. You will probably find that cited needs overlap; there is no reason to record a need more than once. After looking through all documents, you will have a master list of needs. Look at the list and start to categorize similar needs--do not combine the needs unless they are almost identical in terms of cause, results and groups for whom the need is pertinent. At the end of this step, you should have all of the needs sorted into 20 or fewer over-arching categories. Based on this list, go back through the documents and tally the number of people or small groups that commented on each need (keeping separate tallies for different subgroups). More information about analyzing results of group forums is available in discussions of content analyses by Fred Kerlinger in Foundations of Behavioral Research (1964), pp. 525-534 and Qualitative Evaluation Methods (1980), chapter 9 by Patton.

After analyzing meeting results, you probably ended up with a tally of needs contributed by all of the groups or subgroups. To summarize the results, you may wish to graph the frequency with which each need was identified by each subgroup and by the total group. A short written report might have a table containing the frequencies with which each subgroup commented on a need. A narrative should describe differences in ratings across the subgroups and include quotes which illustrate opinions of different subgroups.

NOMINAL GROUP TECHNIQUE



Decide whether to involve representatives or experts. The nominal group technique is appropriate when you want to meet with group members who represent the entire population in your district or wish to use experts in certain areas of concern to the schools. Since you will gather very different types of information from these groups, it is usually best to interview them separately.

For example, your nominal group might be composed of one or two members from each category of school administrators, school staff, parents and local community and students. If there are very distinct subgroups within any of those categories, you should probably involve a representative from each distinct subgroup. This type of representation is helpful when you want to get disparate groups to agree upon needs. It allows a spokesperson for each subgroup to present the case, yet provides a structured setting for members of the different subgroups to air their opinions and try to reach some agreement.

On the other hand, you may be less concerned with involving all members of the district than with gathering expert information about needs in the district. If so, this technique is ideal for bringing together specialists in desired topics. When experts are used for the nominal group technique, their information should be used to project needs, assess the magnitude of those needs and identify the importance of the different needs for the district population. Expertise could be offered by a testing specialist and heads of different curriculum committees from the school, the community or state level. Experts in bilingual education, migrant populations and migrant

movement patterns, employment projections and vocational education could be involved. These individuals could estimate future needs based on local or state level projections of employment, comparisons with state-wide or local data on student achievement, or information on the numbers of special populations, such as handicapped students, bilingual students, migrant students or economically deprived students within the district.

Select people to cover all groups or specialties of interest. Once you have decided whether to use representatives or experts, identify participants for your panel. This identification will probably result from discussion among other people in the district. For example, if you are looking for group representatives, discussions with different group leaders could identify both the distinct subgroups in the community, and potential leaders of the subgroups. If you use experts, first determine the areas in which you want expertise. This process, again, is usually based on discussion within your district or with consultants from local universities or firms. Once you have selected the area of investigation, you may wish to talk to your consultants, state level personnel, or individuals within the community for nominations to the panel. Select a backup nomination for each type of expert, since not all of your nominees may be willing to serve on the panel.

Contact panel member nominees. Once you have identified the individuals you wish to involve, contact them to explain the purpose of the needs assessment, explain exactly what you expect from them in terms of the level of their involvement, describe the types of information you wish to collect and answer any questions that they have about the process. Once nominees have tentatively agreed to participate, you may wish to develop more detailed schedules or meetings with them.

Establish meeting site and date. As you plan the meeting, select the location and date most appropriate for

all participants. If participants have to drive long distances, consider scheduling mid-day or on the weekend. Schedule the meeting in a neutral location if antagonistic groups are participating. Keep other important local events in mind when scheduling the meeting.

Develop questions/issues for panel members. The issues the panel can address will vary considerably depending upon whether you have selected a representative panel or a panel of experts. For the representative panel, identify issues or questions which elicit their perception of needs in the community. These questions may depict a scenario and ask participants to discuss the problem within this context. Representative panels often focus on solutions rather than on needs. Therefore, careful preparation is required to make sure the group does not get into arguments over solutions. There are two possible ways of structuring representative panel discussions:

1. After an initial presentation about students and different subgroups, ask panel members to interpret those results in terms of the needs of students in the district.

2. Develop some statements of need, perhaps those seen by the administrators and school staff, and ask panel members to respond to them.

Introductory information can also be mailed ahead of time to give panel members time to reflect before they attend the meeting. If this is not done, allow time in the meeting for participants to assimilate and analyze the information. Remember that some participants will be more fluent and able to respond quicker than others. Allow time for all respondents to formulate a position on the needs.

With the expert panel, your task is very different. In this case you want to elicit estimates of the needs of the district and the magnitude of those needs. The sample formats listed above can be used with experts using a slightly different approach. For example, you might base

scenarios on different types of students in your school and ask what those students will need to know to survive in the adult world. Or you may present information on students' current achievement and their educational situation and ask participants to critique the school program and identify needs. The panel of experts could also be given lists of needs and asked to estimate the number of students for whom those needs are severe, moderate or not a problem. In this case, the total panel would work together to develop estimates. In addition, panel members might be used to estimate the amounts of resources needed to alleviate certain needs.

Hold panel meetings. The moderator should keep the topics moving, make sure the panel is aware of its task, clarify the kinds of information or decisions you wish to obtain from the panel, and clarify the concept of "needs." Develop a tentative timeline for different panel activities. Share an agenda at the beginning of the panel meeting, and make sure that the panel is aware of problems when it deviates from the agenda. In addition, someone should be available to record panel discussions and any summaries that are developed. You may also wish to make specific information sources available to the panel to help them determine district needs.

Analyze and summarize meeting results. The discussion of these steps for the group forum method are also appropriate for the nominal group technique.

INDEPTH FAMILY STUDIES

Indepth family studies involve the collection of detailed information on a number of families in the community. This technique requires careful selection of families, clear specification of the general types of information to be collected, and implementation by someone well versed in qualitative studies or anthropology. This expertise is most commonly found among social studies teachers or counselors.

Identify the families to study. The strength of family studies is their ability to graphically portray the situations of a variety of families. Because this type of study is time consuming, however, few families can usually be involved. Selection of families follows the guidelines discussed in the key informant method (under "Identify groups to represent the entire population of interest").

Decide what information to collect in family studies. The information you wish to collect may be quite far ranging. In general, the best information will be that which describes day-to-day needs of the family, aspirations, concerns about education and special needs of the students. The general areas to consider include the home environment, family activities and interactions, students' school environment, student activities and interactions at school, and personal and school records (medical, classroom, etc.). Ensure the privacy and confidentiality of any information you gather from the family.

Contact families for agreement to participate. When you first contact identified families, explain the purpose of the needs assessment, the level of involvement anticipated from them and the general types of information you wish to collect. Initial phone contacts may be used to set up

meetings in the family's home to discuss their involvement. Once nominees have tentatively agreed to participate, you may wish to jointly develop more detailed schedules or meetings with them.

Develop format for family studies/data collection. A variety of data collection methods are useful when conducting family studies. Spending substantial amounts of time with a family would be ideal, but this may not be possible in the needs assessment context. At a minimum, this type of study should include individual interviews with all family members as well as with the family as a whole. In addition, several days may be spent observing the students in school and after school. Family members may be willing to share past information about the students' education; you may want to follow up on previous schools the children have attended. A wide variety of data collection techniques will result in a comprehensive description of the family as a whole and of the students' needs in the school.

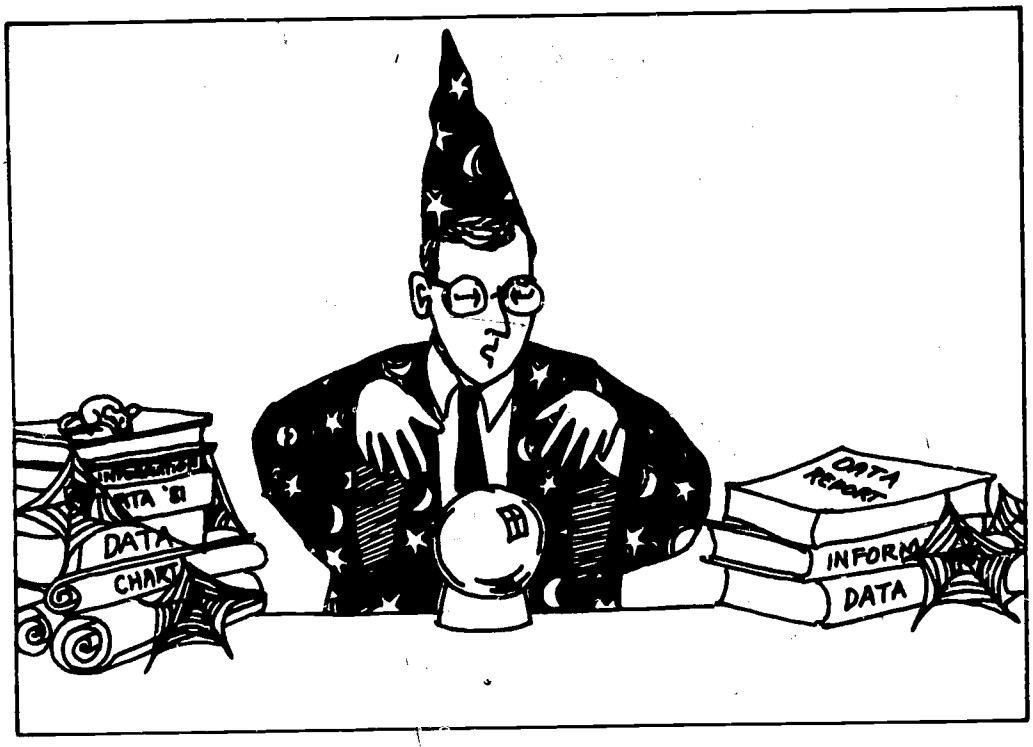
Collect data. Useful family studies are a function of level, detail and concreteness of the family descriptions. Patton (1980) has an excellent chapter which illustrates how to take detailed field notes, how to explain the role of a field worker to participants and how to bring field work to a close. This chapter also discusses interviewing techniques. Some of these techniques are mentioned in the Key Informant method under the section "Develop a prototype interview."

Summarize family study results. The family studies summary will differ radically from any other type of summary for the needs assessment. In general, each family should be described indepth, separately. These descriptions should protect the identity of the family from other readers, and should contain a complete description of the context within which the family operates, students' actions and interactions with school, family's perceptions of student needs and student successes in school. Once each family has

been described, you may want to include a chapter that summarizes needs which occur across families and highlights needs that seem unique to subgroups of the community.

CHAPTER IV

Making Decisions from a NEEDS ASSESSMENT



MAKING DECISIONS FROM NEEDS ASSESSMENTS

Most needs assessments end with the collection of information and a brief summary of results from each audience. Because the results are not synthesized, they are put aside and easier ways of making decisions are chosen.

While there may be good reasons to choose this course of action, not using the information you've gathered to make decisions can cause negative reactions. Participants in the needs assessments may find that their desires, concerns or contributions were ignored. They may feel resentful about the decisions that are made, or they may not be as supportive as they could be if they had been involved in the final outcome.

Besides causing negative reactions among your participants, not using the you collected could be considered a waste of the time and resources involved in conducting the study.

The material in this section is designed to help you use your data to make decisions. The chapter will focus initially on putting your data into manageable form. How to summarize data from different sources by developing composites, weighting data and reporting findings to different audiences will be discussed.

Making decisions from your data will be the second major focus. Techniques for establishing priorities and planning, implementing and evaluating solutions are discussed in detail. A section on political implications of a needs assessment is also included.

SUMMARIZING DATA FROM DIFFERENT METHODS AND SOURCES

After you have gathered information from various sources, you will probably have a diverse collection of data. If you collected information from records or conducted large-scale surveys or structured interviews, you'll be able to tally your data fairly easily. If you have also gathered information using the key informant, group forum or family studies methods, your data will be qualitative or descriptive. They may not be as easy to interpret numerically as tallies. You may also have differing numerical values such as tallies, percentages or ratings.

Your first task, then, will be a little like juggling apples and oranges. You'll need to manipulate your data so that they are equal in value, then construct a composite, or profile of your findings.

Developing Composites

The first step is to assign a numerical system to the identified needs. Much of the information collected is already numerical: the number or percent of students falling in different categories can be counted, average scores can be listed, or the number of students at a specific test percentile can be tallied. Days absent or percent of the school year absent can also be counted.

Systems which are already numerical very easily enter into some kind of a composite framework. But many "counts" may be more meaningful if they are expressed in relation to existing standards. For example, in determining student achievement, it may be more useful to identify students scoring below the 25th percentile (or getting fewer than 30 percent of the test items correct) than to show the average

scores of students. The 25th percentile then becomes a standard which represents a minimum acceptable achievement level. You would then count students below that standard.

Qualitative or descriptive information, usually obtained from the key informant, group forum and family studies methods, requires that you make a value judgment of the seriousness of degree of need which that information shows. These value judgments can be expressed in several ways. Recorded comments may be categorized and tallied. In addition, the evaluator or a team of district staff may judge each category on magnitude and severity of need. A numerical value is assigned which indicates magnitude of need. The number of responses, multiplied by the assigned numerical value or "weight," is then included in the composite.

Keep in mind that data pulled from different sources will not always agree. A survey of family members which indicates a need for vocationally-oriented school work may be inconsistent with results from school personel who may indicate need for improved math or reading instruction. Usually, differing statements reflect different perceptions of these diverse groups. Wherever conflicts arise between groups, it is important to review the needs and try to determine why the groups are differing in their statements. In some cases the values of the groups will differ. In others, the analysis of the problem may vary from group to group.

If the analysis of the problem differs across groups, try to develop clusters of more discrete needs and check the relationships among the clusters. For example, if families see a need for applied math skills while staff report a need for basic skills, especially math, further analysis of math requirements is demanded. Basic math skills should be assessed separately from applied math skills. If students are found to be weak in both areas, the district might establish both as priorities. If students have problems

with only some basic skills and the associated applied skills, district staff might argue that the basic skills were the true need and that applied skills would result from more attention to basic skills.

Weighting Composite Information

Different information will have significance in a composite unless the scores all have the same range. In Table 4, the percent of students scoring below the 25th percentile ranged from 2 to 31 (a range* of 30 points), while teacher priorities only ranged from 0 to 10 (a range of 11 points). The parent survey results went from 10 to 22 (a 13-point range), while teacher ratings went from 4 to 36 (a 33-point range). The two scores with 30+ point ranges far outweighed teacher priorities and parent results when the composite was calculated. The teacher's rankings are simply washed out by larger numbers. To obtain a more accurate balance in the results, these numbers must be adjusted to give the desired significance to each group's opinion.

You'll first need to decide how much weight each type of information should carry. Should test scores carry twice as much weight as other information? equal weight? half as much? Should certain groups' priorities be given more weight? After you have decided if any scores should be weighted, you need to make sure all the ranges represented are comparable.

The following steps tell you how to compute comparable ranges for your scores and how to develop weighted composite scores. If your scores show extreme ranges, compute the standard deviation for them rather than the range. Formulas for computing standad deviations can be found in any basic statistics book.

---

*Range is defined as highest score - lowest score +1.

TABLE 4

NEEDS ASSESSMENT COMPOSITE

Grades 3-6

NEEDS ASSESSED	Percent of Students Below 25th Percentile	Teacher Priorities Based on Test Results	Percent of Parent Survey Results Supporting Need	Percent of Teacher Ratings Supporting Need	Total	Priority Rank
READING:						
Vocabulary	15	5	22	12		
Comprehension	20	5	10	24		
Word Attack	5	0	13	3		
Reading in the Content Areas	28	10	17	31		
MATH:						
Computation	6	0	21	21		
Problem Solving	8	0	11	15		
Reasoning	17	5	14	8		
LANGUAGE ARTS:						
Listening	2	0	21	4		
Speaking	10	0	12	15		
Writing	21	0	22	33		
Composition	31	5	21	36		
Structural Analysis	29	10	14	25		90
Spelling	10	0	17	10		

80

The steps in developing weighted composite scores are:

1. (Optional.) Subtract the lowest score from each score for that type of information and add 1. This step develops a common score system for all information. The lowest score for each type of information should be "1" after this step.

2. Find the range of all information used in the composite. In our example, the ranges were 30 for students below the 25th percentile, 3 for teacher priorities, 13 for parent surveys and 33 for teacher ratings. If you did step 1, the range is the highest number for each type of information.

3. Divide the largest range by the ranges for each type of information. In our example, the results would be:

   Students below 25th percentile = $33/30 = 1.1$

   Teacher priorities = $33/3 = 10.0$

   Parent surveys = $33/12 = 2.5$

   Teacher ratings = $33/33 = 1.0$

4. If all information is to have equal weight, multiply the scores from step 2. All scores for each kind of information should be multiplied by the appropriate score from step 3. The resulting numbers should be added into the total composite score. For example, the numbers used for vocabulary needs would be 15x1.1=16.5; 7x10=20; 22x2.5=55; and 12x1.0=12. The total for vocabulary would be 103.5

5. If some information should carry more weight, multiply the appropriate number from step 3 by the weight for the information. If you want teacher priorities to carry twice as much weight as any other information, multiply all of the teacher priority scores by 20 (step 2 results x weighting = 10x2).

Missing Data

As you analyze your data, you will probably find that some needs have been addressed by fewer information sources than others. These needs are said to have "missing" data and require special handling. Using one of the following methods can alleviate this problem.

The first method of handling missing data is to develop a final composite score which represents an average. Find the average for a need by dividing the total composite score by the number of applicable information sources. This method only works if step 1 of the weighting process, discussed earlier, is used. Table 5 illustrates how this average is computed.

An alternate method is to insert scores for the missing information sources. The inserted scores would be the average score for the information source. In Table 5, test scores were not used for assessing attitudes toward reading or self-concept as a learner. Using this method, the average score for test scores (14+17+1 = 32÷3 = 10.7) would be inserted where the hyphens currently exist.

TABLE 5

WEIGHTED COMPOSITES:

SCORES FROM A

HYPOTHETICAL NEEDS ASSESSMENT

Need Area	Test Scores	Teacher Ratings	Parent Survey	Student Survey	Total	Total ÷ by Number of Sources
Vocabulary	14	15	-	-	29	14.5
Reading Comprehension	17	7	-	3	27	9
Reading Speed	1	7	-	8	16	8
Attitude toward Reading	-	3	16	17	36	12
Self-Concept as Learner	-	16	4	1	21	7

Note: The higher the score, the higher the need.

Separate Analyses for Subgroups

Along with districtwide composite scores, subgroup composites may be useful to identify special needs. Subgroups may be based on dominant language, ethnic background, school, length of attendance in a school or the district, or special programs or disabilities.

You can develop independent composites for these groups by pulling out the information you've collected that pertains to them. Comparing how needs rank for each group will highlight differences among them. In addition, separate composites may identify needs for subgroups that did not come out when overall needs were assessed.

To present data from different subgroups, you can develop profiles for the district and for separate subgroups. These profiles, based on composite need scores, clearly identify differences across subtroups. An example of such a profile appears in Figure 2. Assessment results of English and non-English-speaking students have been separated with respect to basic educational needs. The results were gathered from questionnaires administered to parents and other community members, data from community group meetings and group meetings among school staff. The special need of the non-English-speaking subgroup reveal themselves clearly in the profile.

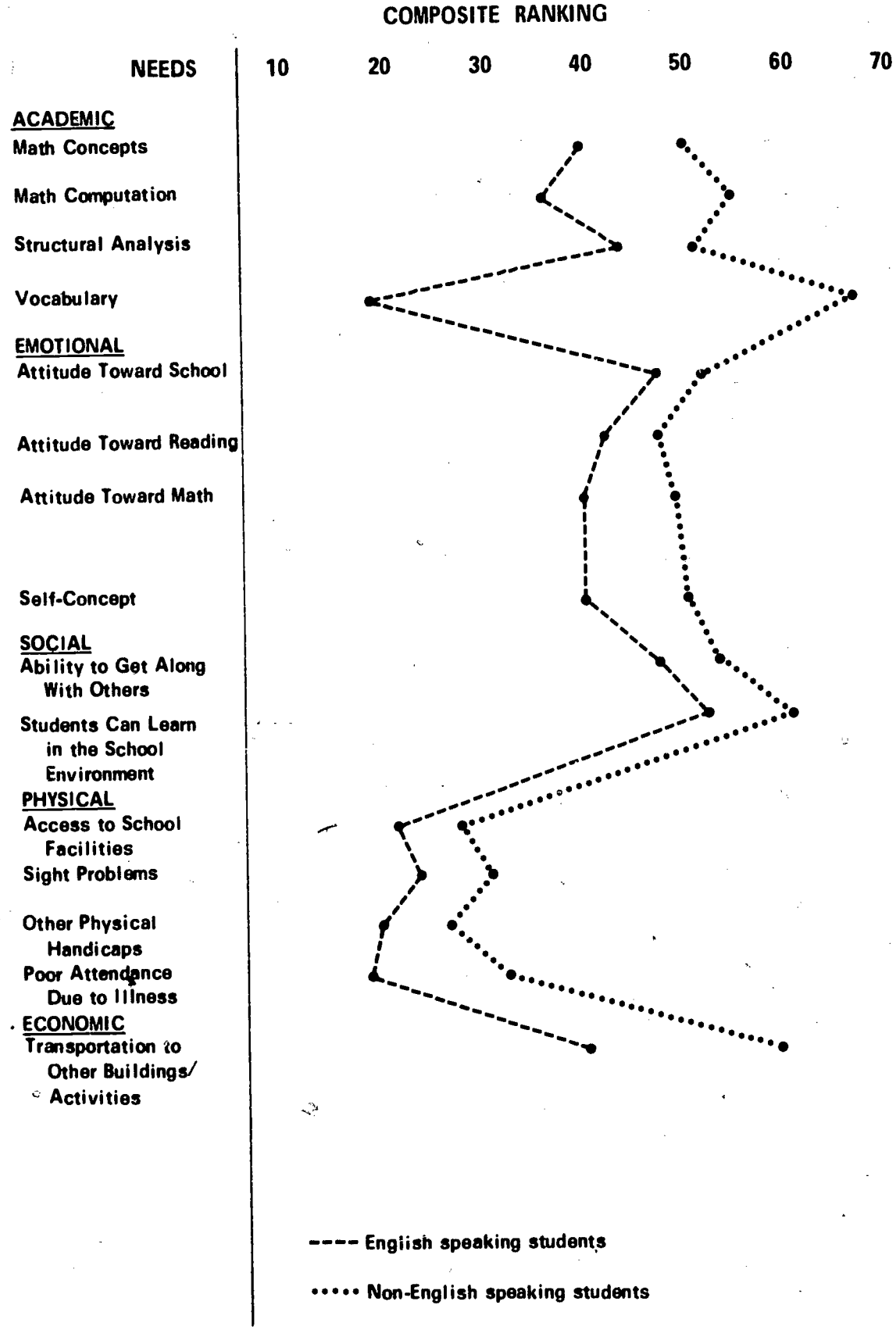


Fig. 2 A sample composite profile for two groups

ESTABLISHING PRIORITIES

After you have developed composites and profiles of your identified needs, the next step is to establish priorities for them. This procedure should actively involve participants. Priorities selected should also complement community values as well as those of educators and parents.

Many of the data collection methods discussed in Chapter II can be used to set priorities. For example, public hearings can be used to both report needs assessment results and to obtain feedback from community members or school staff about developing priority rankings. Less public procedures for developing priorities might use the key informant or nominal group techniques.

After you have selected appropriate method(s) for obtaining input from your participants, you need to structure the way they provide feedback by selecting a framework.

The framework defines the perspective by which participants will prioritize needs. Since everyone has a different perspective, it is important that common criteria are used by all to avoid confusion and conflict. Following are some sample frameworks.

You could ask participants to make their judgments from the perspective of the legal or ethical requirements of students. Another option is to compile a list of district goals or standards and ask participants to assign priorities based on discrepancies from those standards. Another framework might ask for priorities based on the cost or consequences to the district and society of not raising the current level of student performance or attitudes. Yet another framework might consider the number of students who

appear needy or the apparent magnitude of the need. Select one framework and describe it to all participants so their response will show a common perspective.

After you have selected your framework, determine what method participants should use to prioritize their needs. Participants could rate the identified needs in terms of importance. A three-point rating might ask people to decide if needs were critical, very important or somewhat important. Resources and effort would then be aimed primarily toward critical needs. On page 101 is a sample worksheet for rating needs. Page 102 shows a hypothetical summary of needs and their priority based on this method.

Another approach involves asking participants to simply rank all needs in order of importance. Use of this method presumes that the district will meet needs in their rank order as long as resources are available. The sample worksheet on page 101 can also be used for this method. This approach has some problems. Most needs can be addressed at a variety of levels. In this situation, district staff have little guidance concerning the resources appropriate for each need. If expensive methods of addressing the highest-priority needs are used, some very important needs may be ignored for lack of resources.

A third approach might call for participants to distribute points (or dollars) to each need as they see fit. For example, public broadcasting stations have circulated fliers showing the cost of each show (or potential show) and their total program budget. Recipients have been asked how they would allocate the budget for programming. A sample survey from station KAKM in Anchorage, Alaska, is included on page 103. You probably will not indicate budgets for each need, since there are a variety of possible solutions. But the allocation of fixed points or dollars will help set priorities.

SAMPLE WORKSHEET FOR RATING NEEDS

MAGNITUDE OF NEED

1=low magnitude 5=very high magnitude

POTENTIAL NEED	PARENTS	FORMER STUDENTS	ADMINISTRATORS	SCHOOL STAFF	AVERAGE RANK

Hypothetical Summary

of

High Priority Needs

NEEDS	Critical	Very Important	Somewhat Important
Intellectual Needs	Increased reading vocabulary in grades 8-12 English as a second language assistance to migrant students	Increased literacy in home language for migrant students	
Emotional	Positive self-image	Increased valuing of achievement	School recognition of student achievement in at least one area
Social	Ability to work in the school culture (migrant students)	Ability to cope in home and school culture (migrant students)	Ability to contribute in home and at school
Physical	Basic physical fitness	Opportunity for girls to participate in sports Migrant students' access to physical fitness equipment	Increased access to physical fitness equipment for elementary school students
Economic	Clothes to wear to school Transportation to school	Clothes for sports Transportation to sports and practice	

KAKM
Program Poll

HELP CHANNEL 7 SELECT NEXT YEAR'S SHOWS!
HERE'S HOW:

1. CLIP and SAVE this ballot.
2. WATCH The Program Poll, at 8:00 p.m. Monday, January 4 or at Noon on Sunday, January 10.
3. NOTE those programs you'd like KAKM to buy, by transferring their costs to the "buy" column (we suggest pencil).
4. ADD the costs, then adjust the number of titles if necessary so the total does not exceed $140,000 (try to come close).
5. CIRCLE the numbers of those programs you have finally chosen whithin the budgeted $140,000.
6. MAIL or BRING your ballot before January 14, TO KAKM, 2677 Providence Drive, Anchorage, Alaska 99504.
7. THANK YOU FINAL PROGRAMS SELECTED WILL BE ANNOUNCED IN THE MARCH ISSUE OF THE CHANNEL 7 PROGRAM GUIDE. MEMBERSHIPS AVAILABLE FOR $30.00

NO.	TITLE	COST	BUY	NO.	TITLE	COST	BUY
1.	AND SELECTED SHORT SUBJECTS	$ 240		26.	MATINEE AT THE BIJOU	650	
2.	AUSTIN CITY LIMITS	2,700		27.	MEETING OF MINDS	3,045	
3.	THE BEST	2,630		28.	MR. ROGERS TALKS WITH PARENTS	495	
4.	BETWEEN THE WARS	2,170		29.	MISTER ROGERS' NEIGHBORHOOD	5,000	
5.	BLACK AMERICAN SOLDIER	620		30.	THE MOTHER EARTH NEWS	2,790	
6.	BROWN SUGAR	520		31.	MUSIC AMERICA LOVES	1,045	
7.	THE CHALLENGERS	7,660		32.	THE NATURE OF NATURE	2,350	
8.	CHECKING IT OUT	715		33.	NON-FICTION TELEVISION	1,680	
9.	THE COMPLEAT INVESTOR	435		34.	NOVA	22,965	
10.	THE ELECTRIC COMPANY	1,870		35.	OCEAN REALM	3,335	
11.	ENTERPRISE	11,200		36.	OVER EASY	10,285	
12.	EVENING AT POPS	8,820		37.	AMERICAN PLAYHOUSE	27,060	
13.	EVENING OF CHAMPIONSHIP SKATING	410		38.	SESAME STREET	14,920	
14.	EXCHANGE	1,880		39.	SNEAK PREVIEWS	4,030	
15.	FIRING LINE	3,150		40.	SOCCER MADE IN GERMANY	2,650	
16.	FROM SLAVE TO STATESMAN	260		41.	SOUNDSTAGE	3,135	
17.	THE FRUGAL GORMET	590		42.	THIS WEEK WITH CAVETT AND SILLS	9,845	
18.	GREAT PERFORMANCES	6,810		43.	THIS WORLD OF OURS	375	
19.	HERE'S TO YOUR HEALTH	1,760		44.	3-2-1 CONTACT	1,190	
20.	HIDDEN PLACES: WHERE HISTORY LIVES	5,625		45.	UP AND COMING	810	
21.	INTERNATIONAL PLAYHOUSE	3,840		46.	THE VICTORY GARDEN	3,260	
22.	THE LAWMAKERS: ELECTION '82	270		47.	VIETNAM	3,590	
23.	THE LOST CAPRA	835		48.	WALL STREET WEEK	3,185	
24.	THE MacNEIL/LEHRER REPORT	28,425		49.	WILD AMERICA	1,935	
25.	MARK RUSSELL COMEDY SPECIALS	870		50.	WORLD SPECIALS	8,740	

I'd like to become a member.

☐ Please send me a complimentary program guide and membership information.

Name _____
Address _____
_____
Phone _____

_____
Total Cost

Please feel free to suggest additional program titles or types by listing on a separate sheet of paper

This process has several advantages. First, it indicates that resources are fixed and not all needs may be met. Second, it gives district staff guidance in terms of the resources which should be allocated to different needs. Third, it allows districts to attend to some low priority needs which can be met very inexpensively. In other methods of setting priorities, these needs might be ignored.

If you are using a method which brings people together in a group or have allowed time for several sessions with participants, use of a Delphi technique can lead to consensus decisions about priorities. This process allows participants to air their own views and learn more about others' perceptions. The Delphi technique includes several steps. The first is to collect and tabulate initial priorities from participating individuals or groups. These tabulations are then shared with all participants. Any available rationale for priority ratings can also be distributed. After reading the others' priorities and rationales, participants again assign priorities to the needs. In general, participants who have assigned very different priorities from others will move towards the more common view. If participants differ radically after the second rating, repetition of the feedback and rating process may be useful.

After priorities have been established, you'll need to report the results to all of the groups who participated in the needs assessment, as well as to the school board and general public. Information about reporting results is discussed in the next section.

REPORTING NEEDS ASSESSMENT RESULTS

Nothing is worse for school-community relationships than to request input and never show how it was used. Therefore, it is important to report results of your needs assessment to those who participated. There are three distinct occasions when reports should be made.

You should report back to audiences from whom you collected information. An immediate report of results to that audience is good public relations and shows participants that you have paid attention to their comments. A copy of a letter sent out in response to a community-wide survey dealing with attitudes towards schools is included on pages 106 and 107. This survey was part of an evaluation of the effects of school-community groups on local education.

You should also report needs assessment results when the district is establishing priorities for needs. (Ways of establishing priorities are discussed in the next section.) Some summary of needs assessment results is essential for the process.

Once priorities are set, a report on the priorities and their rationale is essential. This report is often aimed at all of the groups participating in the needs assessment as well as the school board and general public.

Northwest Regional Educational Laboratory

SAMPLE NEEDS ASSESSMENT REPORT

710 S.W. Second Avenue • Portland, Oregon 97204 • Telephone (503) 248-6800

August 1977

During April and May of this year we conducted a survey of community members in District C to determine how citizens felt about certain school matters. At that time the district's School-Community Group was just completing its first six months of work and we were interested in what local citizens thought of its activities. We were very grateful that many citizens completed and returned our questionnaires. As you may recall, at the time of the survey we promised to supply you with a copy of the results when the data were tabulated. These, then, are the results we promised.

Of the 237 questionnaires that were mailed to citizens in District C, 126 were completed and returned. Of those returned:

11.9 percent were from members of the School-Community Group
12.7 percent were from the school staff, school administrators, and school board members
24.6 percent were from parents
23.8 percent were from community members who do not now have children in District C schools
27.0 percent were from high school students

When we asked these citizens whether the education offered in District C had changed over the past six months, they responded as follows:

2.6 percent said it had improved a great deal
22.2 percent said it had improved a little bit
55.6 percent said it had stayed about the same
4.3 percent said it had gotten a little worse
.9 percent said it had gotten much worse
14.5 percent said they did not know

Since one of the primary purposes of the School-Community Group is to involve more citizens in local school affairs, we asked which groups do not have enough influence in making school decisions, a question we also asked in our first survey last fall.

Percent of Citizens Who Thought Group Does Not Have Enough Influence in School Decisions

	Fall 1976	Spring 1977
Students	38.1	39.6
Parents	65.2	73.0
Teachers and School Staff	29.7	29.7
School Administrators	14.2	14.0
School Board Members	21.2	18.3
Citizen Groups (e.g., Parent Teacher Association, Parent Advisory Council, School-Community Group)	57.3	52.3
Community Members	73.6	66.7

In the spring of 1977 proportionately more people than last fall thought that parents do not have enough influence while fewer people thought that community members and citizen groups do not have enough influence.

Next we asked the people surveyed how involved they felt they were in school affairs in the community. Their responses both this time and last fall were:

	Percent Fall 1976	Percent Spring 1977
Extremely involved	13.7	8.6
Moderately involved	29.9	25.0
Somewhat involved	19.7	17.2
A little involved	15.4	16.4
Almost never involved	21.4	32.8

Apparently people feel generally less involved in school affairs this spring than they did last fall. Last fall 37 percent of the people responding wanted to be more involved than they were, while this spring 40 percent of the people responding wanted to be more involved.

This spring we asked some questions about the work of the School-Community Group (SCG) in District C. Over 64 percent of those people surveyed said they knew very little or nothing about the SCG. Sixty-four people (14 parents, 12 school people, 15 students, 10 community members, and 13 SCG members) did answer the following questions, however.

When asked how the activities of the SCG have affected the education received by the young people in the district, these 64 people answered that the group's efforts have been:

Very beneficial	7.0 percent
Somewhat beneficial	38.6 percent
Neither beneficial nor detrimental	45.6 percent
Somewhat detrimental	5.3 percent
Very detrimental	3.5 percent

Over 70 percent of these people felt that the problems which the SCG had chosen to work on were important, and 49 percent thought that the SCG would probably or certainly make important contributions in the future.

Fifty-two percent of these 64 people also thought that other school districts could probably or certainly improve how people feel about their schools by using SCG procedures.

We wish to thank you again for participating in these surveys. If you have any further questions, I would be most happy to answer them.

Sincerely,

Nick L. Smith
Senior Research Associate
Rural Education Program

dlr

From: Washington Field Test of the RFD Strategy, by Nick L. Smith, Dorothy L. Erpelding and Sharon K. Owen, Northwest Regional Educational Laboratory, Portland, Oregon; 1977, pp 111-112.

When presenting the results of your needs assessment, you will need to consider your audiences. Your reports should be appropriate to the background and interests of each population. A report that is perceived as too technical may have little impact on some, or it may elicit a negative response that will undermine your entire effort. A report that is perceived to "talk down" can be just as destructive.

While the overall structure and findings of a report should not vary according to your audience, the details and the way the data are portrayed can vary according to their needs. You should take into account the following concerns: Does the group set policy? Does it decide the level of financial support? Does it plan instructional programs? What are their responsibilities, interactions with other potential audiences, time constraints and interests. How much does the audience already know? Use these questions to determine what information a person in that group needs to know in order to fully understand the report.

The following lists some potential audiences. Each may require a specific type of information, data presentation and interpretation.

Parents may have a limited knowledge of existing programs. Their report should include information of a general descriptive nature. They will probably be concerned with the performances of their children and overall program plans that directly affect their children.

Teachers will probably be interested in a report that provides information on overall student progress, skills that require further instruction and the potential impact of the needs assessment on the instructional setting.

Principals and other administrators responsible for supervising instruction will probably need information that tells them if program goals and instructional objectives are being met. They would also want to know what changes are likely to occur if the program is modified to meet the results of the needs assessment.

Curriculum specialists would be interested in data which compare student performance due to different materials, approaches and settings. The implementation of new programs or modification of existing ones resulting from a needs assessment may have direct impact on their responsibilities.

Superintendents will probably have a major role in bringing about changes that result from a needs assessment. They need data that will facilitate working with the school board in setting overall goals, making basic funding and staffing decisions and approving specific instructional or curriculum decisions.

The school board's report can be the same as that presented to the superintendent. Board members would want to know the community's perception of student needs and how performance compares to existing goals. Implications of the assessment results for funding, staffing and programs will be desired. Since this report may be presented orally, careful attention to graphic displays is a must. Moreover, since school board meetings are open to the public, use a presenter who is sensitive to community and parent concerns and can present these effectively in a public forum.

Parent organizations establish links between parents and the schools. A presentation to such a group may have a major influence on how well a needed program is supported by parents and community groups. Graphic displays that are well designed can help.

The news media. Often, the degree to which the results of your study become known, is a function of how well the media reports on your study, particularly if it deals with some politically or socially sensitive issue.

Preparing a formal press release can help ensure accurate reporting. The release should clearly state the needs assessment findings and should avoid any unnecessary information, which reports might inadvertently make the focus of the study. Be sure that the school board, the superintendent, the PTA and any other groups with a legitimate "need to know" receive copies of the report before it is released to the press; they should not be the last to know.

Regardless of who your audience is, your report should contain the following elements.

Summary. Every report should begin with a brief overview of the study and its results. It should state briefly (25 words or less) why the study was conducted and what decisions are likely to result. It should also briefly describe the major findings and recommendations.

Background. This section should provide a general picture of your situation. Why was the needs assessment conducted? The overall program (at the time the needs were assessed) should be described. Preconceived ideas of needs should also be described. Your situation should be described clearly enough so that an outsider would get a comprehensive picture of it.

Design of the study. This should include brief descriptions of the populations who provided the data and the instruments used in data collection.

Results. This will probably be the longest and most detailed section of your report. You should include specific discussions of the results and provide interpretations where appropriate.

Priorities and conclusions (for final reports). This section should briefly describe any conclusions and priorities that have been determined. You might also want to make recommendations about changes in this section.

You will probably want to include graphics in your report. Tables or figures can be very effective methods of communicating abstract information.

A table is a simple arrangement of numbers, symbols or words arranged so a reader can make quick visual comparisons among variables. Background and descriptive data lend themselves well to this format. If you decide to use tables, be sure to make them large enough for your audience to read. All tables should be numbered consecutively, and labeled. A sample is included on page 111.

SAMPLE TABLE

Number of children in each grade level of the schools in the present study

School	Grade 1	2	3	4	5	6
Ajax	17	448	616	93	45	2
Smith	23	45	76	99	56	18
Overton	14	6	89	44	67	39
Underton	56	99	85	77	65	21
Middleton	78	70	1	4	98	60
Otherton	76	98	34	43	89	16

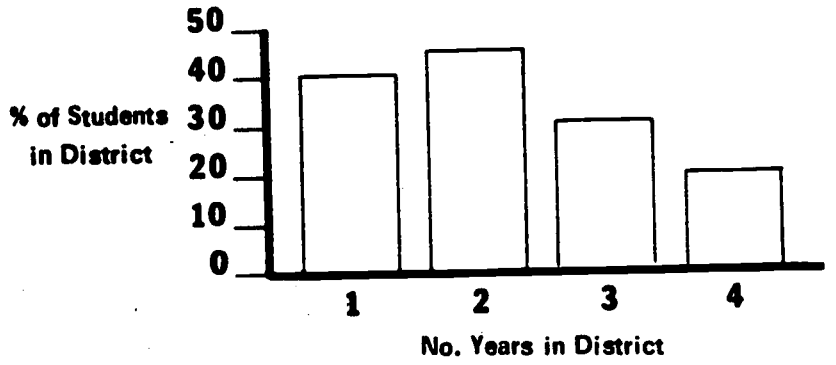
Figures, which include charts and graphs, are also effective communicators. They can be used to portray a bold, visual message that will directly support conclusions.

Figures should be portrayed in a simple, legible format. Once again, you should consider your audience. How big should the visual be if it is to communicate effectively? Avoid the temptation to present too much information. Your audience should be able to grasp the message your figure is conveying almost immediately. You can add interest and mearing to your charts or graphs by using symbols. If you are dealing with costs, you might plot your graphs with dollar bills or coins. Numbers of pupils can be represented by stick figures.

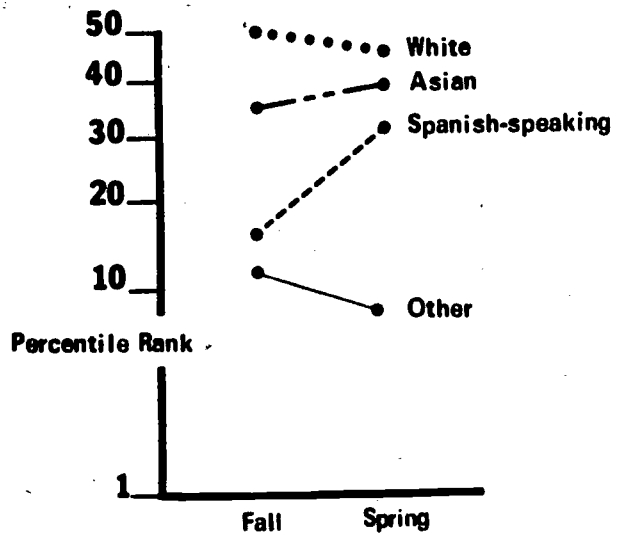
As with tables, be sure to number your figures consecutively (i.e., Figure 1) and label each. Several examples of charts and graphs are shown on pages 113 and 114.

After you have reported your results and obtained feedback about them, you should be ready to plan, implement and evaluate solutions to meet your needs. The next section discusses this step.

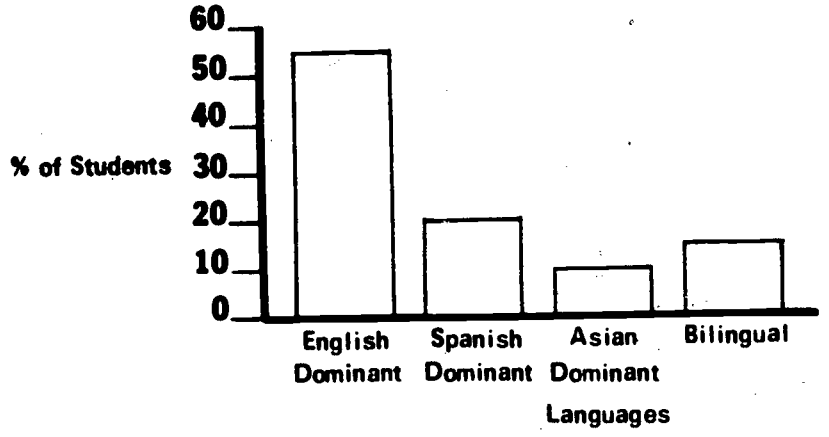
SAMPLE CHARTS AND GRAPHS



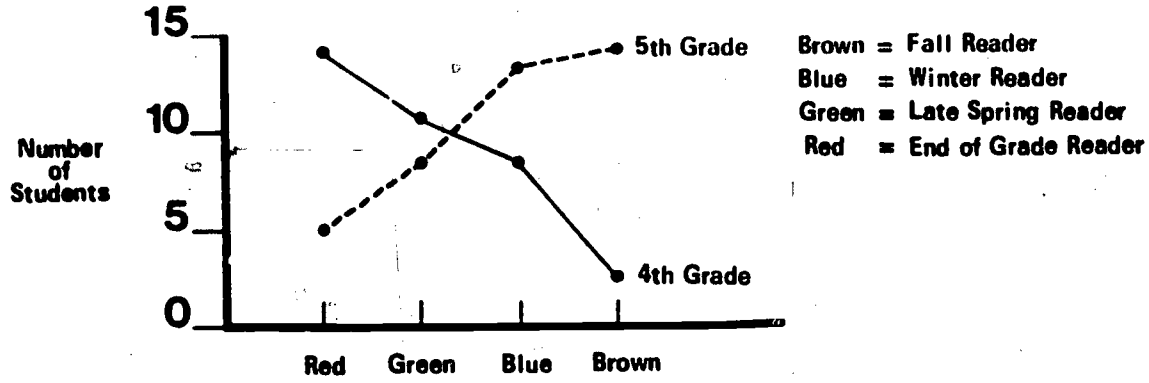
4th-10th Graders in the District One Through Four Years



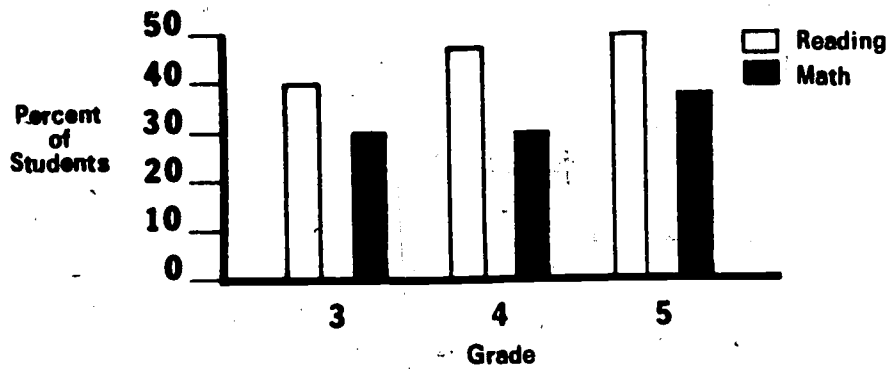
Fall and Spring Achievement Scores of District Students of Different Ethnic Groups



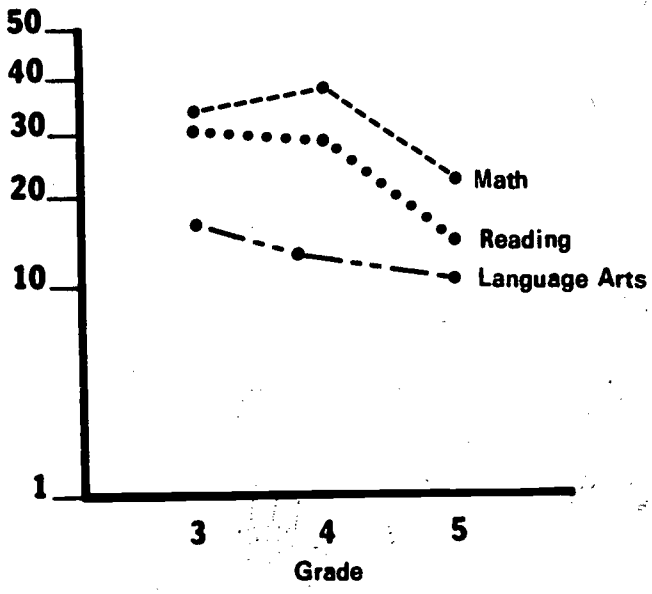
Dominant Languages of District Students



Number of Students at Different Reading Levels in the Curriculum Series (February, 1982)



Percent of Students Mastering the Basic Reading and Math Objectives for Their Grade (June, 1982)



Percentile Scores of Students in Grades 3-5 in Reading, Math and Language Arts

PLANNING, IMPLEMENTING AND EVALUATING SOLUTIONS

Needs assessment activities formally end with the statement of identified needs and priorities. If district activities ended here, however, the needs assessment would be useless. Needs assessment is only one aspect of a program improvement cycle depicted in Figure 3.

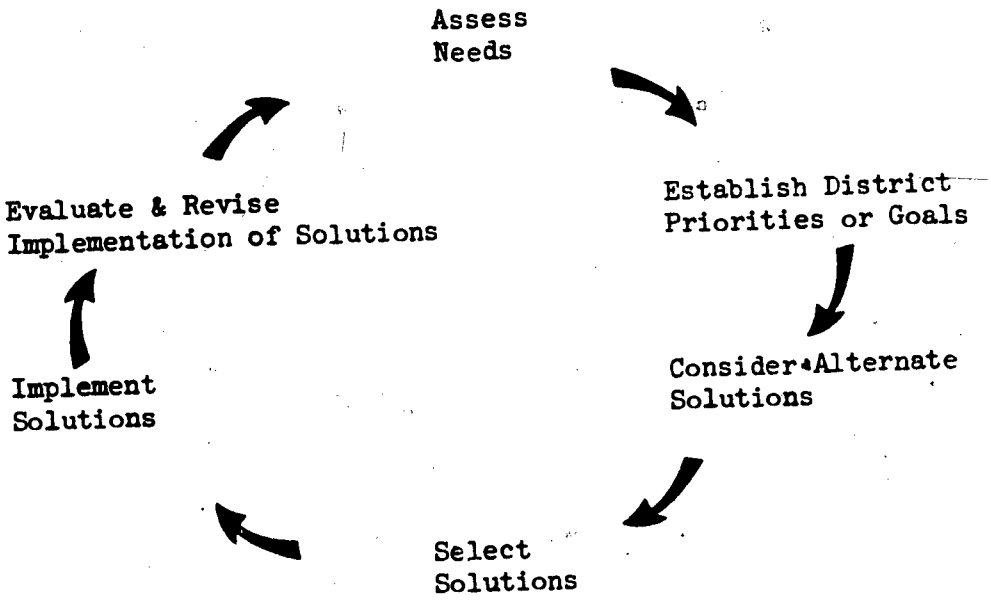


Fig. 3 The needs assessment cycle

The needs assessment, then, should result in specific district goals that have been developed to address high-priority needs. These goals should provide direction when considering available solutions. Once needs and goals are established, district staff should creatively examine alternative ways of meeting the goals. While staff maintain responsibility for finding workable solutions, meetings with parents, other community members and teachers can help generate or select the most feasible options.

At this point, brainstorming is ideal. One way of investigating creative ideas is to decide how each need or goal might be met given several different budget levels. A list of solutions for each budget level could be generated. The following list depicts one district's solutions for the goals of improving students' attitudes toward math.

Low budget solutions:

Use staff meetings to share "fun" math activities and worksheets.

Involve more activities that apply math to real life.

Have students develop a schoolwide math fair as part of class activities.

Help community library emphasize math-oriented books and games.

Send parents a list of commercially available math games.

Recruit volunteers to tutor students in math.

Medium budget solutions:

Buy additional math resource materials for teachers.

Develop a two-day inservice on improving math attitudes.

Buy several computerized math toys for each classroom.

Develop parent involvement program for math activities at home.

High budget solutions

Buy computer-assisted instruction system.

Release two full-time teachers to develop math attitude materials and help teachers use them.

Buy new Math Is Fun book for each child in the district.

Develop resource room of fun math activities.

Hire tutors to help students with math work.

Solutions often go beyond the school itself. Community involvement should be considered. In addition, development of immediate, short-range and long-range solutions may increase options available to the district. Table 6, a hypothetical district's solutions for a goal of improving students' readings in grades 4-6 are shown below.

TABLE 6
SAMPLE SOLUTIONS WORKSHEET

	SCHOOL-BASED SOLUTIONS	COMMUNITY-BASED SOLUTIONS	JOINT SCHOOL AND COMMUNITY SOLUTIONS
Immediate Solutions	Diagnosis of reading difficulties Every teacher a reading teacher	Tutors and Volunteers	
Short-range Solutions	New texts	Increased library assistance to children aged 9-12	
Long-range Solutions	Inservice for teachers	Continuing tutoring program in the schools	Increased valuing of reading ability Expand library

When developing solutions, review the initial needs assessment data. Results of family studies or key informant interviews can be very enlightening. For example, increases in reading vocabulary and comprehension may have become major district goals. There are many available solutions to these needs. For instance, one in depth interview included the observation that reading was a problem mainly because there was little reason to read and there were few, if any, reading materials in the home. This suggested that a program be developed to give children a reason to read or to encourage parents to have reading materials in the home.

Such a program may be entirely different from the typical school reading program; it would serve to enrich any reading program.

All of the needs assessment solutions should be considered in terms of their probable success, feasibility in the district and cost. The cost of the solution must be reconciled with its priority in the district.

After solutions are considered and the best options are selected, the district must then start implementing them. Implementation may occur over one or several years. The needs assessment data for one year provide the base for measuring the success of future programs. If specific needs are addressed, the district should compare the results of future needs assessments or evaluations with the previous needs assessment results. This allows staff to monitor success in meeting needs or changes in needs.

For example, a needs assessment might show that fourth through sixth graders are low in reading achievement. Implementation of revised reading instruction procedures (perhaps a new curriculum, better coordination between third and fourth grade or increased time spent on reading) is expected to increase reading achievement. Future needs assessments, or a specially planned evaluation study, can check student progress by comparing new data to the original needs assessment results. Over time, if revisions are successful, reading at these grade levels will cease to be a major concern and district resources can be focused on other needs.

Conducting your needs assessment, analyzing your findings, implementing solutions--the success of all these activities depends on the cooperation of the various people that are involved with them. Dealing with people effectively and other political implications of a needs assessment is the subject of the last section.

POLITICAL IMPLICATIONS OF A NEEDS ASSESSMENT

Almost all activities involving groups of people have political implications. A needs assessment is no exception, since it can affect school districts, their patrons and other members of the community. Let's take a look at the kinds of reactions your needs assessment will elicit. The figure below shows the range of response.

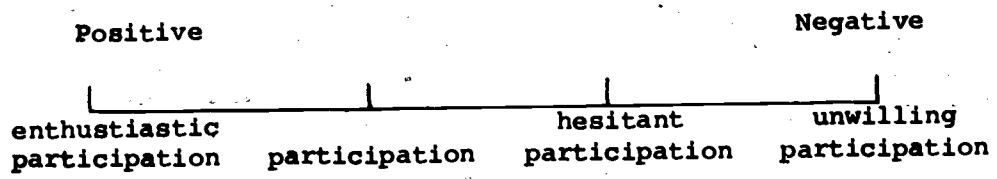


Fig. 4 The range of responses

Those on the positive end of the scale tend to view needs assessment as a valuable gauge to assess public opinion and public participation.

Referring to Figure 4, "enthusiastic" participants seem to be sincerely oriented to total community involvement. They understand the value of grassroots participation and make use of information from a variety of sources. This group feels they can learn from both sympathetic and critical feedback.

"Participants" tend to go along with a needs assessment, mainly because it is part of their job or duty. They take a "wait and see" attitude concerning the utility of a needs assessment. Often they are concerned about the expense or time involved as compared to the eventual usefulness of needs assessment results.

"Hesitant" participants tend to view a needs assessment as interference with elected or assigned positions. They may feel needs assessments are expensive and that respondents may not have any real knowledge about the issues. They may also be concerned that results will conflict with district contracts with unions or that they will question the rationale of previously committed resources.

"Unwilling" participants see the needs assessment process as undermining the decision making power of school personnel. Curriculum directors, administrators and educational leaders may find it difficult to deal with needs assessment results that run contrary to their own opinions or perceptions of education. New information or "maverick" thinking may threaten their leadership.

Generally, the authors have found that prevailing opinion is on the positive end of the scale. Those included in surveys have been pleased that their opinions were sought and considered and educational leaders have found the additional information helpful. In some cases, needs assessment results have provided a mechanism for documenting support and enthusiasm for new directions in education. Needs assessments can also change participants' perceptions of each other.

Administrators, for example, have voiced surprise that needs assessment respondents were so aware and concerned about educational decisions and practices.

Initially, teachers are interested and usually attend to the educational needs that have been identified. Corresponding changes in curriculum and teaching strategy are often made. However, repeated annual assessments resulting in the identification of the same or similar needs may cause teachers to feel unsuccessful in meeting needs. They may become discouraged and start to discredit the needs assessment process.

Members of the community who participate in annual needs assessments also need feedback on reults of the study and on any changes that have been implemented as a result of the findings.

Community decision makers at times may become discouraged with needs assessments as they find that past problems might still be an issue with some community members. Those with long memories, unsatisfied ambitions and frustrations with community actions may express dissatisfaction with the process. They may perceive that some needs are yet unfulfilled.

To maximize the number of "enthusiastic" participants in your study, it might be helpful to keep in mind certain guidelines.

The attitude of those administering the needs assessment is very important as participants will take their cues from those "in charge." A positive attitude is particularly important for those who will be in direct contact with participants. If a researcher has an "I want to learn" attitude, respondents will feel that they have been "listened to" and that their opinions have value. Surveys or questionnaires which include open-ended space for comments would have a similar positive effect.

Implementation of programs to meet identified needs is tacit evidence that the district trusts the information distilled from community input. Keep in mind that program implementation must be accompanied by feedback to the educational partners. The feedback should report the needs identified and the programs designed to meet the needs.

In the event of limited resources, feedback is especially important to help communmities determine priorities and their respective level of funding.

If an assessment indicates a change of need, implementation problems can arise. It is important to maintain dialogue with the community about changes in perceived needs and resulting implementation. Needs

assessments can also reflect or pick up controversies or problems that are not related to students' learning requirements--political dissension perhaps. Focusing participants' attention on the goal of the needs assessment can help avoid this problem.

Educational needs assessments that actively involve school district patrons often gain their support. This support is easily lost, however, if identified needs are consistently not met.

When solutions to perceived needs cannot be implemented immediately, because of time constraints, budgetary problems or other reasons, participants should be informed of the situation and of any ensuing progress.

In summary, needs assessments can be useful for planning and monitoring district programs. They can provide a basis for community discussions and a defense for district decisions. Needs assessments vary considerably in comprehensiveness, objectives and cost. A variety of methods may be used to update school information at a reasonable cost or to trouble-shoot suspected problems. In short, a well-planned needs assessment is a valuable tool--one that is poorly thought out can be an expensive and frustrating experience for everyone. We hope the suggestions in this book will help you plan a flexible, well-designed assessment which meets your district's needs.

APPENDIX A

SAMPLE QUESTIONNAIRE ITEMS

SAMPLE QUESTIONNAIRE ITEMS

Finding the right items for a questionnaire can be difficult. In this section we provide some sample items and describe how to use them to develop your own questionnaire. Two kinds of items are included. Pages 125 through 137 contain items for teachers. Items on pages 139 through 148 are for parents. These items focus on students' reading, math and language arts skills. You will probably need procedures to develop other kinds of questionnaires, also. The following steps have been used in several districts who have done this.

1. Identify a group of teachers, parents or administrators to help generate the questionnaire.

2. Copy the items on stiff paper and make them into cards. Each card should contain one item. Make one set of cards for each person who will help with the questionnaire.

IN ONE OR MORE GROUP MEETINGS

3. Go over the need areas to be addressed by the questionnaire and explain how the questionnaire will be used in the needs assessment.

4. In the meeting, have people review the items for clarity and importance. Revise items that are unclear. Eliminate items that are unimportant or inappropriate.

5. If you will have different questionnaires (or sections of the questionnaire) for different grade levels, decide appropriate grades to cluster. Different types of questions are often appropriate for different grades.

6. Review items for appropriate grade ranges. Write the grades the items are appropriate for on the cards.

7. Match items to the types of needs the questionnaire is to address. Each questionnaire (or grade cluster) should have at least two or three items for each type of need. Generate new items as needed. (Analysis of the questionnaires is easier if the same number of items address each need.)

AFTER THE MEETING

8. Modify the item format to make the questionnaire easy for respondents to understand and complete. Put the items into a draft questionnaire. See pages 68 through 71 of this book for suggestions on questionnaire development.

9. Return the draft questionnaire to the committee for review and field testing.

10. Revise the questionnaire.

Two questionnaires for parents, developed from these items using this process, are shown on pages 139 through 144.

TEACHER QUESTIONS

1. The percent of students who have difficulty writing a complete sentence.

   Less than 15% _____

   Less than 30% _____

   More than 30% _____

2. The percent of students who have difficulty using correct mechanics of writing (punctuation, capitalization, etc.)

   Less than 15% _____

   Less than 30% _____

   More than 30% _____

3. The percent of students who have difficulty copying from the board, a book or another paper.

   Less than 15% _____

   Less than 30% _____

   More than 30% _____

4. The percent of students who have difficulty writing in cursive form.

   Less than 15% _____

   Less than 30% _____

   More than 30% _____

5. The percent of students who have difficulty spelling well enough for papers to be read or understood.

   Less than 15% _____

   Less than 30% _____

   More than 30% _____

6. The percent of students who have limited use of correct grammar.

   Less than 15% _____

   Less than 30% _____

   More than 30% _____

7. The percent of students who have difficulty expressing thoughts in writing.

   Less than 15% _____

   Less than 30% _____

   More than 30% _____

8. The percent of students who have difficulty with oral expression.

   Less than 15% _____

   Less than 30% _____

   More than 30% _____

9. The percent of students who have difficulty using the dictionary.

   Less than 15% _____

   Less than 30% _____

   More than 30% _____

10. The percent of students who have difficulty alphabetizing.

    Less than 15% _____

    Less than 30% _____

    More than 30% _____

11. The percent of students who have difficulty expressing in a summary something which has been read, heard or seen.

    Less than 15% _____

    Less than 30% _____

    More than 30% _____

12. The percent of students who have difficulty reading at expected grade level.

    Less than 15% _____

    Less than 30% _____

    More than 30% _____

13. The percent of students who have difficulty answering simple questions.

Less than 15% _____

Less than 30% _____

More than 30% _____

14. The percent of students who have difficulty sounding out words.

Less than 15% _____

Less than 30% _____

More than 30% _____

15. The percent of students who have limited sight vocabulary.

Less than 15% _____

Less than 30% _____

More than 30% _____

16. The percent of students who have difficulty in reading orally.

Less than 15% _____

Less than 30% _____

More than 30% _____

17. The percent of students who have difficulty determining the main idea of written material.

Less than 15% _____

Less than 30% _____

More than 30% _____

18. The percent of students who have difficulty locating answers--cannot read for information.

Less than 15% _____

Less than 30% _____

More than 30% _____

19. The percent of students who have difficulty understanding/mastering abstract concepts.

Less than 15% _____

Less than 30% _____

More than 30% _____

20. The percent of students who have difficulty distinguishing letters or words which are visually similar.

Less than 15% _____

Less than 30% _____

More than 30% _____

21. The percent of students who have difficulty interpreting meanings of words (literal vocabulary).

Less than 15% _____

Less than 30% _____

More than 30% _____

22. The percent of students who have difficulty interpreting implied meanings in written materials.

Less than 15% _____

Less than 30% _____

More than 30% _____

23. The percent of students who have math skills lower than their grade level.

Less than 15% _____

Less than 30% _____

More than 30% _____

24. The percent of students who have difficulty naming the place value of digits up to millions.

Less than 15% _____

Less than 30% _____

More than 30% _____

25. The percent of students who have difficulty solving simple word problems using addition and subtraction skills.

Less than 15% _____

Less than 30% _____

More than 30% _____

26. The percent of students who have difficulty making change--are unable to add or subtract with money.

Less than 15% _____

Less than 30% _____

More than 30% _____

27. The percent of students who have difficulty determining coins and bills necessary to make amounts up to $10.

Less than 15% _____

Less than 30% _____

More than 30% _____

28. The percent of students who have difficulty with multiplication facts through 12.

Less than 15% _____

Less than 30% _____

More than 30% _____

29. The percent of students who have difficulty multiplying numbers by zero.

Less than 15% _____

Less than 30% _____

More than 30% _____

30. The percent of students who have problems seeing division as the reverse of multiplication.

Less than 15% _____

Less than 30% _____

More than 30% _____

31. The percent of students who have difficulty computing single digit division with up to four digit dividends.

Less than 15% _____

Less than 30% _____

More than 30% _____

32. The percent of students who have difficulty computing averages.

Less than 15% _____

Less than 30% _____

More than 30% _____

33. The percent of students who have difficulty ordering, comparing, renaming or representing fractional numbers.

Less than 15% _____

Less than 30% _____

More than 30% _____

34. The percent of students who have difficulty using standard English measurement.

Less than 15% _____

Less than 30% _____

More than 30% _____

35. The percent of students who have difficulty reporting time orally from a clock face.

Less than 15% _____

Less than 30% _____

More than 30% _____

36. The percent of students who have difficulty reading or writing time.

Less than 15% _____

Less than 30% _____

More than 30% _____

37. The percent of students who have difficulty multiplying by two or more digits.

Less than 15% _____

Less than 30% _____

More than 30% _____

Teacher Survey

K-1

Instructions: Think about the lower third of your class. To what extent are they having difficulty in the skills listed. Please check the appropriate column, with #4 as greatest difficulty.

Skills	1	2	3	4
1. Speaking in complete sentences				
2. Understanding basic concepts				
3. Naming letters and numerals				
4. Skipping				
5. Catching a large object				
6. Balancing on a beam				
7. Manipulating small objects with both hands (tying shoes, folding)				
8. Coloring within lines				
9. Copying letters or numerals				
10. Following simple directions (1 part, 2 part, 3 part)				
11. Listening without interrupting while maintaining eye contact				
12. Listening to and retelling a story in sequence				
13. Matching and identifying beginning, middle and ending sounds				
14. Matching color, shape and size				
15. Naming, matching and sequencing letters and numerals				
16. Matching upper and lower case letters				

Comments:

Teacher Survey

Grades 2-3

Instructions: Think about the lower third of your class. To what extent are they having difficulty in the skills listed. Please check the appropriate column, with #4 as greatest difficulty.

Skills	1	2	3	4
1. Sight vocabulary				
2. Understanding the meaning of words				
3. Recalling facts				
4. Recalling the sequence of events from printed material				
5. Oral reading				
6. Sounding out words				
7. Adding and subtracting				
8. Number sequence				
9. Solving simple story problems using addition and subtraction skills				
10. Using money in story problems				
11. Telling time				
12. Identifying coins and bills				
13. Following oral directions				
14. Recalling a story				
15. Expressing thoughts orally				
16. Speaking in complete sentences				
17. Forming letters				
18. Writing words legibly				

Teacher Survey - Continued (2-3)

Skills	1	2	3	4
19. Writing a complete sentence				
20. Expressing a complete thought in a written sentence				
21. Using correct mechanics of writing (punctuation, capitalization)				
22. Using correct oral grammar				
23. Spelling assigned words				
24. Spelling correctly in written work				
25. Alphabetizing				
26. Using table of contents to find a story				

Comments:

Teacher Survey

Grades 4-6

Instructions: Think about the lower third of your class. To what extent are they having difficulty in the skills listed. Please check the appropriate column, with #4 as greatest difficulty.

Skills	1	2	3	4
1. Sight vocabulary				
2. Interpreting meanings of words				
3. Determining the main idea of written material				
4. Locating answers (reading for information)				
5. Sounding out words				
6. Reading orally				
7. Multiplying or dividing				
8. Fractions				
9. Solving simple story problems using addition and subtractions skills				
10. Solving simple story problems using multiplication and division skills*				
11. Making monetary change				
12. Using standard English or metric				
13. Paying attention when others are talking				
14. Following oral directions				
15. Answering questions orally				
16. Expressing complete thoughts orally				
17. Handwriting				
18. Writing legibly in daily assignments				

Teacher Survey - Continued (4-6)

Skills	1	2	3	4
19. Writing a complete sentence				
20. Expressing complete thoughts in writing				
21. Spelling assigned words				
22. Spelling in daily written work				
23. Using correct punctuation				
24. Using correct capitalization				
25. Using the dictionary				
26. Using referance materials				

Comments:

PARENT QUESTIONS

1. How often does your child read any of the following at home?

	Often	Some-times	Seldom
Magazines	____	____	____
Newspapers	____	____	____
Comics	____	____	____
Cereal boxes	____	____	____
Books	____	____	____
Maps	____	____	____
Road signs	____	____	____
Advertising	____	____	____

2. How often does your child read for pleasure?

Often Some-times Seldom

3. When your child reads, does he or she sound out words?

Often Some times Seldom

4. Does your child ask you to read to him or her?

Often Some-times Seldom

5. Does your child understand what he or she reads?

Often Some-times Seldom

6. Can your child read simple directions?

Often Some-times Seldom

7. Does your child know the directions of left and right?

Often	Sometimes	Seldom

8. Does your child enjoy any of the following?

	Often	Sometimes	Seldom
Stories	____	____	____
Songs	____	____	____
Poems	____	____	____
Comics	____	____	____
Magazines	____	____	____
Word games	____	____	____

9. Can your child make change at the grocery store?

Often	Sometimes	Seldom

10. Can your child estimate numbers of distance?

Often	Sometimes	Seldom

11. Can your child count to 1000?

Often	Sometimes	Seldom

12. Can your child add and subtract numbers?

Often	Sometimes	Seldom

13. Can your child multiply and divide?

Often	Some-times	Seldom

14. Can you read your child's handwriting?

Often	Some-times	Seldom

15. Can your child spell?

Often	Some-times	Seldom

16. How well does your child succeed in school?

Very Well _____
Good _____
Average _____
Fair _____
Poor _____

17. How well can your child read at home?

Very well _____
Good _____
Average _____
Fair _____
Poor _____

18. Can your child understand what he or she reads?

Very well _____
Good _____
Average _____
Fair _____
Poor _____

19. Can your child read directions?

Very well _____
Good _____
Average _____
Fair _____
Poor _____

20. Can your child make change at the grocery store?

Very well _____
Good _____
Average _____
Fair _____
Poor _____

21. How well can your child add and subtract?

Very well _____
Good _____
Average _____
Fair _____
Poor _____

22. How well can your child multiply and divide?

Very well _____
Good _____
Average _____
Fair _____
Poor _____

23. Can your child estimate numbers and distance?

Very well _____
Good _____
Average _____
Fair _____
Poor _____

24. How well does your child measure?

Very well _____
Good _____
Average _____
Fair _____
Poor _____

25. How well does your child like school?

Very well _____
Good _____
Average _____
Fair _____
Poor _____

26. How well does your child succeed in his or her favorite subject?

Very well _____
Good _____
Average _____
Fair _____
Poor _____

27. How well can your child do his or her homework?

Very well _____
Good _____
Average _____
Fair _____
Poor _____

28. How well can your child spell?

Very well _____
Good _____
Average _____
Fair _____
Poor _____

29. Can you read your child's handwriting?

Very well _____
Good _____
Average _____
Fair _____
Poor _____

30. Can your child talk about a subject in sentences?

Very well _____
Good _____
Average _____
Fair _____
Poor _____

31. How well can your child describe things?

Very well _____
Good _____
Average _____
Fair _____
Poor _____

32. Can your child speak clearly?

Very well _____
Good _____
Average _____
Fair _____
Poor _____

33. Can your child express his or her thoughts?

Very well _____
Good _____
Average _____
Fair _____
Poor _____

34. Can your child speak another language other than English?

Very well _____
Good _____
Average _____
Fair _____
Poor _____

35. Can your child sound out words?

Very well _____
Good _____
Average _____
Fair _____
Poor _____

April, 1982

Dear Parent:

Please take a few minutes of your time to complete the following survey and, upon completion, have your child return this survey to the Resource Center in his or her school by Friday, April 16.

The purpose of the survey is to determine how parents view the academic skills of their children. This information will assist us in writing a proposal for Title I Federal monies which will purchase additional instruction for children requiring an extra academic boost.

Howard Harris
Jacky Hildebrant
Verna Kellar
Sheila Lane
Elaine Miller
Barbara Bradshaw

Prescott Elementary
10410 N. E. Prescott
Portland, Oregon 97220

O = Often

St = Sometimes

S = Seldom

N = Never

Dk - Don't know

My Oldest Schoolage Child	My Second Oldest Schoolage Child	My Third Oldest Schoolage Child	My Fourth Oldest Schoolage Child	My Fifth Oldest Schoolage Child	WRITTEN LANGUAGE
					1. - Can use capital letters correctly.
					2. - Can use periods, commas, question marks and exclamation marks correctly.
					3. - Can use correct grammar in written work.
					4. - Can write a complete sentence.
					5. - Can use questions (Can you ride a bike?), exclamations (The bike hit a bump and dumped me!) and sentences (I can ride a bike) in his or her writing.
					6. - Can indent and watch margins when writing a paragraph.
					7. - Can write a paragraph (five sentences long) on one topic.
					8. - Can write two paragraphs on the same topic.

Thank you for your time!

TITLE I PARENT SURVEY

My oldest schoolage child is _____ years old and in _____ grade.

My second schoolage child is _____ years old and in _____ grade.

My third schoolage child is _____ years old and in _____ grade.

My fourth schoolage child is _____ years old and in _____ grade.

My fifth schoolage child is _____ years old and in _____ grade.

Use the following code to indicate how you view your children.

O = Often
St = Sometimes
S = Seldom
N = Never
Dk = Don't know

MATH

My Oldest Schoolage Child	My Second Oldest Schoolage Child	My Third Oldest Schoolage Child	My Fourth Oldest Schoolage Child	My Fifth Oldest Schoolage Child	
S	O	St	-	-	Example: Can ride a skateboard.
					1. - Can count items.
					2. - Can add numbers.
					3. - Can subtract numbers.
					4. - Can solve word problems.
					5. - Can tell time.
					6. - Can count money.
					7. - Can multiply numbers.
					8. - Can divide numbers.
					9. - Can solve fraction problems.
					10. - Can solve decimal problems.

O = Often

St = Sometimes

S = Seldom

N = Never

Dk = Don't know

My Oldest Schoolage Child	My Second Oldest Schoolage Child	My Third Oldest Schoolage Child	My Fourth Oldest Schoolage Child	My Fifth Oldest Schoolage Child	
					ORAL LANGUAGE
					1. - Can use correct grammar when speaking.
					2. - Can answer questions beginning with who, what, when or where. (Facts)
					3. - Can use the right word to express what he or she wants to say. (Vocabulary)
					4. - Can follow directions he or she hears. (Interpret language
					5. - Can stay on the subject when telling about an event (Relevant sentences)
					6. - Can tell about an event (vacation, a TV show, a friend's visit, etc.) quickly and efficiently. (Summary)
					7. - Can use his or her own words when telling about a new idea or thought. (Paraphrase)
					8. - Can write an outline for a speech. (Organization)
					9. - Can tell about an event in a logical order. (Sequence)
					10. - Can speak with expression. (Voice technique)
					READING
					1. - Likes to read.
					2. - Can sound out words when reading. (Word attack skills)
					3. - Can understand what he or she reads. (Comprehension)
					4. - Can say the sounds of the letters. (Symbol-sound correspondence)
					5. - Can determine the meaning of the words he or she reads. (Vocabulary)
					6. - Can tell what happens first, second, ..., last in a story. (Sequence)
					7. - Can make up or create a plausible new ending to a story. (Inference)
					8. - Can tell the main or major idea of a story in a sentence or two. (Main idea)

APPENDIX B

SAMPLE NEEDS ASSESSMENTS

A SAMPLE NEEDS ASSESSMENT USING RECORDS ANALYSIS

In other needs assessment approaches there may be more freedom to tailor information-gathering to specific needs assessment purposes. Records analysis is a situation in which one can use available materials imaginatively. Often, the records at hand can adequately address the major purposes of the study. Additional information may be collected to "fill out" or to strengthen needs assessment findings.

An imaginative case of pulling together diverse sources of records information for a target population is shown by Dr. Kan Yagi's recent needs assessment for the Portland Public Schools. Need was defined as the discrepancy between what was observed for the normative population (in this case school children in the district) and that which was observed for target school children. A composite profile of target students' needs was developed by selecting four kinds of information available in school records and supplementing this information with a telephone survey of target households.

Records were examined for information on attrition, discipline problems, socioeconomic status and academic achievement. Social-psychological needs were tapped in the telephone survey. Attrition information consisted of three types of data available in school records. They first used "leave codes" which indicated when students transferred to another public school within the district, transferred to a nonpublic school within the district, moved out of the local school district, quit school after compulsory attendance age, were issued work permits, graduated or left school for other reasons.

Data were tabulated for target students and for all students by grade. Target students made up 4.5 percent (N=77) of the total student status changes. These 77 status changes represented 10 percent of the total target student population. The needs assessment documented that the percentage of enrollment status changes for target students was double that for the general student population. Target students' patterns of leaving school did not seem to differ from those of the district as a whole.

The second attrition indicator assumed that the number of students enrolled in each grade (K-12) should be approximately equal, given no dropouts. For the total district, the average enrollment for grades 1-8 was about the same as for secondary grades 9-12. However, for target students, the average number of students for grades 1-8 (N=74) was appreciably higher than for grades 9-12 (N=45). These findings indicated that target students dropped out at the secondary level at a rate much higher than that for the district in general. In particular, a much lower rate of enrollment was found for target students in grade 12.

The third indicator of attrition was based on district data identifying seniors still enrolled at the end of the year. The data were examined to see if percentages differed between target students and district students in general.

The percent of active target seniors who graduated did not significantly differ from the percent of all district active seniors who graduated. However, only 51.4 percent of the target graduates were enrolled as seniors during the fall. In contrast, for the district as a whole, graduates represented 84.0 percent of the seniors enrolled in the fall. These data indicated greater attrition for target students than for district students in general.

Suspension records on the number of students suspended by ethnic group were examined as a measure of alienation. Data indicated that the number of target group suspensions

was about equal to that of district students in general. Target students represented about 1.3 percent of the total student population. Target student rates of suspensions (determined by the number of suspensions divided by the total student population) were seven percent for 1977-78 and nine percent for 1978-79. This compared to seven percent for 1977-78 and six percent for 1978-79 for the total student population. When examined by ethnic group, however, the target group had the second highest rate of suspensions of the five ethnic categories examined (Indian, Caucasian, Black, Asian and Spanish). Dr. Yagi suggested the higher rates of suspensions found for the target group were the result of frustration and aggressive behavior.

Socioeconomic status was addressed by looking at district records indicating the number of Portland students, ages 5-13, who were in welfare families. About 25 percent of all students in this age range were in welfare families. Dr. Yagi matched the addresses and names on the welfare list and those on a target student mailing list. He found that about 19 percent of target student families were on the welfare list. This estimate was conservative since the welfare list included only 5-13 year old students. Adjustments to the estimate brought the percentage up to the same for the total district. Dr. Yagi also noted that welfare may not be the best estimate for socioeconomic status because many families do not take advantage of welfare for a variety of reasons.

Reading and math achievement records gave evidence concerning the academic achievement profile of target students versus district students. Scores for Indian and all district students from fall 1977 to spring 1979 were examined grade by grade. The results found large discrepancies between target and district students, supporting minority program administrators' feelings that as target students progressed through the grades they began to lose interest and motivation. As a result, reading achievement scores suffered. The picture was not so

clear-cut for math achievement. It was determined that more data would be needed to document the trend of performances across the grades.

Emotional indicators rounded out the assessment picture. They included looking at arrests for drunkenness, adoption and foster child data available from various sources for the target group as compared to the general population. It was determined that the target group made up less than one percent of Portland's population but accounted for almost 19 percent of arrests for drunkenness. Children's Services Division reported that, in a one-year period, 19 of 225 children placed for adoption were of the target group, with only five being placed with families of the same background. Other records showed that target children were placed in foster homes at a per capita rate six times higher than that for the general population. These sources of information indicated target students might have a high potential for emotional problems.

The final step in examining emotional indicators was a telephone survey of target population households. The plan was to contact as many households as was possible. A total of 400 households was identified but responses were usable from only 54.

Survey findings indicated that parents most frequently thought that target students lacked knowledge about their heritage, lacked social activities with other target group members, abused alcohol and drugs, lacked knowledge of possible careers and occupations and dropped out of school prematurely. Other perceived needs for target students were unstable home lives, poor self images and not attending college. Least frequently mentioned needs were school and home discipline problems, school attendance and low participation in school sports and extracurricular activities.

The outcome of these uses of records analysis was a narrative report documenting the needs of target students by

comparing them to the general population of district students. By combining sources of information in an imaginative way, this needs assessment was able to pinpoint needs which consistently emerged from different data sources as well as to give a much fuller picture of target group needs than would be available from a single information source.

A SAMPLE KEY INFORMANT NEEDS ASSESSMENT

In 1981 a series of assessments were planned to assess the educational needs of a specific target group throughout the state. Dr. Barbara Hunt of the Oregon Department of Education designed a strategy to examine school-related, community-related and school-community related needs for these children.

Experienced in conducting needs assessments in local school districts, she started thinking about applying the same techniques that had worked before. Immediately, she began to think about problems that might arise. Techniques that had been used in the past included surveying the population. Without first-hand knowledge of the population, she questioned her ability to develop appropriate questionnaire items. There was also evidence that the 1970 Census of Population had not had much success using surveys to gather information on the target group. The low response rate of the target group population tended to undermine the accuracy of the data collected. Furthermore, given the group's characteristics, surveys by persons outside the community would have lacked credibility with representatives of the group.

A second possible approach was to obtain objective data on educational needs from records analysis. This was ruled out because school districts do not generally compile achievement data according to target group status. Some districts do collect dropout data identifying larger subgroups in the student population. Dropout data might serve as a partial indicator but would not directly address educational needs of students. Either of these approaches presented potential problems that would invalidate the needs assessment findings.

Dr. Hunt decided to visit several communities to familiarize herself with the types and range of educational needs and to locate information sources through schools. The information she needed began to pour in. Members of the school district and community were all concerned about education. They knew who was knowledgeable about education and educational needs and appeared eager to cooperate. Above all, they agreed on the need for an indepth assessment of the educational needs of the students. The target group members were keenly interested in improving education for their youth and the school districts were sincerely interested in educating the children. The wealth of information in the community, the positive attitudes and willingness to cooperate created enthusiasm and momentum.

Based on this response, she selected the Key Informant method. The next step was to identify key informants by asking community leaders and school personnel to name persons active in and knowledgeable about education in their community. Representatives from both the target group and other school populations, parents, the school board, elected community leaders, students and the school were identified. Their indepth responses were obtained on two open-ended questions. Probes helped to put the information in context and clarify its meaning. The questions were:

1. What are the good things happening in the education of children here now?

2. What are the educational needs of the children now as you see them?

Key informants were asked the questions individually or in small groups. Their responses were written down verbatim. Small groups were particularly responsive. One comment would often trigger other members' responses, bringing up associated needs and amplifying critical ones. The sessions lasted from one to four hours, often resulting in 80 or more needs being listed.

Compared to the written survey questionnaires used before, this method collected a wealth of indepth useful information. Where written questionnaires tend to require a yes, no or rating response, the key informant interview technique collected much more information.

The key informants had been selected by asking community leaders and school personnel to name people who were active and knowledgeable about education. The information they contributed reflected educational needs from many perspectives and identified many elements of society that had an impact on children learning in school.

The needs were grouped into economic, social, intellectual, emotional or physical, written up and returned to the informants. The informants reviewed and revised the listing of needs and prioritized them for use in planning solutions.

A SAMPLE NEEDS ASSESSMENT USING GROUP SURVEYS

In September 1979 the Northwest Regional Educational Laboratory, in collaboration with the Lincoln County School District of Oregon, was awarded a contract to design a plan for a national demonstration of educational equity. Part of this effort was the development and conducting of a needs assessment to identify districtwide patterns of attitudes toward and experiences in the area of sex equity. The district used this opportunity to collect information that would allow comprehensive educational planning based on students' needs as perceived by students, educators, support staff, the school board and the community. Results directed the district to develop plans and programs for students' education that included more awareness on sex equity laws and issues for community and noninstructional staff, more nonsexist teaching strategies and curriculum materials, encouraging students to enroll in nontraditional electives and more career information for students. Based on the needs assessment findings, four demonstration sites were selected to implement the national demonstration of educational equity.

The first step was to select the populations and methods for the needs assessment. Populations were selected whose knowledge and opinions would be taken into consideration in designing and developing a comprehensive sex equity program. Students, teachers and teacher aides, administrators, classified staff, local school board and local school committees, local community representatives and recent graduates were surveyed. The second step was to

choose topic areas to be covered in the surveys. The list of topic areas included:

1. Physical and extracurricular activities
2. Careers and employment
3. Recognition
4. Student-staff interaction
5. Peer interaction
6. Equity programs and materials
7. Electives

The third step was the development and pilot testing of questionnaires. Evaluation and measurement specialists from the Northwest Regional Educational Laboratory initially developed over 800 items for the 11 audiences to be surveyed. These items were reviewed by the projects' Resource Board and Community Advisory Committee.

Surveys were written for each group involved in the needs assessment. Student questionnaires were developed to correspond to the grade level at which students were in and included the writing of alternate forms for students in grades 6 and up. Students, teaching staff, administrators, classified staff, local school board and committees, community representatives and recent graduates surveys were formulated keeping in mind their potential input concerning the needs assessment. Students were questioned on their perceptions of acceptable male and female careers. Each participant group was questioned on several different but related topics as well as on topics selected specifically for that group. Teachers were asked if they would like to learn some specific nonsexist teaching behaviors and strategies to use in interacting with students. The school board was questioned as to whether boys' and girls' sports should receive the same attention and resources. Classified staff were asked about their perceptions of the male and female distribution of district jobs. The community was asked how much support sex equity (Title IX) had in the community.

Questionnaires were completed by all teachers and aides as well as students in grades 3, 6, 8, 10 and 12 in every district school. Administrators completed questionnaires during a districtwide meeting. A questionnaire was distributed to a sample of all classified staff in all schools. Local school board and school committee responses were given surveys at a local school board meeting. Telephone interviews were conducted to get the views of local community representatives; a questionnaire was distributed to a sample of community service members and a brief questionnaire was printed in the local paper. Finally, a questionnaire was mailed to recent graduates of the four district high schools.

Needs assessment findings. Students agreed that male and female students perceived some areas differently, though most agreed with the principles of sex equity. Male students were found to be more likely to adhere to sex role stereotypes than were female students. Both tended to see certain school activities and electives as primarily male or female oriented. They felt there should be more athletic activities for both sexes. Students did not believe that they treated each other as equals.

Teachers and administrators were supportive of sex equity in school activities and wanted to learn more nonsexist teaching strategies and obtain more sex equity curriculum materials. They did not feel they needed more inservice awareness training. They believed that male and female students received equal recognition at school, by staff, by each other and in athletics and extracurricular activities. Administrators tended to see some differences in student-staff interactions and recognition received by male and female students.

School board members, classified staff, community representatives and recent graduates felt that sports activities should receive equal emphasis for both sexes but that they should not be coeducational. They thought that

there may well be differences in student-staff interactions, peer interactions and recognition received by the two sexes. However, a large proportion of respondents thought that too much time and effort were spent on sex equity issues. The needs which emerged across most audiences included:

1. More information about sex equity laws and issues at an awareness level for community and noninstructional staff (teachers, administrators, school board, classified staff and community members).

2. More specific information about nonsexist teaching materials and strategies for teachers and administrators (teachers and administrators).

3. More career information for students (teachers and administrators, school board, classified staff and community members).

4. More encouragement for students to take nontraditional elective courses. Some students, however, noted in their responses opposition to any kind of mandatory quota system. They felt students should take electives which interested them (students, teachers and administrators, school board members, classified staff and community members).

PILOT OF NEEDS ASSESSMENT METHODS

When Doris Calkum, Title I District Coordinator for North Clackamas School District, looked at the results from their previous year's needs assessment, she realized the district had a real problem on its hands. The district had collected data on students' achievement from parents, teachers, students and school achievement records. But when results were examined, there seemed no way to consolidate findings into a form useful for planning next year's Title I program. So she, Dr. Hunt from the Oregon Department of Education and Dr. Hiscox from the Northwest Regional Educational Laboratory's Technical Assistance Center decided to redesign the district's needs assessment approach based on methods outlined in this book. Their efforts resulted in the development of a composite needs portrait providing useful planning information for next year's Title I program. Preliminary feedback from teachers has been extremely positive. Comments have generally been along the line of "Yes, it helps in planning--it gives us the capability to make better decisions because of the increased accuracy and specificity of the information."

The initial step was to identify and develop a listing of major and minor subject and instructional areas necessary for the needs assessment. Reading (phonics analysis, vocabulary and comprehension), math (computation and concepts/application) and language arts (language mechanics, language expression, spelling and reference skills) were chosen.

A battery of test items for each major and subarea were developed by Dr. Hunt and Dr. Hiscox. Teachers from North Clackamas schools were asked to come to a central meeting.

There they were separated into groups based on their teaching areas of experience and asked to select questions for each area and subarea addressing their students' educational needs. Parents were contacted through Parent Advisory Groups and similarly asked to select survey items reflecting their concerns. The items were keyed to one another to maximize the relationships between teacher, parent and achievement items. The next step was to select two to four items keyed to each subject area by students' grade level. Then Doris Calkum developed teacher and parent surveys using these items. Children delivered surveys to parents and returned them to classrooms. Incentives--free time, point systems, special priority--helped to increase survey response rates to 40-90 percent.

The results from the parent survey and teacher survey were put together with existing district information on Title I student achievement (CAT scores). A composite needs assessment profile was developed by tallying responses and achievement information, deciding how to weight the various types of information in the analysis, and then adding the weighted scores together in a composite worksheet to identify patterns of students' educational needs. Objective information (CAT achievement scores) was weighted two times as heavily as was subjective information (parent and teacher surveys).

Few teachers had looked at subareas the previous year. This year much more information was collected by teachers on specific areas of major achievement and results reflected this effort. Different patterns emerged for grades K-1, 2-3, and 4-6. For grades K-1, three principal areas of program emphasis emerged. First in importance was auditory perception, then language development, and last, fine motor skills. The previous year language development had been first, auditory perception second, and a tie between visual perception and fine motor skills for third place.

Preliminary results for grades 2 and 3 and 4-6 show a shift from the previous year's emphasis on reading to language arts, and to a lesser degree, math, especially in the areas of problem solving, reasoning and application. Grades 2-3 showed some need for more work on reading skills but the main emphasis has shifted to language arts and math from the previous year. Because the district's main emphasis had formerly been on reading, the Title I District Coordinator has decided to incorporate language arts into the reading program for a smoother transition. Math problem solving, reasoning and application emerged as areas for program planning for grades 2-3. Although these also emerged as areas of need in grades 4-6, math computation was of even more importance than in the earlier grades. The changes from last year's results may be due in part to the use of more accurate achievement tests and the more specific questions answered by teachers and parents.

These findings will be taken into account in the planning of the 1982-83 Title I program in the North Clackamas School District. Additionally, a revised student survey which could not be included this year due to time constraints will be added to the 1982-83 needs assessment.

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NEEDS ASSESSMENT FLOW CHART