# Needs Assessment

## *A Valuable Tool for Educators*

**A needs assessment is a systematic process of identifying needs, putting them in order of priority, and devising a plan to deal with them.**

BY PATTI HERRING AND DEBORAH McGILL

Good teachers do not just go through the motions of teaching. They put time and effort into the process because they really want their students to learn and to be able to apply their studies to the real world.

However, they sometimes need help to analyze the needs of their students and to plan strategies for meeting those needs. This article therefore offers some guidelines for tailoring lesson plans to the needs, capabilities, and desires of the target audience, using the required curriculum. We will share some general skills (applicable at the elementary, secondary, college, or university levels) for making expert curriculum and program planning decisions.

Theoretically, a need exists when there is a gap between the way things are and the way you want them to be. Once the need is identified, you can define the necessary goals and objectives to fill it.[1] If more than one need is identified, you will need to arrange them in order of importance.

*A needs assessment* is a systematic process of identifying needs, putting them in order of priority, and devising a plan to deal with them.[2] A technique employed by health educators, it can be applied to a broad range of problems. Typically, needs assessment is useful during planning, implementation, and evaluation.[3] It can be easily adapted for use at all levels of education (from the classroom to upper management).[4] Whether you are planning topics for classroom instruction; conducting seminars for parents, teachers, staff, or community members; or planning basic educational instruction, needs assessment is essential.[5]

In this context, we need to expand the term to include *instructional diagnosis and analysis*. ***Instructional diagnosis*** means systematically collecting data or information from a variety of educational and community sources. The groups studied could be individual students, a specific class or grade, the entire school, or the community at large, whichever are the focus of the message. This will require an assessment of the learning needs, desires, and educational strengths and weaknesses of the target audience. ***Instructional analysis*** means organizing the collected information to identify and measure gaps between what the target group knows and what its members need to know, determining whether the needs are being met, and setting directions for the future.[6]

Based on his analysis of district-level needs assessment mandated by several states in the U.S., Gay suggests involving a variety of personnel (e.g., teachers, principals, superintendents, and department of education personnel) in the needs-assessment process.[7] However, he cautions that "the utility of the needs assessment process depends to a great degree on the intelligence with which it is applied. If done too carelessly or informally, it will not be of much value; in such cases the results may differ little from what plain common sense would indicate. It can also be 'overdone,' in which case it is neither practical nor cost-effective."[8]

### Conducting an Instructional Diagnosis and Analysis

Before you deal with "needs," you must get to know your target audience. This means identifying such specifics as their grade level, classification, gender distribution, ethnicity and cultural characteristics, and socioeconomic status (SES). Gathering SES data about the geographical area around the school may be easier than trying to assess the SES of each student, since children normally do not know this kind of information about their parents. It is important to identify these demographics in order to plan culturally sensitive and relevant messages and select appropriate teaching aids. Low-income children and ethnic minorities often have special educational needs that must be addressed in culturally sensitive ways.

The next step is to identify students' needs, interests, aspirations, and motivations, and to assess the effectiveness of past or present messages.[9] Keep in mind that over time, needs and priorities can and do change. Instructional diagnosis can also help identify ineffective lessons and improve the basic curriculum. Using these tools, you will be able to better understand the target group, the environment to be served, and how best to fulfill the needs. Instructional diagnosis and analysis form the foundation for sound curriculum design, and can help individuals in the target group take steps to resolve their own health, educational, social, and behavioral problems.

Educational needs fall into two categories: teacher desires and recipient demands. The educator's desire or goal will be for a target group to learn or to do certain things. Recipient demands deal with student needs—that is, things that students say they must have, be able to do, or understand. If either category is ignored, the students' needs may not be fully understood or addressed, and the curricula will not be presented appropriately.[10]

A lesson plan based entirely upon what the teacher thinks the students should learn may not interest the pupils, even though there is a real need for the material. For example, since HIV/AIDS information is included in most school health curricula at several grade levels, teachers may assume that students have a fairly good knowledge about AIDS.

But lesson plans should not be based upon assumptions. What do the students actually know about HIV/AIDS? Are there gaps in their learning? How do you find out? Most teachers would probably give a test. This is a good start. Next, what are the special learning needs of the target audience? Are they from a socioeconomically deprived background or a special ethnic or cultural group with higher-than-average environmental or behavioral risk factors? Are the students interested in learning about HIV/AIDS, or are they bored with the subject? Do they feel invincible (as a number of adolescents do)? Do they perceive AIDS as a problem only for grown-ups?

If students are interested in learning about HIV/AIDS, the teaching approach should be very different than if they are bored with the topic. When students dislike a topic, the teacher will have to design innovative and attractive teaching strategies (and aids) to spark their interest. For a subject that is generally well liked, the teaching efforts may be less strenuous.

### Components of a Needs Assessment

According to Gay, several needs-assessment models are available to educators.[11] Although different terminology and content description may be used, the overall process remains the same:

- Assembling a comprehensive list of objectives;
- Ranking the objectives in terms of perceived importance;
- Examining the high-priority objectives for "discrepancy between actual and desired levels of performance";
- Identifying the needs; and
- Arranging them in order of importance.[12]

The final step in this process is transforming the results into observable and measurable behaviors:[13] that is, using the objectives to move the needs assessment to actual program planning.[14]

McKenzie and Jurs recite two old sayings that illustrate the importance of defining goals and objectives in program planning: "If you do not know where you are going, then any road will do—and you will end up someplace where you do not want to be." And, "If you do not know where you are going, how will you know when you have arrived?" If your program lacks a clear goal and objectives, it will have no sense of direction, making it very difficult to evaluate its effectiveness and potential for growth.[15]

Although we sometimes equate goals and objectives, they are quite different in terms of outcomes. A goal is a broad statement with future implications (in other words, what will happen as the result of the program), whereas objectives are the means used, or the steps taken to reach the goal.[16]

### Data Collection Methods

Various approaches may be used to collect data, depending on the goals and objectives of your program. (Table 1 lists some basic data-collection techniques, with their strengths and weaknesses.) Combining several methods can increase the response rate and accuracy of the information collected.[17] For example, a telephone interview can be used to reach those who cannot attend a group-administered session, and questions generated by a focus group can provide input for the design of a mail survey. There is no perfect method, and each approach will require some adjustments.

Secondary sources (or existing data) are often used in conjunction with survey information. These may include meeting minutes, census data, existing school records, report cards, standardized tests, psychometric tests, screenings, and literature reviews.[18] Using available data saves precious time and valuable human resources and can help suggest questions and objectives, giving a context for the program. However, the data must be evaluated to see if it is relevant to the current situation. Use caution when making generalizations based on existing data.[19]

### Designing Survey Questions

The following factors should be taken into consideration when designing survey questions:

- the purpose of the survey (the desired outcome);
- subject characteristics (e.g., literacy level, language barriers, etc.);

**Whether you are planning topics for classroom instruction; conducting seminars for parents, teachers, staff, or community members; or planning basic educational instruction, needs assessment is essential.**

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- physical factors (time constraints, lighting in room, etc.);
- response questions (qualitative versus quantitative);
- the timing (when to administer, how much time is required for administration);
- the resources available (for translation into other languages, training of helpers, etc.); and
- privacy (confidentiality and anonymity issues).[20]

If the program objectives are carefully written, they will shape the content of the questions; just as the characteristics (e.g., grade level) of the respondents determines the complexity of the questions. The collection method (i.e., mailed versus person-to-person) will influence the time required to complete the task, as well as the structure of the questions. Responses can be quantitative (i.e., using a scale from 1 to 4 to rate items), or qualitative (i.e., dealing with feelings, attitudes, and beliefs, such as, "How do you feel about your school?"), or a combination of the two ("List the three top health concerns of students your age and underline the one that is most important to you"). Time constraints may affect the types of questions used as well as the length of the survey (for example, if the survey needs to be completed during part of a class period, it cannot exceed 20 minutes).

Other factors include an assessment of the necessary resources (i.e., translation into other languages, training volunteers to do the interviewing, etc.) Depending on the sensitivity of the topic, issues relating to confidentiality, anonymity, and parental permission may affect the way the questions are asked and which method is employed. Finally, the social, cultural, and economic make-up of your audience needs to be considered. Therefore, you should seek expert assistance before beginning the data-collection phase.[21]

Questions may take two forms, open- or closed-ended. Open-ended questions allow the respondent to offer an opinion. Such questions must be interpreted and analyzed, which is often difficult and time consuming. An example of an open-ended question is "How do you think violence impacts youth?"[22] Closed-ended questions are more difficult to write, because the answers must be chosen in advance and may not reflect all the possibilities. Such questions do not allow the respondent to clarify or expand upon his or her answer. Interpretation of answers may be problematic. For example, "How often in the past month have you felt stressed?" This question assumes that the surveyor and respondent have similar definitions of stress. Unless the term is defined in the survey, this may lead to inaccurate responses. Closed-ended questions can be more easily analyzed and standardized to compare individuals and groups.[23]

### Data Analysis

Analysis of survey results depends on the data-collection method and how you plan to use the information. The most sophisticated and formal technique is statistical analysis, which requires that the method and resources for analyzing the data be known in advance. Trained computer data entry and statistical personnel are essential for most quantitative and many qualitative surveys. If you obtain expert assistance in constructing questions, this will make interpretation and

**Table 1**

| Method | Strengths | Weaknesses |
|---|---|---|
| **Person-to-person Interviewing** | • High response rate<br>• More complex data can be collected<br>• Reliability of data can be assessed by the interviewer<br>• Interviewer can observe without asking certain characteristics<br>• Interviewer is more likely to fill out forms accurately<br>• Similar cultural backgrounds between interviewer and interviewee can increase accuracy of information<br>• Useful for low literacy persons | • Expensive in time and money for salaries<br>• If volunteers, training expenses are high<br>• Interviewer bias (interviewer influences the answers of the respondents)<br>• Possibility that interviewer may fill out forms without actually interviewing |
| **Focus Groups**<br>(small groups of 6-8 people who are asked open-ended questions) | • Inexpensive<br>• Can get a variety of opinions<br>• Can clarify specific issues that have come up in other areas<br>• Can be used to interpret quantitative results<br>• Can reduce the distance between the program planners and the target population | • Requires special training<br>• Dominant personalities may limit the amount of information<br>• May be difficult to set up<br>• Responses may be influenced by interviewer<br>• Group members may not be representative of the target population |
| **Telephone Interviewing** | • Cost is 45-64 percent of person-to-person surveys<br>• Very similar statistical results to person-to-person interviewing<br>• Can contact larger numbers of people for the same expense compared to person-to-person | • Response rate about 5 percent less than person-to-person<br>• Some people do not have telephones<br>• May need to try to contact numerous times<br>• Less rapport with interviewer<br>• Questions must be simpler because not in person to observe or expand |
| **Mailed Questionnaires** | • Less expensive because it does not require interviewer time<br>• More complex questions can be asked than on the telephone<br>• Less bias because there is no interviewer present<br>• Can be made completely anonymous<br>• Filled out at respondent's convenience | • At least three-week delay in turnaround results<br>• Follow-up letters/calls are time consuming<br>• Lower response rate compared to other methods<br>• Inaccurate addresses<br>• No guarantee the person you mailed the questionnaire to was the one who filled it out<br>• Respondent may read all of the questionnaire first and not follow question sequences<br>• May require more editing at data analysis stage |
| **Self-Administered Questionnaire**<br>(similar to mailed questionnaire except that it is left with the person) | • Used most often where people are in a particular setting, e.g., an office<br>• Eliminates long waiting periods associated with mailed surveys<br>• High response rate (near 100 percent)<br>• Answers can be checked when picked up to avoid missing data | • Person who is handing out the questionnaire must be trained<br>• Some people may not come to the setting, and this method may be combined with mailings |
| **Group-Administered Questionnaires**<br>(administered to a group, such as a classroom) | • High response rate (near 100 percent)<br>• Group leader can motivate and instruct respondents, and check results | • May miss people who are not in the group<br>• Not necessarily anonymous |

Sources: Adapted from David E. Abbey and Robert E. Ford, Jr., *Healthy Survey Methods* (Loma Linda University, 1981); and Lawrence W. Green and Marshall W. Kreuter, *Health Promotion Planning: An Educational and Environmental Approach* (Mountain View, Calif.: Macmillan, 1991), pp. 74-77.

analysis easier and more reliable. Even if you do not have access to expert advice, you can "eyeball" the data, looking for the obvious (comparing "what is" with "what ought to be").[24]

### Evaluating the Data

The more specific and measurable your objectives, the more likely that the survey will answer your questions. Summarizing your results gives you an overall picture of the situation and provides a baseline for comparisons with future research. Be cautious about generalizing your results to the population as a whole.

### Conclusions

After the needs have been assessed, prioritized, analyzed, and evaluated, you should solicit the help of other educators in setting priorities for actions. This will help confirm that the need you identified should be addressed and suggest how to proceed. Then you should report your findings, with recommendations and implications for further programming.

### Summary

A needs assessment is invaluable in developing lesson plans, enhancing existing programs, developing a database for future program decision-making, and serving as a resource and clearinghouse for other program planners. Since educators who use this approach are working with current, firsthand information from the target population, this ensures that the results are more likely to be useful and sensitive to real needs. The time spent to develop the needs assessment is well spent because the results are more likely to be positively received by the learner. A little planning goes a long way to serving the learning needs of your students.

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## EDITORIAL

*Continued from page 3*

ist education? Does discipline have a redemptive objective? Do you zealously preserve and defend the good name of your school?

**Promotion**. After taking the previous steps, an Adventist school is ready to expand and grow under the blessing of God. But first, it needs a mutually supportive alliance with the local church families and leaders. Do they visit the school and participate in its activities? Are you and your students actively involved in the programs of your local congregation? Is the school board active and representative of the constituency? Is the school administration responsive to the needs of the students' families? Do you seek opportunities to stress the value of Adventist education, both in private and in public? Has your school developed a marketing plan that will attract new students and raise needed funds? Do you personally seek and encourage children and youth to enroll in your school or in any of our Adventist schools?

If the administration of each Adventist school, college, and university devotes time to discuss these issues prayerfully in faculty meetings, God will provide the inspiration and guidance needed to succeed in our noble mission. Parents and church members will believe that their investment on behalf of our youth is worth the sacrifice. True, changes in school priorities, policies, and even personnel may be required, but "with God all things are possible" (Matthew 19:26, NIV). He always honors those who honor Him.

## Adventist Historians Meeting

The triennial meeting of the Association of Adventist Historians will be held April 12-15 at Andrews University in Berrien Springs, Michigan. Submissions requested of papers by Seventh-day Adventist historians on any subject, research on Adventist history by all scholars, and papers on pedagogical issues by Adventist teachers in both secondary and higher education. Student papers in these areas are also welcome. Send proposals by December 31, 2000, to Dr. Gary Land, Department of History and Political Science, Andrews University, Berrien Springs, MI 49104. E-mail address: land@andrews.edu.

**Corrections**

On page 50 in the Summer 2000 issue, the center caption should have read: Stephen Guptill, Director of Education, Southern Asia-Pacific Division, and Martha Johnson, division curriculum coordinator, examine the new Bible textbooks.

In Tables 2 and 3 on pages 14 and 15 in the Summer 2000 issue, the categories should have been Strongly Agree/Agree, Undecided, and Strongly Disagree/Disagree.