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ABSTRACT

This document is intended to benefit the many individual school districts who, inspired by the Gallup polls, are now conducting their own surveys. The publication reviews the extensive volume of literature on polling and survey research methods and outlines the main steps to be taken in conducting a survey. Some of the areas covered are the advantages and disadvantages of school surveys, questionnaire construction, data analysis, and the choice of methodology. Descriptions of various successful educational survey methods utilized in Lincoln, Nebraska; Oakland, Michigan; and Santa Clara County, California, are provided along with an 81-item bibliography. (Author/EA)

POLLING AND SURVEY RESEARCH

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FOREWORD

For five straight years the Gallup organization has conducted and issued the results of its annual polls of public attitudes toward education. This year's poll sampled attitudes toward the schools in general, as well as toward particular issues and subjects such as discipline, school and class size, finance, curriculum, career education, alternative schools, and integration (Gallup 1973).

The annual Gallup polls have served as inspiration and models for hundreds of school districts that have sought to conduct their own surveys. Although these polls are useful in assessing the views of a national sample, a local district also wants to know how its citizens judge the quality of *their* schools and what they think about specific educational issues facing the district.

This publication has been prepared for districts that have decided to conduct a survey. It was written with two purposes in mind: to review the extensive volume of literature on polling and survey research methods and, at the same time, to outline the main steps in conducting a survey. Although not a "how to do it" manual, the publication is intended to be a source of practical information as well as a guide to other literature.

The publication of this paper is the result of a cooperative arrangement between the ERIC Clearinghouse on Educational Management and the National School Public Relations Association. The paper was prepared by the Clearinghouse for publication and distribution by NSPRA.

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A REVIEW OF THE PROBLEM

In an era of defeated school budgets and almost continuous financial crisis, public school administrators are faced with the necessity of understanding *why* and *how* such situations exist. There is the nagging possibility that a "no" vote on a proposed budget may not be simply a negative reaction to education itself.

Other possibilities are no more comforting. For example, it may be that a "no" vote on the budget is actually a vote of no confidence for the principal, superintendent, or particular school board members. On the other hand, a defeated budget may reflect voter reaction against programs the voters feel they do not know enough about or do not fully understand and, therefore, distrust. The defeat can also spring from voter reaction against the sponsors of the budget—a reaction against the men who failed to tell the voters what they wanted to know.

In fact, public school administrators very often do not know why their budgets are defeated and are reduced to guessing. Somehow, they have lost touch with the surrounding community—supposing they were ever really in contact with it—and now look wonderingly at that community across a steadily widening gap.

Keith W. Atkinson, in "Communication: Closing the Widening Gap" (1971), provides some insight into this widespread problem.

> While reluctance to increase support for public education need not mean people have lost respect for public education, it does imply that they are beginning to question administrators. They want information before they dig into their pockets for more money.

"They want information . . ." may be the key to at least part of the problem. The public has a desire and a right to know about the things that concern it, and about the officials assigned to supervise these areas of public concern. Because such information should logically come from the men at the "top" (the administrators), the solution to this part of the problem would then seem to be relatively simple. Unfortunately, this is not the case.

School board members have been described as "virtually ineffective communicators." Superintendents, as well, have been rated "generally ineffective" as communicators, "tending to talk only to members of the power structure" (Banach and Westley 1972).

In a study published in 1968, Wilder and others point out the irony of the overall situation. While a school system is more directly dependent on the goodwill of the community than any other governmental agency, the administrators often have no idea of what troubles the parent/voter. Efforts to "fix" this—to inform these constituents—frequently misfire or are irrelevant, or both.

The result of no information or the wrong kind of information is the creation of a gap between a community and the administrator of its schools. This gap results in misunderstanding, distrust, and, more often than not, defeated school budgets. As an added dimension, the troublesome situation works both ways: the same problems that keep information from flowing *out* also keep information from flowing *in*. The result is that the administrator knows as little about what the community *thinks* as the community knows about what the administrator is *doing*.

While it is important to tell the public about schools, educators and administrators must also listen to the public's response to this information and—after serious examination—use feedback to improve communication. The two-way aspect of communication between the community and the schools is crucial. The administrator is faced with the difficult task of finding out what the public *thinks* he is doing and what the public *wants* him to do, and of telling the public what he is *already doing*. This means the public school administrator must have information *from* and *about* his community (Atkinson 1971).

ADVANTAGES AND DISADVANTAGES

The use of surveys and polls can provide the feedback administrators need regarding the opinions and desires of the "clients of education." Cunningham (1969) discusses the dissatisfaction of some groups of clients with the public education system and the increasing demands for greater participation in decision-making, policy-formulation, and restructuring. These clients, motivated for one reason or another, include groups of students, parents, and citizens with stakes in the educational institutions. Consideration of their concerns involves the determination and evaluation of the needs of the various groups and the community. Surveys and polls go directly to the various clients for first-hand information.

While not the sole body of information "upon which school administrators should base decisions" (Fascione and Schwartz 1970), survey research is an important tool and should be utilized more frequently. It provides rapid, reliable information representative of the public's attitudes, permitting passive individuals, as well as the more active and aggressive, to express their views. Information can be provided with small, known margins of error. The cost is usually less than that of other methods, whose costs are often underestimated.

Survey research does have its shortcomings. For example, survey respondents are generally unable to communicate their views directly to specific administrators. Public meetings provide more assurance that views and opinions will reach the mark than survey results offer.

The task force or ad hoc committee also has an advantage over survey research in that members are engaged in what has been described as an "extended educational process." Hopefully they are committed to following through to the actual implementation of the group's goals. Obviously, the respondent to the survey is under no such obligation or commitment (Fascione and Schwartz 1970).

In some circles, however, a fear exists concerning the formulation of any public policy that is based on the results of a survey or poll. These critics contend that such formulation of policy tends to give virtually absolute power to the majority point of view, ignoring the minority positions on various issues. Here, again, the public meeting has an advantage over the survey: minority points of view may at least be aired (Fascione and Schwartz 1970).

When all things are finally considered, the advantages of survey research outweigh the relatively minor disadvantages. Other "traditional" methods are useful but, by themselves, inadequate for assessing public opinion (Fascione and Schwartz 1970). For accuracy and a clear idea of the opinions of various respondents (so far as majority and minority views are concerned), it is difficult to "top" the community survey.

STEPS IN CONDUCTING A SURVEY

Once a community survey has been decided on, the district staff must carefully think out the answers to several questions. What is the purpose of the survey? Which segment of the community—voters, parents, staff, students, the business community, or a cross-section of all citizens—ought to be surveyed? What information is needed? How much money can be allocated? Which surveying technique ought to be used? These are only a few of the issues to be decided as the project gets under way. Often, the answer to one question leads directly to the asking of an additional question.

A number of publications discuss at length the detailed steps involved in a community survey. An excellent manual in the educational field is a 1973 publication of the National School Public Relations Association, *How to Conduct Low Cost Surveys: A Profile of School Survey and Polling Procedures.* The following sections concentrate on three of the most important steps: choice of the survey method, construction of the questionnaire, and analysis of the data.

Choosing the Survey Method

Once a community survey has been decided on, there are two principal means of collecting the data: interviews and written questionnaires. The variations on these two methods compose a scale ranging from unstructured, spontaneous personal interviews, on one end, to structured, carefully planned mailed questionnaires, on the other.

Clearly, circumstances in the survey research project will determine what methods will be employed. These same circumstances will also determine the researchers' roles in gathering raw data.

In the personal interview, the interviewer obviously plays a predominant role, resulting in both advantages and disadvantages. An obvious advantage is flexibility. The interviewer is able to probe for elaboration and clarification of the meanings of the questions (Oppenheim 1966). In addition, in the case of complex questions, the interviewer can explain questions and procedures, generally reassuring participants about the survey purpose, the sponsorship, and the anonymity of responses within the project.

These advantages obviously come from the employment of a skillful interviewer in the survey research project. On the other hand—because of the predominant role he plays—a clumsy interviewer can be as much of a liability to a project as a skilled interviewer can be an asset. In the "leading role" of an interview, a skilled interviewer may be able to increase the number and validity of research effort returns. An inept interviewer may distort or bias the survey by influencing the respondent. Unwitting vocal cues or the unconscious triggering of respondent predispositions may make the validity of any responses questionable (Cannell and Kahn 1968; Gorden 1969; Richardson, Dohrenwend, and Klein 1965; Hyman and others 1954; and Merton, Fiske, and Kendall 1956). The predominant role of the interviewer, then, creates a demand for competency that is critical to the success of the project.

There are two ways to conduct an interview—face-to-face or by telephone. All the advantages—and disadvantages—of personal interviews noted above apply most directly to the face-to-face method. The telephone interview, because it is quick and economical, may be a district's first and best choice for some polls. A deciding factor, according to the National School Public Relations Association (1973), is the availability of money to employ professional interviewers. If a skimpy budget forces the use of volunteer interviewers, NSPRA recommends doing the interviews by telephone. The reason is the tendency of volunteers, even trained ones, to bias the response. "The commitment of the volunteer is less likely to influence the respondent if the exposure is over the telephone and is brief" (p. 6).

If volunteers are used, whether for telephone or face-to-face interviews, training takes on obvious importance. Elam (1973) and NSPRA (1973) give specific advice helpful in recruiting, training, and assigning volunteers.

The roles of the interviewer and the respondent and their relationship to one another have been discussed in several reports. One of these (Silver 1970) studies the relative merits of two interview techniques. The Haley-Davis technique is based on the assumption that the interviewer has an advantage over the respondent in terms of power, position, and status. The other approach—the Rogers technique—denies that any such differences between interviewer and respondent exist. With what might be deemed a more "democratic" approach, it is not surprising that the Rogers method is considered superior for making the subject feel comfortable and at ease. On the other hand, the Haley-Davis method produces the greater amount of subject self-disclosure.

Other studies evaluate and describe specific interview techniques. See Carroll n.d., Southard 1967, Harvard University 1966, New York University 1968, and a series of papers by Hess and others 1967.

Written questionnaires have their own virtues and drawbacks. Generally they are less expensive than interviews. For example, questionnaires are remarkably cheap when they require only a few interviewers, as in the case of the group-administered instrument. Mailed questionnaires are least expensive but cannot be considered representative if the response is less than 80 percent (National School Public Relations Association 1973).

Written questionnaires also take less training to administer. And by doing away with the face-to-face interview they also minimize the problem of influencing respondents by verbal and nonverbal cues. Just because the questions are written, however, does not make them free of bias, as we shall see in the next section.

Perhaps the questionnaire's greatest value lies in the ease with which it can be administered quickly to large sample populations and then

analyzed (Oppenheim 1966, Selltiz and others 1966, Phillips 1966, and Edwards 1957). But for the sake of ease and speed the questionnaire sacrifices what is a major advantage of the interview—"the opportunity to probe and to get open-end answers" (National School Public Relations Association 1973, pp. 16-17).

So how do these methods of data collection stack up? Perhaps the best answer is to say that true success in survey research involves more than efficiently gathering valid research data. It also lies in tailoring the instrument to the specific situation, setting, and questions that need answering. These factors, along with the stern realities of time and money, underlie the selection of the interview, the questionnaire, or a combination of the two. What does the educational decision-maker do when these cost and time elements force a choice between no information and a survey that either costs too much or takes too long? In the final analysis, only *he* can judge.

Constructing the Questionnaire

Prior to the physical creation of the questionnaire (interview or written), it is important to think through several aspects of this particular process. At this stage, for example, the reasons for conducting the survey should be clearly identified. A reasonably detailed outline of the problems to be solved and the questions to be answered provides a solid foundation for the rest of the project work. Good examples of this type of outline are the "accounting scheme" (Zeisel 1968) and "reason analysis" (Lazarsfeld and Rosenburg 1955). Outlines like these establish question *categories* that guide the actual construction of the questionnaire, the interviewing process, and the data analysis that follows the survey.

Initial questions in an interview are another important consideration because of their effect on the interaction between respondent and interviewer. Such interaction can lead *toward* or *away from* rapport. For this reason, special attention should be given to these questions, as well as to the *order* of the questionnaire items.

At the beginning of the interview, the questions should be as general as possible—unemotional questions on noncontroversial subjects (Maccoby and Maccoby 1954 and Cannell and Kahn 1968). This technique, starting with general and unemotional questions and then moving to more specific, "dangerous" questions, is known as "the funnel approach" (Merton, Fiske, and Kendall 1956; Hyman and others 1954; Phillips 1966; Oppenheim 1966; and Backstrom and Hursh 1963). Gallup (1947) provides one of the most detailed discussions of the evolution of questions from general to specific.

It should be noted that even questions on such seemingly "harmless" matters as marital status, age, or income may be too specific. To the respondent, they may seem unnecessary, irrelevant, or threatening. In addition, the more specific and personal questions are more likely to generate bias and should be saved until the latter part of the questionnaire (Oppenheim 1966).

To avoid forcing the respondent to make rapid adjustments in his thinking—jumping forward and backward in his own history—the questions should follow some logical sequence. A commonly used approach is to start with the past, move to the present, and then to the future. The orderly procession of questions should not become an obsession, however. Attempts to ensure order in the sequence of questions should never eclipse a need to be constantly aware of the effect a question may have on the respondent or on the answers that follow.

The questions themselves may be either "closed" or "open." Closed (fixed-alternative or forced-response) questions offer the respondent a list of alternative responses. Questions may range from very simple—for example, true or false questions—to the more complex forms—for example, choosing the most important reason for opposing a hypothetical school financial issue.

Open (free-answer type) questions, on the other hand, provide blanks to be filled in by the respondent. These questions allow freedom of response. Open questions do not lead the respondent, in the courtroom sense of "leading" questions, forcing him to make a possibly undesirable choice. They are not as easy to code and standardize as the closed questions, nor do they work as well to establish parameters of response. Open questions

do, however, avoid the worst pitfall of the closed question—the frustration of a situation where the question does not permit an accurate response (Selltiz and others 1966 and Cantrell and Kahn 1968).

The National School Public Relations Association (1973) notes that the "right" questions are those that produce the information sought. "They are readily understood, logically sequenced, and there are just enough of them to direct the board and administration into a course of action they intend to take" (p. 22). NSPRA advises the question writer to begin with serious study of *The Art of Asking Questions* by Stanley Payne. Then the association offers a number of practical suggestions, including the following pointers:

- Avoid negative questions. ("Do you think money is unwisely spent by the school administration or board of education?" is better phrased as follows: "Do you feel the residents of this district get their money's worth out of the school tax dollars?")
- Do not assume the public knows what is being talked about. If a question is asked about a year-round school plan, precede the question with a brief statement about the plan under consideration.
- Skip questions that can be answered without surveying, especially if they might put the respondent on the defensive. For example, the answer to "Did you vote in the last election?" is found on the voter's registration card.
- Avoid "iffy" questions (e.g., "If new schools could be built without increasing the tax levy, would you vote in favor of a bond issue?"). Says NSPRA: "Respondents answer the question truthfully. They just don't accept the 'if' when they vote." (p. 20).
- Do not slant questions to produce favorable answers.
- Do not use the survey as a sales program.
- Phrase the questions clearly, avoiding jargon and keeping sentences short. To see how the questionnaire will be received in the field, test it on twenty people similar to those in the sample population.
- Keep the survey short to avoid being overwhelmed with data.

Analyzing the Data

Data analysis is the last major activity of a survey research project. It is the stage in which survey research is "digested" into answers to the research problem. The results of the most perfectly designed survey can be obscured, misrepresented, or omitted if the data research is not conducted with skill and care.

The steps involved in the analysis of survey results are outlined by Selltiz and others (1966):

1. establishment of categories
2. categorization of raw data through coding
3. tabulation of responses
4. statistical analysis of the data
5. drawing inferences about causal relations

It would be difficult (and of doubtful value) to choose the most important of these five steps. The coding of raw data deserves particular attention, however, because of the critical nature of the transition from raw data to the first stages of "refinement." Once again, "care" is the watchword. Information loss during the coding obviously must be kept at a minimum. Because of this, researchers are cautioned against over-collapsing research data or creating too few codes to describe accurately the array of responses to a given question (Oppenheim 1966 and Janda 1965).

Because coding is a process of putting data into predetermined categories, the nature of the process is obviously subjective. Individual judgment must be exercised in deciding what data go where, or if the data are significant enough to warrant coding at all. In addition, the initial establishment of the categories into which the data will go involves the

exercise of value judgments by the coder. This situation has raised serious questions about *coding reliability* (Selltiz and others 1966). Several statistical tests are available, however, and serve as partial checks for coding reliability (Holsti 1968).

EXAMPLES OF APPLICATIONS TO EDUCATION

Lincoln, Nebraska

A good working model for the organization of a community needs survey was developed by the Nebraska Research Coordinating Unit for Vocational Education (NRCUVE) in Lincoln. The model's procedures were tested in twenty Nebraska communities in 1965, 1966, and 1967.

The underlying philosophy—and one of the model's most appealing characteristics—was "the involvement of many people in a community-wide effort." In this way, the project generated more community interest automatically (Cromer 1968).

The Nebraska model is designed to function by "steps." As the "kick-off" point of the survey project, step one is a meeting called by the principal or superintendent. School administrators, board members, vocational instructors, community leaders (representing the PTA and other similar groups), representatives of prospective community employers, and the news media should be invited to attend this meeting.

During the meeting, the philosophy of the local needs study, its goals and objectives, its benefits, and the steps involved in conducting it should be carefully described.

Step two of the plan is designed to be carried out following a decision to undertake the study, whenever such a decision is made. Several things are accomplished at this point, among them,

1. The appointment of a director for the local vocational educational needs study.
2. The identification of individuals, organizations, and agencies that will be involved in the study.
3. The official formation of a local vocational needs committee with the explanation of goals and purposes.
4. The establishment of local objectives and purposes to be accomplished.
5. Defining the scope of vocational education needs study.

(Cromer 1968)

During either the first or second meeting, the plan calls for the definition of the project's scope and the setting up of a timetable. The identification of sources of information already available (such as census or population data) should begin at this time, as well. During this phase, the model is based on the logical presumption that the leader will be the director of the study. It is recommended that a school board representative be present at this phase of the operation to act as a liaison between the school board and the community survey committee. Representatives of other interests can also be included as circumstances dictate.

A number of substeps are required to accomplish this phase of the project. These substeps include a vocational interest inventory, a vocational urban opportunities survey, a vocational rural opportunities survey, a graduate follow-up, an adult educational needs survey, and the acquisition of local community facts. The Nebraska Research Coordinating Unit for Vocational Education has designed specific forms for each of these substeps.

At this point, it should be noted that this model was designed specifically for the area of vocational education. However, the model's creators point out that it can be adapted for areas other than this "because facts from the local community are valuable in making decisions in all areas of education" (Cromer 1968).

The remaining steps in the Nebraska model—from the actual gathering of the information to the implementation of the findings—emphasize two principal elements: common sense and thoughtful use of available material and personnel.

For example, the model suggests the use of students and student organizations (journalism classes—or other appropriate groups), as well as assistance from civic groups. It is suggested that use be made of a part-time staff consisting of community members willing and competent to do summary or compilation work. NRCUVE suggests that this could be housewives with college degrees, willing to work part-time on a by-the-hour basis. A recommended allotment of $200-300 for a part-time staff would provide the manpower for survey-

ing communities with populations up to 5,000 people.

Another strong point in favor of the Nebraska model lies in its "tried and true" aspects, having been tested (as mentioned before) in twenty communities. One of the pitfalls illuminated in the testing is the unbalanced allocation of survey work. NRCUVE cautions future survey research administrators to make sure that all the laborious and time-consuming tasks do not fall on the shoulders of already overloaded individuals or groups. This could not only produce hard feelings, but lead to a "scattergun" expenditure of energy and a number of uncompleted assignments.

Once the data are gathered and the summarization has begun, it is essential to establish a flow of that information to the various interested groups. For the purpose of maintaining community interest, for example, it is important to give regular reports of progress to the local news media. Such publicity keeps the larger community informed of the study's progress through a running weekly account. Similar reports should also be made regularly to the local school board, as well as to groups that were involved in the planning stage, to keep them involved in the project. For the specific purposes of a vocational needs study, NRCUVE suggests that reports concerning the findings of the study also be sent to the Division of Vocational Education. At this point, maximum use should be made of graphs and charts to "project visually the concepts dictated by the facts" (Cromer 1968).

Analysis and interpretation of the data, with accompanying recommendations based on them, logically follow. This phase should include an "evaluation session" during which important factors uncovered by the survey can be identified. Any available, relevant state and regional data should naturally be included in the analysis and interpretation. The recommendations might take the form of specific programs, the nature of which would depend on the nature of the survey itself.

The final "action" step is the implementation of findings. It is important that the findings be implemented because the study has by this time awakened expectations that, if left unmet, would turn sour. Assuming that the survey is in the area of [illegible]on, such implementation could involve the alteration of existing school courses or the adoption of new course offerings. With the actual implementation of the survey's findings, the project is completed.

The Nebraska survey model is a procedure for determining vocational education needs through community analysis. It is a type of "quick, practical, action-type research" (Cromer 1968) designed to gather data for answers to specific questions. With specific modifications, it could work very well as a model for use in a number of areas besides vocational education.

Oakland, Michigan

A rather impressive information feedback system was developed and put in use in the Oakland County Intermediate School District in Michigan. The system is called "INFORET" (for INFOrmation RETurn) and was one of four computer programs for use in public relations in Oakland County. INFORET was developed for Oakland Schools, a consulting and advising division of the state system in Michigan.

What is impressive about INFORET is the fact that it gives a continuous reading on community attitudes on a wide range of topics. It also indicates how much or how little the various segments of the public know about schools in Oakland County. The continuous survey system may question as many as 3,600 people per year. This costs about $2,000 per school year for the continuous survey, or about $300 per survey. Survey design assistance and specialist advice are included in this figure. Poll results are analyzed for the price of computer time and materials. Schools in districts outside Oakland County are charged for the services of the consultants, as well as for the computer time (Stark 1971).

The actual surveys are conducted by volunteers who are chosen "in the interest of their district." Working without pay, these volunteers poll selected individuals concerning specific issues. Most of the polls require about fifteen hours of work by one volunteer. The results have been 95 percent reliable (Stark 1971).

Use of unpaid volunteers has done more than just cut operating costs, however. This feature of the INFORET program is also valuable because of the

degree to which the volunteer interviewers have become involved in the project. As a result of their experiences, the thirty volunteers at Oakland have become extremely knowledgeable about school affairs and issues. This has produced another communications medium for the school district.

The INFORET program has been used to determine the community's attitudes on a number of issues: feasibility of a tax increase, school district needs, voter participation in elections, parental satisfaction with kindergartens, student attitudes about schools, and the like. In ancient times, kings would call for the execution of the bearer of bad tidings. While the receptors of poll and survey results do not resort to such extreme measures, they are often no more pleased with them.

In her 1971 article, "How Schools Can Listen to the Community," Nancy Stark wrote as follows:

> Not all INFORET users are pleased with the results of the surveys. Some just don't like the realities that are exposed. Use of the surveys is nevertheless growing, and their effects will be increasingly noticeable as more and more school policies are changed to accommodate respondents.

It should be emphasized, as well, that INFORET provides only information; it makes none of the decisions. What is actually done with or about the facts uncovered by the interviewers remains a matter for the discretion of the school administrator.

An article in the *Trends* newsletter ("The Computer and PR" 1973) discusses the INFORET program and three other advancements in the application of computer survey techniques to public relations work. These include ASK (Attitude Sampling Kit), PROFILE, and READABILITY.

The Attitude Sampling Kit provides a variety of attitude, opinion, or information survey techniques that can be aimed at specific publics. PROFILE helps "tailor" communications for particular audiences by comparing voter files with student files. READABILITY takes another approach by computing the reading level of a particular communication. In this way, the creator of the communication can tell whether his message will be understood by the group of people he is trying to reach.

Other alternatives exist for schools without the resources to take on a program like that of Oakland County. Where finances and personnel are in very short supply, the schools can make use of community aides to do survey work. Another possible alternative lies in recruiting the faculty and students to do the survey work (Stark 1971).

(CFK Ltd. has a booklet for districts interested in conducting inexpensive surveys using volunteer interviewers, *A Look into Your School District*, published and available from CFK Ltd., 3333 South Bannock Street, Englewood, Colorado.)

Santa Clara County, California

Faculty and student volunteers were used in a survey of educational needs taken in Santa Clara County, California. In that area, a countywide survey was initiated to find out what the people there expected from their schools. One of the goals of the survey was to determine what changes in school programs were most necessary and what priority needed to be assigned to these changes (Preising 1967).

Educational need is defined here as the discrepancy between what people think should be taught and what people think is taught in the schools. It is a matter of the community's expectations, in other words.

To determine the nature of these expectations, the SPACE Center (Supplementary Education Center) conducted a survey that involved 4,000 students (grades 6, 9, and 12), 1,600 teachers, and 850 parents. After identifying every district with a high school, the center calculated 5 percent of the total high school population in each school district. If the 5 percent figure was very much over 250, two high schools were asked to participate. If the 5 percent figure was 250 or less, the single high school was asked to participate (Preising 1967).

In addition, the attendance areas of these high schools were determined to identify the "feeder" elementary school districts. Five percent of the feeders was then calculated and an estimate made of how many sixth grade classes would be needed to match the 5 percent figure, using thirty students per class as a guide. For each sixth grade required, one elementary school was chosen at random (Preising 1967).

By studying more than one grade level and one group of people, the center was able to produce

an indepth study of the county's educational needs existing throughout high schools in Santa Clara County. As further insurance against superficiality, the center included a cross-section of the persons whose opinions were most important to the operations of the schools: students, teachers, and parents (Preising 1967).

Throughout the survey, the Supplementary Education Center confronted a crucial problem in its findings: Was the information being received *characteristic* enough to permit making warranted generalizations about schools *throughout* the county? By finding the common educational needs—those shared by school districts throughout an area—the center felt it could formulate solutions that would benefit a larger area, all at once. It was also considered useful for school districts in a given area to know what problems they had in common with other districts and for them to know what their neighbors had done or were planning to do.

The questionnaires given to the participants had been developed by a team of experts. Prior to administration, the questionnaire had been tested on the youngest of the participants—the sixth graders. If the questionnaire was clear and effective with this group, the team felt, it would be so with the older, more sophisticated participants. After the pilot testing, many items were eliminated and nearly all of the 127 items retained were rewritten (Preising 1967).

Following this, the team secured the approval of school officials in the affected districts and schools. Meetings were held with the superintendents and research directors of these districts, and all consented to allow the survey in their areas. Another meeting was held with the school principals, and all fifty-six gave their permissions. In addition, the principals were asked to select "teacher-coordinators" to administer the survey questionnaires to parents, students, and other teachers (Preising 1967).

The teachers (who were paid for their time) who consented to assist in the survey attended an evening meeting where they were told about the survey and how to carry it out. These were teachers of classes with a range of ability levels or of classes with middle-ability students.

The students were given the survey questions during a required course. Mailing out the questionnaires, pencils, and comment cards and having the parents mail them back was too costly, in the center's view, so the students took the forms to their parents and brought them back. (There was a 75 percent return on the survey, with 848 parents responding.) The faculty were given the questions during a faculty meeting, to ensure maximum participation. When this was not possible, the forms and material were left in the teacher's mailbox (Preising 1967).

There was no special difference (race, housing area, income, etc) between those who responded and those who did not. One exception was forty-one parents who could not read English (the questionnaires were not available in Spanish) (Preising 1967).

When all participants had completed the survey, the material was given to the principal's secretary in each school. Representatives from the SPACE Center picked up the material at these locations and took the forms to be processed. Over 6,000 people participated, necessitating data processing machines to record 1.6 million pieces of individual data. In spite of this, it took less than seven hours to transfer the data to magnetic tape, using optical scanners (Preising 1967).

Prior to being scanned, the answer forms were counted, examined, and corrected. Extraneous pencil marks were removed, and the answer boxes properly darkened.

The educational need survey was basically a measure of opinion: a study of what people *thought* the schools *were* and *should have been* teaching. As opinions, of course, these responses indicated either actual need or a lack of awareness about what was actually being done in the schools. Either way, it was important for the Santa Clara County educators to know what the members of their communities thought. The conclusions of the survey gave these educators a "well-defined picture of the people's expectations," as well as "enlarging the information base" on which perceptions (and finally decisions) are based (Preising 1967).

The school administrators were gratified to learn, as a result of the survey, that they enjoyed a healthy relationship with the surrounding community. The results showed overall confidence in the school system. Through the survey, the community

expressed its confidence in the school system's ability to correct any existing deficiencies. In addition, there was considerable agreement among the teachers, students, and parents on the most important needs.

The Santa Clara Educational Need Survey pointed out a positive aspect of assessing the community's views, with a kind of moral lesson: it is just as important for educators to know when they are doing something *right*, in terms of public opinion, as it is for them to know when they are making a mistake.

OTHER APPLICATIONS

In "Survey Research in Public Education: A Cheaper and Better Process," Fascione and Schwartz (1970) describe what they term "a better, faster and less expensive mechanism for assessing community experiences and dispositions." This mechanism is survey research that utilizes "area probability techniques" and panel-type survey research.

The panel-type of survey research measures changes in opinions toward major issues, as well as giving an indication of the opinions themselves, very quickly.

Survey research using area probability techniques involves selecting respondents through probability sampling, except where 100 percent samples are needed from smaller populations. The experiences and attitudes of these respondents are then measured as the individual responds to a series of statements and questions. Three surveys of this type were successfully carried out in Philadelphia. One such survey helped in the development of guidelines for reactivating and expanding an already existing local school advisory committee. Another survey resulted in findings strikingly similar to those of an interim committee's report. The difference between the survey and the report, however, was that the survey approach took less time and cost less money (Fascione and Schwartz 1970).

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