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PRACTICES IN DETERMINING EDUCATOR NEEDS FOR STAFF DEVELOPMENT AT TEACHER CENTERS

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THE UNIVERSITY OF OKLAHOMA

GRADUATE COLLEGE

PRACTICES IN DETERMINING EDUCATOR NEEDS FOR STAFF DEVELOPMENT AT TEACHER CENTERS

A DISSERTATION

SUBMITTED TO THE GRADUATE FACULTY

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degree of

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By

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Norman, Oklahoma

1984

PRACTICES IN DETERMINING EDUCATOR NEEDS

FOR STAFF DEVELOPMENT AT TEACHER CENTERS

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PRACTICES IN DETERMINING EDUCATOR NEEDS FOR STAFF DEVELOPMENT AT TEACHER CENTERS

CHAPTER I

INTRODUCTION

Staff development, professional development, inservice and continuing education are all terms which refer to the various types of educational programs for certified teachers working in the field. Because of the recognized need for continuing education and training beyond the formal classroom, staff development and inservice education programs have been instituted in many school systems.

The National Education Association (1982) and the American Federation of Teachers (1981) both recognize the need for this form of continuing education for teachers. In referring to staff and professional development, the National Education Association (1982, p. 2) affirms: "The teaching profession is dynamic, requiring opportunities for continuous growth and development."

Educators must have access to new knowledge and be able to manage its use to the best advantage of students. This knowledge should stimulate educators intellectually and aid in the retention of teachers. The American Federation of Teachers (1982, p. 5) writes: "Continuing education will be as important for licensed teachers as preservice education will be for future teachers...and thereby serve as a key to continued excellence in our schools."

Other factors have also contributed to an increased need for teacher inservice and staff development programs. Poor economic conditions, the

stagnant or declining student population and the large number of certified teachers available to fill a shrinking number of teaching positions have decreased teacher mobility. The reduced demand for new teachers in addition to a more stable faculty has resulted in a shift to developing staff already in place (Florio, 1977; National Education Association, 1982).

One key point in developing effective staff development programs has been identified as teacher involvement in the selection of inservice or staff development programs (Journal of Teacher Education, 1976; Educational Leadership, 1977; The Practitioner, 1977; The Clearinghouse, 1978; Edelfelt, 1980). This involvement can be through direct means, such as serving on a committee which selects the programs to be offered, or less direct measures, such as participating in a needs assessment study.

A study by Marshall (1982) showed that involvement in the establishing of goals for staff development helps create commitment on the part of the teacher. Witkin (1978) concludes that teachers themselves should take responsibility for assessing their strengths and weaknesses when establishing goals for staff development and planning staff development activities.

The calculation of strengths and weaknesses is often accomplished through some form of needs assessment. Needs assessment methods involving teachers are varied. Yet, they all share a common goal or use: for the planning of content of staff development and inservice programs.

It is not enough to state a general goals or objective without also asking how well the different needs assessment methods accomplish the various goals or objectives. Is one method better than another in achieving certain stated purposes?

Mertens and Yarger (1982) write that formal and informal needs assessment methods have different uses in program development. They propose that formal needs assessments help determine general program areas while informal methods have their most appropriate use in determining specific programs. Marshall and Caldwell (1982) claim that the informal assessment of needs of constituent groups is more likely to lead to "successful" programming than the use of formal methods. This appears to contradict much of the needs assessment literature which emphasizes the importance of a systematic and formalized approach to the assessment of needs.

Two assumptions advanced by Kaufman (1970) are: (1) that needs can be identified and stated in measurable terms, and (2) that a systematic approach to problem solving results in greater effectiveness than any other process yields (p. 23, 24). The writings of Kaufman (1970) and others in the area of educational problem solving stress the superiority of a systematic problem solving approach, which can be generalized to mean formal needs assessment processes.

Understandably, there is some bafflement on the part of education groups concerning the most appropriate needs assessment approach to use when planning staff development programs. Additional information and research is needed so that educators can better understand the most appropriate uses for the various needs assessment approaches. Such information would be of value in making decisions concerning the type of needs assessment to be used in planning staff development programs.

Statement of the Problems

This is an investigation of the relationship between public school staff development activities perceived as successful and the needs assessment methods (formal and/or informal) used to initiate them.

For purposes of this study, successful staff development activities will be defined as those which meet any one or more of the following criteria:

(1) received positive ratings on evaluation forms completed by participants,

(2) perceived as "successful" by respondents, and/or

(3) well attended, attracting close to the limit set for the number of participants, or nearly the maximum number of members of the target audience.

Rationale for the Study

Demands on the resources of the professional educator in a changing society are increasing rapidly. The knowledge explosion, expectations of the public, and legislation for different or additional curricula have all added to the pressures on educators to continue developing their professional knowledge and skills. Dillion-Peterson (1980, p. 1) writes:

> Staff development is presently one of the most emphasized areas in education. Almost every large school district and many smaller ones in the United States and in other countries have an office or administrator whose responsibility it is to provide continuous professional growth opportunities for staff members....One idea continues to be almost universally accepted--that is that the cornerstone of quality education is what happens between the individual teacher and the student. It is also generally agreed that if there is to be adequate growth in student performance and

attitudes, primary consideration should be given to improving the way in which teachers (and those who support their efforts) work in the schools.

A continuous staff development program is used to help educators remain current in their knowledge and skills. To determine what staff development activities are required, a formalized needs assessment is often initiated. A needs assessment defines areas of perceived need, but carries no assurance that educators will try to rectify that need when opportunities are presented.

Formal needs assessments are not always used to determine specific staff development activities. Instead, an informal network of suggestions and requests is often responsible for establishing staff development activities.

A heuristic believed by many persons involved in planning staff development programs is that needs assessments should identify the general direction of staff development programs but not the specific program. Another belief of some professional in staff development is that individual and group requests for activities relating to the goals established by the needs assessment should be used to establish the general direction for staff development, rather than to determine specific activities.

Little research has been done to support or refute the belief of many staff development professionals that successful staff development activities are more often determined through informal means, such as teacher requests, rather than through formal needs assessments, or for the alternate belief that formal needs assessments are most effective in shaping the direction of staff development programs rather than selecting specific activities. For this reason, studies are needed to determine the relationship between staff development

activities perceived as successful and the type of needs assessment used to initiate the staff development activities.

Purpose of the Study

The purpose of this study is to investigate the relationship between public school staff development activities perceived as successful and the needs assessment method (formal and/or informal) used to initiate the activity. The study will also examine various characteristics of staff development activities perceived as "more successful" and "less successful" for the purpose of determining if there is a set of characteristics common to "more successful" or "less successful" staff development activities. Characteristics to be studied include:

(1) the broad subject or description of the activity,

(2) the target population,

(3) number of participants,

(4) total number of hours for the activity,

(5) number of meetings involved in the activity,

(6) how the activity was assessed for effectiveness, and

(7) source(s) for offering activity, including various types of formal and informal needs assessments.

The type of needs assessment (formal and/or informal) used in deciding to offer various staff development activities will be examined closely to analyze the nature of possible relationships between the type of needs assessment and the relative success of the activity.

CHAPTER II

REVIEW OF THE LITERATURE

The review of literature is divided into two main sections. The first section deals with educational needs and needs assessment models. Included in this section, is a discussion of strategies for performing needs assessments and various techniques for collecting data for the needs assessment. The second section provides a rationale for teacher inservice education, discusses some of the different models for inservice education, and presents a discussion of the national teacher center movement.

Needs Assessment

The Concept of Need

Any discussion of needs assessments must be based on an understanding of need. According to English and Kaufman (1975), a need represents the gap between the current results and the desired or required results. In a similar vein, Kaufman (1972, p. 5) defines need as the difference between "what is and what ought to be or should be." Both definitions indicate that a discrepancy between the present and a desired future condition must exist before a need is present.

Coffing (1977) views needs as being an aspect of one's own mental experience. According to Coffing, needs exist within the mind and are cognitive concepts of "what should be."

Bradshaw (1972) categorizes need into four main types: normative, felt, expressed, and comparative. To this list, Burton and Merrill (1977) add a fifth category, which is anticipated need. Normative need is present when an individual or group possesses something that is considered less than the

established standard. The standard may or may not be an appropriate one (Bradshaw 1972). Felt needs can be described as "wants." Felt needs are what is perceived to be possible, available, or just what would be "nice to have" (Bradshaw 1972). Expressed needs, as the name implies, are openly stated through some form of expressions, such as verbal or physical language (Bradshaw 1972). Comparative needs are experienced when an individual or group is observed to be receiving services or some other thing which another individual or group lacks (Bradshaw 1972). Anticipated needs are projections of future needs (Burton and Merrill, 1977).

Price and others (1977) make the distinction between needs and concerns. A concern is a hypothesis or belief that there is a difference between existing and desired outcomes. It is only through needs assessment that this hypothesis can be validated and established as a true need. Price believes needs are proven or factual discrepancies between the existing and desired outcomes. But, according to Bradshaw (1972), some types of needs (felt needs) may not be actual needs; but they become needs because they are perceived as such in the mind of the individual or group.

Needs, as expressed by educators in dealing with areas associated with instruction, can be considered educational needs; whether the need more closely resembles a gap (English and Kaufman, 1975), what should be verses what is (Kaufman, 1972) or any of Bradshaw's (1972) need categories.

Role of Needs Assessment

The establishment or determination of "need" is the role of the needs assessment. Burton and Merrill (1977, p. 21) define needs assessment as "a systematic process for determining goals, identifying discrepancies between goals and the status quo, and establishing priorities for action."

Trimby (1979, p. 24) also defines needs assessment as a systematic process for identifying and measuring gaps between the "what is" and the "what ought to be." These gaps are then prioritized in order to determine which of the gaps should be worked on first to obtain closure.

Needs assessments can gather qualitative and/or quanitative information for use in educational decision making. Barbulesco (1976, p. 35) writes:

> The ultimate purpose of a needs assessment is to provide an empirical basis for decision-making about matters related to education, for example, the allocation of resources for the content area, style of teaching or learning and general organization of educational programs....In as much as the needs assessment cycle is a continuous process, an educational program as a means to an end is also a continuous process and must be shaped and reshaped to maintain its relevancy, reliability, validity, and over-arching purposes.

English and Kaufman (1975, p. 3) view needs assessment from the perspective of curriculum development. They define needs assessment as "the process of defining the desired end (or outcome product, or result) of a given sequence of curriculum development...It is neither a curriculum itself, nor should it embrace any set of assumptions or specifications about the type of curriculum which ought to be developed...."

There are two types of needs assessment methods: formal and informal. Informal needs assessment methods can involve a variety of person-to-person contacts in which needs are expressed on an individual basis. In formal needs assessment, data is systematically gathered and analyzed through use of an instrument of some type. There may or may not be any personal contact between the needs assessor and the respondent (Pennington and Green, 1976).

Needs Assessment Models

There are a variety of needs assessment models. Most fall into the category of discrepancy models in that they identify and measure discrepancies between existing conditions and ideal conditions.

Discrepancy analysis as a systematic approach to needs assessment requires continual input and feedback. It is a cyclical approach, in which a needs assessment is never complete, but only tentative until the next assessment (Witkin, 1975).

The Kaufman model of needs assessment is a discrepancy model which determines gaps between present outcomes and the desired outcomes. Kaufman is not interested in the process to close the gap between the "what is" and the "what should be." Instead, Kaufman's model is concerned with determining gaps, defining problems and prioritizing them. Kaufman (1972) suggests that a priority list be developed by asking the question, "what does it cost to meet the need?" and "what does it cost to ignore the need." Needs would be prioritized according to the cost-benefit ratio of meeting or resolving those needs.

In the Kaufman model, needs data can be collected through a variety of sources including: standardized tests, criterion-referenced tests, direct and/or unobtrusive observations, interviews, Delphi techniques, census data, employment data, and polls. Ideally, the data should come from all those involved in the

education process: learners, educators, and members of the community (Kaufman 1972, 1977a, 1977b, 1979, 1980a, 1980b).

The Coffing needs assessment model is also a discrepancy-based model. Like Kaufman's model, it is concerned with determining and prioritizing gaps between existing conditions and ideal conditions. Coffing, however, places more emphasis on decision making whereas Kaufman emphasizes problem solving. Coffing also emphasizes the importance of the client's own perception of need, rather than the assessor's perceptions (Coffing 1974).

The Lee model is a discrepancy-based model which seeks to provide a data or information base for educational decision-making. The components of the Lee model are: students, staff, the public, experts in the field being examined and authorities on the requirements of the future. According to the Lee model, these components should all interact in indentifying desired educational outcomes and determining the degree to which students achieve these outcomes. The differences between these two findings represents need. Problem-solving is then initiated to meet those needs (Lee, 1973).

H. H. Harless refers to his model as a "deficiency" model. However, the Harless model closely resembles other discrepancy models because deficiency is defined as "the difference between the actual situation and a model situation." The Harless model was designed primarily for business and industry, and includes three major components: managers, supervisors and training personnel. The Harless model attempts to analyze and generate solutions to problems. This differs greatly from Kaufman's model which assesses gaps between present and desired outcomes, but does not concern itself with the process of closing the gap (Harless, 1975).

Kaufman (1972, p. 33, 34) identifies three types of needs assessment models: inductive, deductive and classical. The inductive approach identifies community values and patterns of behavior. The deductive model identifies and selects goals of education from an existing list, usually originated by educators. The classical approach involves selection of generic goals by educators with little public involvement.

The process of performing the needs assessment varies with the approach selected. The inductive approach requires that behaviors be identified and that these behaviors be compiled and classified into behavior expectancies. These behavior expectancies are then compared to existing goals, and the differences reconciled to form a set of objectives which are used in program planning. Behavior is analyzed and goals implied by the observed behaviors are identified. The behaviors represent the actual goals that are valued, not necessarily what should be valued (Kaufman, 1972).

The deductive approach begins with specific goals and then identifies appropriate behavior for the educator or student in meeting the goals. Educators choose their own goals develop criterion measures to measure progress toward the goals, and make necessary structural changes to accomplish the goals. Data is collected on performance and discrepancies are analyzed. Objectives are established from the observed discrepancies and are then incorporated into progam development (Kaufman, 1972).

In the classical approach, generic goals are established and programs developed without any formal assessment (Kaufman, 1972).

In addition to the well known system discrepancy models, there are two other families of educational needs assessment models. Magmanian (1977) terms these models individual self fulfillment models and individual appraisal models.

Individual self fulfillment models are based on random appeal and/or selective appeal. In the case of random appeal, need is identified when it is determined through some form of needs assessment that it is economically feasible to offer a program. Selective appeal focuses on the needs of a defined population. The client group may be individually contacted or selected from a specialized population. Individual appraisal models involve the clients in consciously determining their educational needs whether as individual or as a part of a group.

As mentioned earlier, system discrepancy models are used to indicate a gap or discrepancy between the present conditions and desired conditions. Problem need models and goal identification models fall into this category. According to Magmanian (1977), the problem need model is used for programs that are remedial by nature and that are targeted for a specific organization or population. This contrasts with goal identification models which select goals aimed toward general improvement and not for the elimination of a few specific deficiencies.

Pennington (1980) reports on three other general clusters of needs assessment models: diagnostic or medical, analytic, and democratic. Pennington (1980, p. 6) writes:

> The diagnostic or medical model views need as something whose absence or deficiency proves harmful...The direction in which improvement would occur given information on the status of a person or progam is the analytic model. The democratic model involves interactive and collaborative efforts at specifying needs using voting techniques.

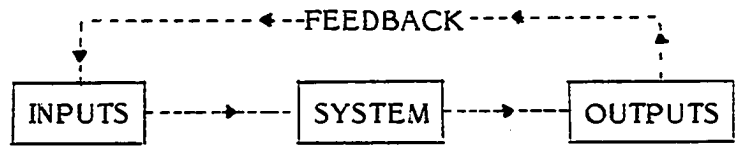
Needs assessment models can also be classified according to point of view. One model, internal needs assessment, looks at needs as seen within the organization. The second model, external needs assessment, views needs from the perspective of outside the organization.

An external needs assessment identifies skills and knowledge which are necessary for self-sufficiency and economic independence after the student is outside the educational organization. An internal needs assessment identifies organizational goals and objectives. Often, these goals and objectives are based on overall societal needs which are determined by an external needs assessment. Most efforts in needs assessment use an internal approach, with the primary focus placed on goals and objectives of the organization (Kaufman and English, 1979).

Witkin (1975, p. 19, 20) describes the needs assessment process in terms of a general systems model with input, output and feedback (see Table 1).

Table 1

General System Model



Resources	Process	Goal Oriented Product
Energy	Program	Services
Information		Learner Outcomes

The inputs in the needs assessment process include: resources, energy and information contributed by members of the system. Outputs are generated and these outputs can include goal-oriented products, new services, and/or learner outcomes (Witkin, 1975).

The needs assessment process based on general systems theory is systematic. Actions and reactions are not isolated events, but are all inter-connected. The process is cyclical and feedback concerning the outputs is used to evaluate the system. Kaufman (1977, p. 60) writes: "Planning and doing are the key elements of a systems approach, provided that these are combined with appropriate evaluation and with provisions for revising and renewing the system."

Steps in Performing a Needs Assessment

Formal needs assessments have well-defined steps which the assessor or assessment team follow in performing the needs assessment. Klein (1971) identifies four phases of a needs assessment. They include: (1) setting goals by some means, (2) determining the present status and the difference between the present condition and the goal, (3) prioritizing the findings, and (4) implementing the findings.

The first step is identifying a broad range of possible goals. This can be accomplished through use of a pre-determined list, or through brainstorming by groups or individuals from the community. These goals are then ranked in order of importance. Differences between the goals and the actual performance are then identified. Priorities are set for action on the identified differences. Once the needs assessment instruments and/or procedures have been selected or developed and tested, the data is collected. Results of the needs assessment are then prioritized and disseminated to the participants in the assessment (Klein, 1971). According to Davis (1980), this process should also include the continuous reassessment of needs because both needs and priorities change.

Witkin (1975) discusses three different needs assessment strategies which are based on a discrepancy analysis. In the first method, the simple difference

between two sets of ratings is figured. The first rating measures the present situation, and the second rating measures the ideal or preferred situation. This method is easy to do and requires little cost in time and money. However, it also has the disadvantage of oversimplifying results, and it can lead to invalid conclusions if either set of information is invalid.

The combined analysis method uses both quantitative and qualitative data. It integrates perceptual and attitudinal factors with test scores and other quantitative data. As a result, it allows for greater differential of input. The combined analysis method is more difficult to perform than the simple difference method. It requires more time to perform, and the results are not as easy to communicate (Witkin, 1975.

The critical index or function method relates the importance of the goal with whether the goal has been attained or not. It also differentiates the more critical goals from the less critical goals. This method may also prove invalid if either set of data is invalid (Witkin, 1975).

Data Collection Methods

A variety of data collection methods are available for setting goals and determining needs. The various lists that have been published all duplicate each other to some extent. A compilation of these lists shows the following methods for collecting data for needs assessment purposes:

Surveys or questionnaires -- Edelfelt (1980a), Yarger (1981), Davis (1980) Kempfer (1955), Barbulesco (1976), Magmanian (1977). Surveys and questionnaires are the most widely used techniques for needs assessment. The items or questions are usually brief, specific, and intended for a short answer. Information, opinion and attitudes can be gathered through these questions. The instrument is usually a paper-pencil one which can be administered individually,

in groups, or through the mail. For all its advantages, the questionnaire method is only as good as the instrument itself. A great deal of time, effort and knowledge is required to develop an instrument which will prove valid and reliable. Another disadvantage is that while large numbers of people may be polled, returns by mail cannot be assured. Also, the questionnaire may be costly in time and money to develop, disseminate and later analyze the returns.

Interviews — Davis (1980), Knowles (1970), Edelfelt (1980). Interviews are structured or unstructured conversations between an interviewer and the respondent. The most productive interviews for needs assessment purposes gather information about needs and priorities and are useful in amplifying concerns that cannot be adequately explained or voiced on a written questionnaire. Interviews require more time to administer than a written questionnaire, thus reducing the number of people that can be polled. The interview method requries skilled interviewers in order to maintain uniformity of questioning from one respondent to the next, or from one interview to the next.

Checklists — Davis (1980), Kempfer (1955). Checklists contain a detailed listing of items directly related to needs. Respondents are asked to check those items in which they would like to have more skill or knowledge. The responses are then tabulated and the results theoretically will reveal training needs. An advantage of checklists is that they can be easily administered and tabulated. A disadvantage is that checklists do not reveai the strength of degree of the individual's need for training in the items checked. Also, needs may be present which are not included in the checklist.

Content analysis of existing data — Edelfelt (1980b), Davis (1980), Knowles (1970), Kempfer (1955), Barbulesco (1976), and Yarger (1980). The pulling together of existing data is a widely used needs assessment method. In

content analysis, data is gathered from written documents by means of a systematic and quantitative procedure. In order to use content analysis, the documents or data must be accessible. Also, the process may be very time comsuming unless the desired data is on computer. Yarger and Mertens (1980) reports that the type of existing data used in federal teacher center proposals includes: socioeconomic and demographic data, social climate data, standardized test scores, attendance data, and accreditation data.

Observations — Edelfelt (1980b), Davis (1980), Barbulesco (1976). Observation is the purposeive watching and listening to objects or events as they take place. Observation as a data gathering technique can take the form of teacher or student self-observation, observation of students by teachers, observation of teachers by students, supervisors or advisors. Observation requires use of trained observers. It is a time consuming method, and because of this, only a small population can be observed.

Group Process Techniques — Davis (1980), Knowles (1970). Several group process techniques can be used in identifying needs. These techniques include brainstorming, buzz sessions, and nominal group techniques. Nominal group technique is a group process model in which the group identifies, ranks and prioritizes need statements.

Delphi Technique — Davis (1980). The Delphi technique is a process for gathering opinion from a number of people who are not assembled at the same time. The process involves the ranking of needs by anonymous participants who reach some degree of concensus about their importance. A selected panel of members analyzes these responses and makes decisions based on the responses. The Delphi technique is a relatively inexpensive model, but it does require considerable time to complete the process.

Testing — Davis (1980), Knowles (1970), Barbulesco (1976). Tests can be used to measure skill, knowledge and attitudes, and to indicate any gap between the current condition and the desired. Data obtained from standardized tests allows for the comparision of groups.

Task Force or Committee — Davis (1980), Barbulesco (1976). A task force or committee may be assigned to determine needs. After analyzing the problems, the task force releases a report which outlines the various needs and possible ways to meet those needs.

Hearings — Davis (1980). A public hearing represents a method for assessing needs that is useful for obtaining information from persons outside the school system or organization. Notification is usually published in the local newspaper. Those attending are given the opportunity to ask questions, make comments and express opinions. The results may be summarized later for use in the ranking of needs.

Workshops — Davis (1980). Workshops may indicate some training needs for those attending. These needs may be noted through observation or through the workshop evaluation.

Slip Writing — Davis (1980). Slip writing is usually performed at the conclusion of a workshop or training session. Each person is given a number of index cards and is asked to respond to questions concerning training needs. At a signal, each person starts writing down their responses. At the end of the time limit, the cards or slips of paper are collected and analyzed.

Card Sort — Davis (1980). Card sort is a forced choice method for identifying training needs. Potential needs are typed on index cards. These cards are then sorted by the respondent according to perceived personal need.

Studying Students -- Davis (1980). Studying students is another method to identify needs of their teachers. If students have needs not being met, this may indicate their teachers have a need for additional training.

External Consultants -- Barbulesco (1976). The analysis of needs by a consultant or someone outside the organization is another method. The consultant should become familiar with the goals and requirements of the organization before performing any analysis of needs.

Requests -- Barbulesco (1976), Kempfer (1955). Requests for training needs may also come from people within the organization or from the community.

Hunches -- Barbulesco (1976), Kempfer (1955). The use of hunches or intuitive guesses to determine or prioritize needs is a widely used informal needs assessment method. This method can provide reliable information, or it may just reflect the prejudices or opinions of the person or group performing the needs assessment.

Characteristics of Good Needs Assessment Practices

No matter what data collection method is used, there are several common characteristics of good needs assessment methods. Witkin (1975) described the seven characteristics of a good needs assessment as: (1) completeness, (2) tested, (3) evaluated, (4) replicable, (5) cost in line with benefits received, (6) contains a clear management structure, and (7) includes the participation of the community.

The Training Needs Assessment Task Force (Davis, 1980, p. 41, 42) identified a number of good practices through observing needs assessments. The practices are based "on the assumption that the primary purpose of conducting a

needs assessment is to gather information for developing an effective inservice education program."

According to the task force (Davis, 1980, p. 41, 42):

1. the needs assessment should be an ongoing process,

2. programming should be flexible to allow for changing needs,

3. programming should reflect expressed needs,

4. the planning and construction of the needs assessment plus the decision making process should involve the participants in the inservice program,

5. information for the needs assessment should come from more than one source and using different techniques,

6. valid and reliable data collection techniques must be used,

7. individual as well as group needs should be identified, and

8. information gained through a needs assessment should be disseminated to those involved, thus helping to establish credibility for any new programs that are developed.

Need assessments are but one step in the development of a systematic approach to staff development for inservice educators. Wood, Thompson and Russell (1981) describe a systematic approach by stages with needs assessment in the middle or planning stage. Models (Kaufman, 1972; Coffing, 1974; Lee, 1973; Harless, 1975) emphasize a systematic approach to staff development with needs assessment as an integral part. The various data collection methods that can be utilized in performing a needs assessment reflect a systematic approach to staff development.

Staff Development and Teacher Centers

Inservice education can be defined as "all activities engaged in by the professional personnel during service and designed to contribute to improvement

on the job" (Haas, 1957, p. 13). In the past, the term, "inservice", was used by educators in reference to programs promoted by the administration and supervisory personnel which encouraged the professional growth and development of educational personnel (National Education Association, 1966).

In a recent position paper, the National Education Association (1982) suggests the use of the term, continuing education, and two subordinate terms, staff development and professional development, rather than inservice education. The N.E.A. suggests that the term, inservice, lacks precision and has a negative connotation in light of current trends toward more teacher involvement in planning their own professional development.

The National Education Association (1982, p. 3) defines continuing education as "an activity undertaken by professional education personnel to add to or refine their professional knowledge and skills." The N.E.A. writes that staff development is a form of continuing education that is usually mandatory and is undertaken by a whole faculty (or subunit of it) to improve the school program. Professional development, however, is a voluntary form of continuing education that is undertaken by individual professionals to improve themselves as professionals.

Dillon-Peterson (1981) defines staff development as "a process designed to foster personal, professional growth for individuals within a respectful, supportive, positive organizational climate, and having as its ultimate aim, better learning for students and continuous, responsible self-renewal for educators and schools" (p. 3). Caldwell and Marshall (1982, p. 26) write that staff development activities "are designed to enhance an institution through the promotion of the personal-professional growth of the administrative and/or instructional staff of the institution."

The rationale for inservice or continuing education programs centers on the difficulty the educator faces in remaining current with the changes in his or her profession as well as in society as a whole. The National Staff Development Council recognizes those pressures and demands affecting the educator in a 1980 policy statement.

In a 1980 policy statement, the National Staff Development Council wrote:

> Emerging societal pressures impinge relatively quickly on schools in new and sometime conflicting ways. Schools feel the need to prepare teachers for new roles. Teaching responsibilities have constantly been expanded and teaching materials are becoming increasingly complex. Demands from citizens and demands for more involvement and self-determination from teacherss are changing the organization and function of schools and school personnel.... One idea continues to be almost universally accepted...that is that the cornerstone of quality education is what happens between the individual teacher and the student. It is also generally agreed that if there is to be adequate growth in student performance and attitudes, primary consideration should be given to improving the way in which teachers (and those who support their efforts) work in the schools. It is understandable, then, that there is a steadily growing emphasis at all levels of education on the continuous professional growth of school personnel.

Dillion-Peterson (1980, p. 2) summarizes the factors today which necessitate staff development education programs. These include the need to prepare teachers for new roles, expansion of teaching responsibilities, increasing

complexity of teaching materials, and demands from teachers and citizens for more teacher involvement in the organization and function of schools.

Educators are also beginning to realize that continuing education programs are necessary so that the field of education can acquire a higher status as a profession (Yarger and others, 1977). Other professions such as medicine, law, architecture, etc., emphasize the need for their members to remain current with new discoveries or advances in their respective professions. Many educators believe their profession must also require or strongly encourage its members to participate in some form of continuing education or professional development in order to be truly called a profession.

In recognition of these and other concerns, staff development legislation has been passed in several states, including Oklahoma, Michigan, New York, Rhode Island and Florida. As a general rule, the new legislation in these states mandates the planning of staff development activities and programs in individual school systems, and requires a large amount of teacher input in the planning of staff development programs.

A number of approaches to staff development programming have been identified. Caldwell and Marshall (1982) have identified four approaches: (1) smorgasbord, (2) central office, (3) teacher-centered, and (4) school improvement. Caldwell and Marshall categorize these approaches along two different dimensions. The first dimension measures the degree to which the approach is designed to meet institutional needs. The second dimension measures the degree to which the approach is designed to meet individual staff needs, which may or may not reflect the needs of the institution (See Table 2).

Table 2

Four Approaches to Staff Development Programming

(Caldwell & Marshall, 1982)

		INSTITUTIONAL NEEDS EMPHASIS	
		Low	High
INDIVIDUAL NEEDS EMPHASIS	Low	Smorgasbord	Central Office
	High	Teacher Centered	School Improvement

The Smorgasbord approach has neither institutional nor individual emphasis. Leadership is typically provided by an administrator who has little or no background in staff development. Generally, no needs assessment data are collected for program planning. Instead, most programs are based on hunches or as a reaction to highly visible concerns. Typically, this form of staff development is used by school districts as a response to state mandated or school board inservice programs (Caldwell and Marshall, 1982).

The central office approach is similar in many ways to the smorgasbord approach in that the leadership is provided by an administrator. However, in this approach, a needs assessment is usually conducted through the central office staff, with the emphasis on institutional program needs and concerns. There is little or no contact with teachers about their personal/professional needs. As a result, the staff development programs generally emphasize insitutional needs over individual teacher needs (Caldwell and Marshall, 1982).

The teacher-centered approach is the converse of the central office approach in that the leadership is provided by the instructional staff. Programs focus mainly on the perceived needs of teachers with the needs of the administration or institution receiving little emphasis. A needs assessment is usually performed in order to identify professional and personal needs of teachers. Since the teacher-centered approach focuses on areas of high teacher interest, this form of staff development is likely to obtain higher teacher commitment than either the smorgasbord or central office approaches (Caldwell and Marshall, 1982). The teacher-centered approach is the basis for much of the recent staff development legislation passed in several states.

The school improvement approach attempts to provide professional development for both the administrative and instructional staff. It focuses on both institutional and individual needs and for that reason is considered a more complete approach to staff development than the other approaches. Governance for the staff development program is through central office administration in cooperation with a fulltime program coordinator and an advisory committee representing the program constituents. The needs assessment is based on a variety of data sources. The school improvement approach mandates district support. Both instructional and administrative staffs are involved in determining and prioritizing needs and planning programs (Caldwell and Marshall, 1982).

Nicholson and others (1977) classify inservice or continuing education into five different types: (1) job embedded, (2) job related, (3) credential oriented, (4) professional organization-related, and (5) self-directed.

Job embedded inservice is professional growth which takes place while the teacher is engaged in teaching. Job-embedded training can include committee work for program planning, interaction in team teaching, interaction

with consultants and professional reading and curriculum study (Nicholson and others, 1977).

Job related inservice can take the form of workshops where teachers work together to identify and solve a common problem, as well as teacher exchanges and visits. Nicholson and others (1977) identify teacher centers as one method for job related inservice which allows self-pacing and self-timing for teachers.

Credential oriented inservice is for the purpose of obtaining new or advanced credentials through the completion of courses at institutions of higher learning (Nicholson and others, 1977). More educators are participating in this form of continuing education as states toughen requirements for certification and re-certification of teachers.

Professional organization-related inservice is based on the belief that a profession should take responsibility for itself in establishing and controlling membership requirements. One way of maintaining a high standard of quality is through the continuous upgrading of skills through some form of professional development (Nicholson and others, 1977).

Self-directed inservice is teacher-directed and is based on what the individual teacher perceives as his or her need. In this approach, the teacher is viewed as a professional who is able to perform a self assessment and to seek out solutions with the motivation and the direction for learning. An example of this is the sabbatical leave used for self study and professional renewal (Nicholson and others, 1977).

Researchers and educators have identified a number of assumptions about staff development programs that have proven successful. Woods, Thompson and

Russell (1981, pp. 61-63) have arrived at eleven generalizations about effective staff development programs, based on the research of others. These include:

1. school personnel should be involved in inservice education in order to remain current and effective in their professional work,
2. improvement in educational practices takes time and is the result of longrange staff development programs,
3. inservice education has a positive impact on quality of school programs, and helps improve a teacher's ability to perform professional responsibilities,
4. adult learners are motivated to risk new behaviors when they believe they have control over the learning situation and are free from threat of failure,
5. educators possess a large range of professional skills,
6. professional growth requires commitment to new performance norms,
7. certain social climate factors such as trust, open communication and peer support positively affect the success of inservice programs,
8. the school unit is the primary unit of change,
9. the individual school district should bear the major responsibility for providing inservice growth opportunities,
10. the gatekeeper for the introduction and adoption of new educational practices is the school principal, and
11. effective inservice programs should be based on research, theory and the best educational practices.

Staff development research has disclosed several characteristics of effective practices in inservice education. Mangieri and McWilliams (1976) identified three effective practices, based on a research study using the Teacher Corps project. Mangieri and McWilliams concluded from their research:

1. in effective staff development programs, educators were actively involved in the determination of inservice programs and possible options,

2. both teachers and instructional leadership should be involved in needs assessment to determine inservice programs, and

3. one-shot staff development activities are not effective in producing any real change.

Zigarmi, Betz and Jensen (1977) studied staff development programs in schools throughout the state of Texas and arrived at several conclusions. First, it was found that staff development programs based on teacher interest were more effective than those built on administrative directives or perceptions. Secondly, it was found that teachers preferred learning from fellow teachers rather than from other sources. They also concluded that the presentation of new ideas and methods proved more useful for teachers than a review of current or past methods. Thirdly, extended inservice, or the use of followup activities, was perceived by teachers as being more effective than "one shot" or "quickie" inservice programs.

After reviewing a number of staff development programs, Olivero (1977) identified five characteristics common to the successful ones. Olivero concluded that in successful staff development programs:

1. the objectives of the program were derived from teachers' need assessments,

2. teachers were given a choice of the type of inservice programs in which they wished to participate,

3. school administrators work with teachers in designing staff development programs,

4. inservice is an ongoing process and not limited to specific days and times, and

5. rewards of some type are available to educators participating in inservice programs.

Several research studies (Edelfelt, 1974; Mangieri and McWilliams, 1976; Nicholson and others, 1977; Bush, 1971; and Caldwell and Marshall, 1982) have indicated that as a general rule, successful staff development programs have a high level of teacher involvement in deciding the activities to be offered and in planning and administering the inservice program.

Because of the evidence that teacher involvement greatly affects the success of staff development programs, different methods have been tried to increase this involvement. One such method is the district or regional teacher center.

According to Buxton (1979, p. 10), "teachers' centers are places and programs for staff development that are designed and used by teachers on their own volition to fill their self identified training and curriculum needs."

Teacher Centers: A Staff Development Model

The federal Teacher Center Program as a model for determining, developing and delivering teacher-focused sraff development has gained new importance in light of recent state legislation. The State of Oklahoma passed legislation requiring teacher-determined staff development (Oklahoma House Bill

1706) taking effect July 1, 1981. Similar legislation has been passed in other states.

The Oklahoma legislation requires a needs assessment be performed and staff development activities be determined from that needs assessment. A staff development plan must be submitted detailing which needs are to be addressed and how the assessed needs are to be met over a period of time. The needs assessment is to be a formal assessment procedure.

Federal teacher centers are also required to perform a formal needs assessment as part of the application process. The needs assessment and staff development activities generated from this assessment occur on a local level. In this way, teacher centers in Oklahoma are able to carry out state legislation which mandates teacher-directed and local staff development.

The teacher center concept has developed as a place where teachers could receive help in immediate and everyday problems they face in teaching, and serve as a link between pre-service and inservice training. The teacher center can be both a resource/production area and a center for staff development. Oklahoma H. B. 1706 mandates local staff development activities and structures the administration of these activities much like the federal Teacher Center Program legislation.

Teacher centers were intended to meet staff development needs not addressed by other existing forms of inservice education. Edelfelt (1978, p. 9) writes:

> A key distinction between teachers centers as a mode of inservice education and other kinds of staff development may be that the personal and professional growth of the teacher takes precedence over school improvement. Teachers centers have a

direct relationship with individual teachers, and first and foremost address those teachers' needs.

There are approximately 300 teacher centers identified by the Teachers' Centers Exchange operating in rural, urban and suburban settings in the United States. Seventy-two of these are federally-funded or subsidized. The remainder receive most of their support from state or local funding sources. The Oklahoma legislation (HB 1706), through staff development administration, allows the local educators to organize their staff development programs along the broad guidelines of teacher centers.

Federal teacher centers are required by federal regulations, as presented in the 1965 Higher Education Act, to show evidence of having conducted a needs assessment of the target educator population at the time the proposal for funding is submitted. However, the regulations do not require continuous needs assessment of the educator population once the grant is received. Federal regulations, HR5192, (Higher Education Act) , intend that the program developed by the grant recipient be based on areas identified by the needs assessment. Regulations, however, do not require a specific structure or method for performing the needs assessment, but allow each prospective grant recipient to establish how the assessment will be performed. The Oklahoma legislation is essentially parallel with the federal regulations, requiring the needs assessment before funds can be made available for local expenditure and only requiring a review of needs for each new funding period.

Many times after a teacher center grant is received, the planning of programs is not based on results obtained from the original needs assessment. According to Edelfelt (1980, p. 6), the planning of programs based on the original needs assessment does not insure success.

> Many of the needs assessments were conducted on a total population or on a random sample of it. In practice, teacher centers serve only a segment of the teacher population, and some say that segment is not representative...survey-type needs assessments have not been overwhelmingly successful. Some programs that have been planned on needs identified in surveys have had few takers.

Teacher centers that do use the original needs assessment in planning staff development activities often find that they are basing programs on needs identified two or more years in the past, due to the time lag between proposal writing, proposal funding and operationalizing the center. Many of these identified needs are temporal, and no longer relevant.

To deal with this problem, some teacher centers do not use the original needs assessment at all for staff development programming. Exactly what the teacher centers do use is not public knowledge at present. Edelfelt (1980) surmises that many of the programs "are the result of informal discussions with teachers, interviews that are not representative, and just plain intuition." It is yet to be seen how Oklahoma staff development projects are to use needs assessments in establishing ongoing professional development programs.

A teacher center documentation project conducted through Syracuse University documented the activities of 39 federal teacher centers in their first year of operation. Their findings showed:

> Most teacher center activities are offered because teachers ask for them. Interestingly, teacher requests that result in activities are most often informal. The teacher center staff plays a very important role in translating teacher requests into programs. Although the formal needs assessments and project objectives

> define the parameters within which specific requests are condsidered, these seem not to determine specific activities. For example, the formal needs assessment might have revealed that teachers desire information on using computers in instruction. However, the actual decision to offer a workshop on computer assisted instruction in math in October at a certain school would likely be in response to a specific teacher request (Mertens, 1981, p. 112).

Whether formal, informal, or a combination of approaches, the needs assessment is often translated into piecemeal programs that involve only one session or a single topic. These programs are not necessarily conducive to development of a curriculum or long range staff development program. For these reasons, Edelfelt (1980) has called the issue of needs assessment "one of the nine most critical issues" facing teacher centers.

Since teacher centers are a model for staff development, it is useful to study the type of needs assessment methods (formal and informal) used in deciding to offer activities. The success of these methods in determining staff development activities can be generalizable to other forms of staff development.

In summary, needs represent the discrepancy or gap between the present condition and a desired condition. The establishment or determination of needs and the priorities for action in resolving those needs is the role of the needs assessment.

There are a variety of models for performing need assessments. The models share these common aspects: concept of need; scheme for identifying the

components, data collection methods, and interpretation. There are two types of needs assessment methods: formal and informal.

Needs assessments are considered part of a systematic approach to staff development programs. Legislation in a number of states now require some form of needs assessment be performed, for staff development programs in the local school districts. The Federal Teacher Center Program was established as a delivery system for staff development programs on the local level. The centers were required to use needs assessments to establish program goals.

Since staff development was the main mission of the Federal Teacher Centers, they provided a good source for investigation of the role of needs assessments in determining staff development activities.

CHAPTER III

METHODOLOGY

Federally-funded teacher centers were selected as the population for this study. Of the 72 federal teacher centers operating in the spring of 1982, 38 were chosen for the study sample. The teacher centers used in the sample, with two exceptions to be discussed below, were all those entering at least their second year of federal funding as of September 1981. This criterion was used in selecting teacher centers for the study because it was reasoned that those centers with at least one year of programming experience have had the opportunity to sponsor a variety of inservice and staff development activities. For this reason, their input would be of more value than teacher centers which have been operating for less than a year.

The names of the teacher centers used in the study were obtained from a list of federal teacher centers which included information on the year of operational funding. Two third-year centers were excluded from this study. One teacher center has not been in continuous operation and the other center's director is conducting this research.

The Instrument

An instrument in the form of a questionnaire was mailed to directors and/or co-directors of the teacher centers selected for the study. A specimen copy of the questionnaire is included in Appendix A.

The questionnnaire was divided into three main parts. Part 1 asked for general information, such as name of the teacher center, name and position of person filling out the questionnaire, address of the teacher center and phone

number. This information was used for follow-up phone calls and letters in case of incomplete or unclear answers.

Part 2 asked respondents to list three staff development activities offered by the teacher center that they perceived as "more successful" and three that were perceived as "less successful." In Part 2, an "open form," as advocated by Borg and Gall (1978), was utilized to allow for maximum input from respondents. Respondents were asked to provide an activity name or description of the "more successful" and "less successful" activities. Other information was solicited about each activity, including: the target audience, potential and actual number of participants, total hours and days, time of day offered, and the means used by the respondent in assessing the effectiveness of the staff development activity.

Part 3 of the questionnaire required the respondent to identify the three most important reasons for offering each staff development activity listed in Part 2. Respondents were given 17 different items for which they could check the reason for offering each staff development activity. In the instructions, respondents were asked to check as many that applied for each activity: however, respondents were also asked to designate the first and second most important reasons or sources for offering each activity.

Through an analysis of items checked in Part 3, it was possible to determine whether the source for offering the staff development activity came from formal or informal needs assessment sources or from prescribed or mandated means. The 17 items were broken down into three different categories: (1) items that relate to the use of formal needs assessments, (2) items that relate to the use of informal needs assessment, and (3) items that

relate to prescribed or mandated programs from agencies that are external to the teacher center.

The items in the questionnaire relating to the use of formal needs assessments are:

1. formal needs assessment in the original grant application,
2. formal needs assessment completed more than six months from the time of the activity,
3. formal needs assessment completed less than six months from time of the activity, and
4. teacher center grant objective.

Items indicative of informal needs assessment processes in the questionnaire include:

1. policy board decisions,
2. classroom teacher request,
3. teacher group request,
4. request of local teacher organization,
5. involvement in teacher project(s), and
6. teacher center staff through observation, discussion, etc.

Questionnaire items reflecting prescribed programs or external requestion are:

1. school system objectives,
2. administration request or directive,
3. external request,
4. request of higher education institution,
5. required due to curriculum update or change, and
6. federal, state or local requirement.

Items in Parts 2 and 3 of the questionnaire were adapted from items used by Mertens (1981) in investigating characteristics of staff development activities and the sources for offering those activities.

Two separate reviews of the instrument were made by staff development professionals. Their input and suggestions were incorporated into the final instrument, thus helping improve validity and reliability.

The first version of the questionnaire was presented to a group of five staff development professionals at a regional staff development meeting. Their input concerning the questionnaire's instructions and the appropriateness and wording of individual items were incorporated into a revised questionnaire.

The revised questionnaire was then mailed to a pilot group consisting of directors of three federal teacher centers. Those in the pilot group were selected because they had been involved in staff development in a managerial role for four or more years. The teacher centers in the pilot group were not included in the actual sample.

Questionnaires from the pilot group were studied and appropriate revisions made to the instrument. Two respondents in the pilot group took umbrage to the request for listing of "successful" and unsuccessful" activities. They did not like the labeling of any teacher center activity as "unsuccessful." For this reason, one major revision made following the piloting was changing the categories to "more successful" and "less successful."

Part 2 originally contained the category , "Reason for Attendance." All of the pilot group respondents, when contacted by telephone as a follow-up to the questionnaire, felt this category was too "global," since each participant would have his or her own reason for attending and that reason may be unknown

to the director of the teacher center. The category, "Reason for Attendance," was dropped from the questionnaire.

Another major change following the piloting was the addition of a category for externally-prescribed activities in Part 3 of the questionnaire.

Those in the pilot group answered all questions and returned their questionnaires. After the receipt of the questionnaires, this writer made a phone call to each respondent. The purpose of the call was to explore further any comments made in the questionnaire and to elicit general impressions about the questionnaire. The revised questionnaire was then sent to teacher centers in the sample.

Analysis of Data

The first step in analyzing the results was to prepare sub-categories for the different response categories in Part 2. Part 2 of the questionnaire used an "open" response style, so this writer had to study all the returned questionnaires and determine response categories which would adequately describe the variety of responses given in the questionnaire. The categorization of responses was also necessary so that the data could be coded for computer analysis.

The largest variety of responses were given to the item, "Activity Name or Description." Merten's (1981) classification of teacher center activities was used to categorize the variety of staff development activities mentioned by teacher center directors in Part 2. The categories were: (1) curriculum, (2) children with special needs, (3) pedagogy, and (4) client groups.

According to Mertens' (1981) classification, curriculum activities are those which address curriculum needs. They can include all types of subject matter taught children, such as basic skills, survival skills, standard program

areas, special interest areas and even those subjects which may not be part of the standard school curriculum.

Staff development activities concerning children with special needs help teachers better understand and serve children identified as needing special attention, including, the gifted, handicapped, culturally deprived, and economically disadvantaged (Mertens, 1981).

Pedagogy refers to activities which help teachers relate to students in an instructional setting. This classification includes instruction, instructional management, classroom management, materials, understanding instruction, curriculum development, media, and educational equipment (Mertens, 1981).

Client group activities are those that meet the specific needs of a particular group of educators in areas such as subject taught, school assignment, grade and other specialized fields (Mertens, 1981).

In Part 2, respondents were asked to indicate the "Target Population" for each activity. Five categories were developed to fit the variety of responses. They were: elementary classroom teachers, secondary classroom teachers, educators in specialty areas (eg. reading, learning disabilities, speech and hearing), administrators and other educators not contained in the previous categories.

The item, "Total Hours and Days," reflects the number of hours and number of sessions for each staff development activity. "Total hours" was classified in the following manner: (1) 1 to 2 hours, (2) 3 to 5 hours, (3) 6 to 10 hours, (4) 11 to 20 hours, and (5) 21 or more hours.

Respondents were also asked to provide the number of days or sessions the activity was spread over. The following categories were devised: (1) 1 day only, (2) 2 days, (3) 3 days, (4) 4 days, and (5) 5 or more days.

The item "Time of Day," was derived from Mertens (1981) and was broken down into the following categories: (1) during school hours, (2) after school, (3) evenings, (4) during the weekend, (5) occuring on a professional day, (6) during workday and extending into after hours or the weekend, (7) during a scheduled school break such as summer vacation, Christmas, etc., and (8) other.

The final item in Part 2 is "Means of Assessing Effectiveness of Activity." The responses were broken down into three categories: (1) teacher or participant evaluation of activity, (2) general perception of the teacher center director or person answering the questionnaire, and (3) level of participation.

Once the data were collected and a classification system devised for response variables, the next step was to prepare a description of what had been observed. A description of the data was obtained through a frequency distribution.

According to Kerlinger (1964), frequency distributions are primarily used for description purposes. Brown (1973) writes that frequency distributions are descriptive in nature and are used to describe the performance of a particular group, or to compare the performance of two or more groups.

A one-way frequency analysis was performed on all categories of the items in Part 2, including: activities judged as "more successful" and "less successful," "Description of Activities," "Target Population," "Potential Number of Participants," "Actual Number of Participants," "Total Hours Attended," "Number of Sessions" for each activity, "Time of Day" held, and "Means of Assessing Success of Activity." Results of the frequency analysis indicated the frequency of response for each variable classification and percentage of the total response.

A frequency analysis was also performed on items A through R of Part 3. These items denoted the processes or sources used by teacher centers in deciding to offer the staff development activities they listed in Part 2. As reported earlier, these items were classified by this researcher into three categories: formal-style needs assessments, informal-style needs assessments, and prescribed activities. The frequency count indicated the number of responses that fell into each of these three categories.

A chi-square was also performed on each of the categories for the items in Parts 2 and 3 of the questionnaire, using the procedures found in the Statistical Analysis System package (Ray, 1982). Chi-square is a nonparametric statistic used when data are in the form of frequency counts. It is most often used when the type of data in the frequency count is discrete rather than coutinuous. However, it can also be used to lump variables that are continuous in nature into several broad categories.

Chi-square, as a test of statistical significance, is used to determine whether a systematic relationship exists between two variables. This is accomplished by computing the cell frequency which would be expected if a relationship did not exist between the variables (Nye, 1975, p. 273). The expected cell frequencies (or what would normally occur by chance) are then compared to the actual frequencies found in the data. The greater the discrepancies between the expected and actual, the larger the chi-square. A chi-square table is then consulted to determine whether a particular chi-square value has reached the level of significance chosen for the study. In this study, the level of significance was set at .05. Small values of chi-square indicate the lack of a relationship. However, a large chi-square implies a relationship of some kind exists between the variables under study.

The chi-square, as performed on each of the items in Part 2 of the questionnaire, was used to compare the weighted frequency with the expected frequency. Chi-square results indicated the probability, if any, of a relationship between the relative success of the activity and the various characteristics of individual activities, as contained in Part 2 of the questionnaire.

Similar comparisons were made with the other items from Part 2:

(1) success of activity by target population,

(2) success of activity by number of participants,

(3) success of activity by total hours attended,

(4) success of activity by means of assessment, and

(5) success of activity by number of sessions.

The weighted frequency was derived by assigning sources for staff development activities in Part 3 a numerical value: (1) the most important source in deciding to offer the activity was assigned a "3," (2) the next most important source was given "2," and (3) other reasons a "1." The weighting occurred by allowing the most important source to be counted three times, the next most important source twice, while other sources were counted as only one. In some instances, respondents did not categorize important sources or reasons as "most important" or "second most important."

A frequency analysis was also performed on items A through R of Part 3. These items denoted the processes or sources used by teacher centers in deciding to offer the staff development activities they listed in Part 2. As cited earlier, these items were classified into three categories: (1) formal needs assessment, (2) informal needs assessment, and (3) prescribed activities. The frequency count indicated the number of responses for these three categories.

A chi-square was also performed on each of the three categories in Part 3, using the Statistical Analysis System (Ray 1982) frequency program for multiple populations. The chi-square was used to compare the actual frequency with the expected frequency. Results from the chi-square indicated the probability of a relationship (if any) between the relative success of the activity and the idea/source for deciding to offer that activity. The expected frequency for each cell was to be equal and goodness of fit was also assumed to be equal.

Chi-square by itself helps determine whether the variables being studied are related or independent. It does not indicate how strongly they are related. Part of the reason is that sample size and table size influence the chi-square. Several statistics are available which adjust the chi-square for these factors.

Cramer's V is one such statistic that becomes the basis for assessing the strength of the relationship. In this statistic, V can range from 0 to +1. These values represent the two extremes, with 0 indicating no relationship exists and +1 indicating that the two variables are perfectly related. The larger the value of V, the higher a degree of association exists (Nye, 1975).

Cramer's V was computed for all the different comparisons for which a Chi-squre statistic was derived. Cramer's V helped determine the strength of the relationship (if any) between relative success of the activity and the idea/source for offering the activity, and between relative success and characteristics of staff development activities contained in Part 2 of the questionnaire.

A discriminant function analysis was also considered for use in this research in order to study the relationship between relative success of the

activities and the idea/source for offering them. Items in Part 3 of the questionnaire were to be analyzed using discriminant function analysis in order to study the relationship between relative success of the activities and the idea/source for offering them. Items in Part 3 of the questionnaire were to be analyzed using discriminant function analysis.

The discriminant function analysis did not prove to be a viable statistic for this study. The sample size was too small for a sufficient cell size for analysis. For this reason, the results of the discriminant function analysis are not reported in the Findings Chapter.

Discriminant function analysis is a regression equation which maximally discriminates or distinguishes between categories of the dependent variable (Statistical Package for the Social Sciences, 1975). According to Kerlinger (1973), discriminant function can be used in two ways: for classification and diagnostic purposes, and for studying the relationships among variables. In this study, discriminant analysis was to be used to study the relationship between activities perceived as "more successful" or "less successful" and the idea/source for offering them.

Discriminant function analysis is used to distinguish between two or more groups of cases. To distinguish between the groups, the researcher would select a set of discriminating variables that measure characteristics on which the groups are expected to differ (Statistical Package for the Social Sciences, 1975).

The discriminating variables in this study were contained in Part 3 of the questionnaire. They included items A through R which were classified into the three different reasons or idea/sources for offering the activities: Formal-style needs assessment, informal-style needs assessment and prescribed. The

discriminant analysis was expected to measure the success by which those three variables discriminated between activities perceived as "more successful" and those perceived as "less successful."

CHAPTER IV

FINDINGS

Thirty-eight questionnaires were mailed to operating teacher centers in May 1982. Of this number, (see Appendix B) twelve were returned. Telephone calls to the centers not responding brought five additional returns. A reminder letter brought one additional return for a total of eighteen responses. When the non-responders were called a second time, it was discovered that of the twenty called, twelve of the number had been disconnected and were no longer in service. Two teacher centers were contacted, with the remaining not answering the telephone call. No new responses were received.

The lack of response to follow-up mailings and phone calls was due to the disbanding of many teacher centers throughout the nation. The U.S. Department of Education was required through legislation to combine a number of categorical programs into block grants to be administered by the states and local education authorities. Teacher center programs were among these programs. Teacher centers were notified that no funds would be set aside for continuation of the projects and current fund authorizations would expire September 30, 1982.

Teacher centers were not required to complete final reports. Without final reports, only the financial report remained to be turned in to the local education authority for the teacher center. The local education authority could then spend the remaining money allocated to the teacher center on programs specified in the block grant legislation. As the dissolving of teacher centers became imminent, a number of teacher center directors began to seek other employment. Teacher centers were quickly disbanded or absorbed into the

functionings of the local education authority. As a result, many teacher centers had ceased operation or were in the process of doing so when questionnaires were being collected. This contributed to the lower number of completed questionnaires.

Once received, responses for the questionnaires were categorized in the following manner for Part 2.

Table 3

Categories Selected for Questionnaire

Responses in Part 2

Description of Activity

1. Curriculum
2. Children's needs
3. Pedagogy
4. Client group

Activity Rating

1. More Successful
2. Less Successful

Population

1. Classroom teacher, elementary
2. Classroom teacher, secondary
3. Special teachers
4. Administrators
5. Support personnel
6. Individual schools
7. Subject area
8. Total population

Potential Number of Participants

1. 1-25
2. 26-50
3. 50-100
4. 100-250
5. 250 and above

Actual Number of Participants

1. 1-5
2. 6-10
3. 11-20
4. 21-50
5. Above 50

Total Hours

1. 1-2
2. 3-5
3. 6-10
4. 11-20
5. 21 +

Number of Sessions

1. 1
2. 2
3. 3
4. 4
5. 5 +

Time Activity Was Held

1. During school hours

2. After school

3. Evening

4. Weekend

5. Professional day

6. Other than workday (summer)

7. Other

Assessment of Activity

1. Participant evaluation

2. Perception of director

3. Number of participants

In Part 3 of the questionnaire, the idea/source for offering the staff development was coded in the following way:

1. Formal needs assessment

2. Informal needs assessment

3. Prescribed

The items in Part 3 of the questionnaire fell into one of three categories: formal needs assessment, informal needs assessment and prescribed.

Results of Frequency Analysis

Of the activities reported by respondents, 39 were judged by respondents to be "more successful" and 35 as "less successful" for a total of 74 activities. More activities fell into the category of educational pedagogy than any other single category. Next in order were: specific client groups, curriculum and specific children's needs (See Table 4). One activity involving multiple activities could not be placed in any of these categories and was considered as uncategorized.

Table 4

Frequency Analysis of

Description of Activities

ACTIVITY	FREQUENCY	PERCENT
Curriculum	18	24.33
Children's Needs	7	9.46
Pedagogy	26	35.13
Client Group	22	29.73
Uncategorized	1	1.35
TOTAL	74	100.00

Forty-nine of the total number of activities (66.2%) were directed at the total Educator population. Elementary classroom teachers was the target population group for eight (10.8%) of the activities and individual school populations accounted for seven (9.5%). Secondary classroom teachers as a group were the target audience for six of the activities, or 8.1% of the total. Subject area groups were the population for two activities (2.7%) while special teachers and teacher support groups were targeted for only one activity, or 1.35% of the total activities. Administrators were not targeted as a specific group for any activity, but were accepted as participants in activities targeted toward the general educator population (see Table 5).

Table 5

Frequency Analysis of Staff Development Activities

According to Target Population

POPULATION	FREQUENCY	PERCENT
Classroom Teachers Elementary	8	10.81
Classroom Teachers Secondary	6	8.11
Special Teachers	1	1.35
Administration	0	
Support	1	1.35
Individual Schools	7	9.46
Subject Areas	2	2.70
Total Educators	49	66.22
TOTAL	74	100.00

The time duration of activities varied from one to over 21 contact hours. Over thirty percent of the activities were from one to two contact hours. Nearly 21.7 percent were from three to five hours in length and nearly 21.3 percent were from six to ten hours in length. Only nine and one-half percent were from 11 to 20 hours in duration. Activities over 21 hours in duration made up 16.2 percent of the total, or 12 activities. There was one activity counted for 0 hours because it was cancelled and a second activity did not have sufficient data to classify (see Table 6).

Table 6

Frequency Analysis of Staff Development Activities According to Hours Attended

HOURS	FREQUENCY	PERCENT
0	2	2.70
1-2	22	29.73
3-5	16	21.62
6-10	15	21.27
11-20	7	9.46
21+	12	16.22
TOTAL	74	100.00

Fifty-eight percent (43) of the activities were held after school while 18.9% (14) of the activities were held during the school day. Only one (1.4%) activity was held at night and five (6.8%) activities were held during the weekend. The time of day for two (2.7%) of the "less successful" activities was not reported because one was not attended and the other not reported. Two (2.7%) activities occurred on a professional day, three (4.1%) during the summer or on a holiday and four (5.4%) at some combination of times (see Table 7).

One activity was cancelled and not reported upon and a second activity was not reported upon in enough detail to complete analysis.

Table 7

Frequency Analysis of Staff Development Activities According to Time Held

TIME	FREQUENCY	PERCENT
0	2	2.70
During School	14	18.93
After School	43	58.12
Evening	1	1.35
Weekend	5	6.75
Professional Day	2	2.70
Weekday other than workday (summer)	3	4.05
Other	4	5.40
TOTAL	74	100.00

The category, "potential number of participants," showed that the highest percentage of activities was directed at 250 or more participants for 36.5% of the total, or 27 activities. The next highest number of potential participants is from 36-50, with 19 activities so designated, or 25.7%. The third most frequent category is from 1 to 25 potential participants for 18 activities, or 24.3%. The fourth and fifth categories cover the range of 50 to 250 potential participants, or 13.5% (see Table 8).

Table 8

Frequency Analysis of Staff Development Activities

According to Potential Number of Participants

NUMBER	FREQUENCY	PERCENT
1-25	18	24.32
26-50	19	25.68
51-100	7	9.46
101-250	3	4.05
250+	27	36.49
TOTAL	74	100.00

The actual number of participants varied from zero (for activities scheduled but not attended) to 14 activities with 51 or more participants, or 18.92% of the total. The most frequent number of participants was in the 21 to 50 range, with 22 activities (30%) having that number of participants. Fifteen activities had from 1 to 5 participants, or 20%. Eleven activities had from 6 to 10 participants and another eleven had 11 to 20, for a total of 30% of all activities offered (see Table 9).

Table 9

Frequency Analysis of Staff Development Activities

According to Number of Participants

NUMBER	FREQUENCY	PERCENT
0	1	1.35
1-5	15	20.27
6-10	11	14.87
11-20	11	14.86
21-50	22	29.73
51+	14	18.92
TOTAL	74	100.00

The manner in which the activities were judged as being more or less successful was primarily through the participants' evaluations with a frequency of 48 (64.9%). The next most common method was number of participants,with 18 participants or 23.3% and, finally, through the perception of the person filling out the questionnaire with 8 or 10.8%. Results of the frequency analysis indicate the two more frequently used methods of evaluation are participant evaluation and attendance (see Table 10).

Table 10

Frequency Analysis

Means of Assessing Success of Activity

MEANS	FREQUENCY	PERCENT
Participant Evaluation	48	64.87
Director Evaluation	8	10.81
Number of Participants	18	24.32
TOTAL	74	100.00

The categories in Part 2 dealing with general content were categorized as more and less successful. The categories of discrete data were analyzed by actual frequency and percentage.

Of all the activities reported, the highest single percentage of activities were pedagogical in nature and were judged as "more successful" by 21 participants (28.4%). The next highest participant count of 13 (17.6%) was activities directed at client groups that were judged as "less successful" (see Table 11).

Table 11

Frequency Analysis of Success of Activity

According to Activity Type

SUCCESS OF ACTIVITY	ACTIVITY TYPE Curriculum	Children's Needs	Pedagogy	Client Group	No Data
More Frequency	6	2	21	9	
More Percent	8.11	2.70	28.37	12.16	
Less Frequency	12	5	5	13	1
Less Percent	16.22	6.76	6.76	17.57	1.35

The target population for the activities was primarily the entire educator population of the school, with 66.3% (49) of the total. There is a slightly higher percentage of "more successful" activities (36.4%) directed toward the entire population than for the "less successful" activities (29.7%) (see Table 12).

Table 12

Frequency Analysis of Success of Activity According to Target Population

SUCCESS OF ACTIVITY	TARGET POPULATION							
	Classroom Teachers Elementary	Classroom Teachers Secondary	Special Teachers	Administration	Support	Individual Schools	Subject Areas	Total Educators
More Frequency	5	1			1	4	1	27
More Percent	6.76	1.35			1.35	5.41	1.35	36.49
Less Frequency	3	5	1			3	1	22
Less Percent	4.05	6.76	1.35			4.05	1.35	29.73

Of the "less successful" activities, 37.1% (13) had from zero to five participants, while 5.1% (2) of the "more successful" activities had zero to five participants. The highest single percentage of "more successful" activities 41.0% (16) had between 21 and 50 participants. Of the "less successful" activties, 17.1% (6) attracted this number.

As a rule, the "more successful" activities tended to have a greater number of participants. For example, 69.2% (27) fell into either category 4 or 5, attracting 21 or more participants. The "less successful" activities registerd smaller numbers of participants, with 65.6% (23) having between one and ten participants (see Table 13).

Table 13

Frequency Analysis of Success of Activity

According to Number of Participants

	NUMBER OF PARTICIPANTS					
SUCCESS OF ACTIVITY	0	1-5	6-10	11-20	21-50	51+
More Frequency	1	2	1	8	16	11
More Percent	1.35	2.70	1.35	10.81	21.62	14.87
Less Frequency		13	10	3	6	3
Less Percent		17.57	13.52	4.05	8.11	4.05

In total hours held, "more successful" activities seemed to be fairly evenly distributed among all categories. Eighteen activities, or 46.1% of all successful activities, were held between three and ten hours. The "less successful" activities tended to fall in the lower category, with 62.9% (38) of all "less successful" activities held between one and five hours (see Table 14).

Table 14

Frequency Analysis of Success of Activities

According to Hours Attended

	HOURS ATTENDED					
SUCCESS OF ACTIVITY	No Data	1-2	3-5	6-10	11-20	21+
Frequency	1	7	9	9	6	7
More Percent	1.35	9.46	12.16	12.16	8.11	9.46
Frequency	1	15	7	6	1	5
Less Percent	1.35	20.27	9.46	8.11	1.35	6.76

The relative success of the activities was based on either the evaluation of the participants, the perception of the director, or the number of participants. The clear majority, or 35 activities, judged as more successful (89.7%) were judged so based on the evaluation of the participants. Of the "less successful" activities, 37.1% (13) were judged on the basis of participant evaluation. A total of 5.1% (2) of successful activities were judged on basis of the director's perception and 5.1% (2) on the number attending. Of the "less successful" activities, 45.7% (16) were judged on the number attending and 17.1% (6) on the perception of the director.

Of the activities combined, participant evaluation was the single most common reason for judging the relative success of an activity with 48 or (64.8%) falling into this category (see Table 15).

Table 15

Frequency Analysis of Success of Activity

According to Means of Assessment

SUCCESS OF ACTIVITY	MEANS OF ASSESSMENT: Participant Evaluation	Director Evaluation	Numbers Participants
More Frequency	35	2	2
More Percent	47.30	2.70	2.70
Less Frequency	13	6	16
Less Percent	17.57	8.11	21.62

A total of 56.4% (41) of all staff development activities were held for only one session. The next most common number of sessions was five or more, with 20.2% (9) of all activities falling into this category. The majority of "more successful" staff development activities (55.2%) met in only one session. Also, the majority of "less successful" ones (51.0%) met in only one session (see Table 16).

Table 16

Frequency Analysis of Success of Activity

According to Number of Sessions

SUCCESS OF ACTIVITY	NUMBER OF SESSIONS					
	No Data	1	2	3	4	5+
More Frequency	1	21	1	3	3	10
More Percent	1.35	28.38	1.35	4.05	4.05	13.51
Less Frequency	1	20	5	2	2	5
Less Percent	1.35	27.03	6.76	2.70	2.70	6.76

A total of 58.1% (43) of all activities were held after school and 18.9% (14) were held during school. The largest single pencentage of both "less succesful" and "more successful" activities were held after school hours. 43.5%, or 17, of "more successful" activities were held after school hours. 74.2%, or 26 activities, of "less successful" ones were also held after school (see Table 17).

Table 17

Frequency Analysis of Success of Activity

According to Time Activity Was Held

SUCCESS OF ACTIVITY	TIME ACTIVITY WAS HELD							
	No Data	During School	After School	Evening	Weekend	Professional Day	Weekday Other (Summer)	Other
Frequency	1	10	17	1	2	2	3	3
More Percent	1.35	13.52	22.98	1.35	2.70	2.70	4.05	4.05
Frequency	1	4	26		3			1
Less Percent	1.35	5.41	35.14		4.05			1.35

A frequency analysis and chi-square were also performed on Parts 2 and 3, using data that were derived by weighting the responses of the directors in Part 3 of the questionnaire. The weighting was based on how it was determined to offer the activity, with the most important reason receiving more weight than the second most important reason, and the second most important reason receiving more weight than the other important reason(s).

The weighted data was also used to perform a chi-square on the variables in Part 2 of the questionnaire.

The weighting of the activities was performed in the process of assigning weights to the reasons for offering activities in Part 3.

A positive correlation was indicated between success of the activity and the number of participants (chi-square = 109.046, $p > .0001$, 4 Df). Generally, those activities judged as "more successful" had more participants than activities judged as "less successful." For example, 78.2 percent of activities perceived as "more successful" had 21 or more participants, compared with only 28.5 percent of "less successful" activities. A total of 64.7 percent of "less successful" activities had fewer than 10 attending while 6.7 percent of "more successful" ones registered this level of participation (see Table 18).

Table 18

Weighted Frequency and Chi-Square for

Success of Activity by Number of Participants

SUCCESS OF ACTIVITY	NUMBER OF PARTICIPANTS 1-5	6-10	11-20	21-50	51+
Frequency More	7	4	41	72	40
Percent More	13.46	11.11	83.67	76.60	76.92
Frequency Less	45	32	8	22	12
Percent Less	86.54	88.89	16.33	23.40	23.08
	Chi-Square		109.046	DF = 4	Prob = 0.0001

A positive relationship was indicated between success of the activity and the target population (chi-square = 19.233, p > .0038, 6 Df). The target population for the majority of all activities was the total school population, or 64.1 percent. Of the more successful activities, 66.6 percent was directed at the total school population and 60.5 percent of the less successful activities was directed at this population group (see Table 19).

Table 19

Weighted Frequency and Chi-Square for

Success of Activity by Target Population

TARGET POPULATION

SUCCESS OF ACTIVITY	Classroom Teachers Elementary	Classroom Teachers Secondary	Special Teachers	Administration	Support	Individual Schools	Subject Areas	Total Educators
More Frequency	24	5	0	0	4	21	2	112
More Percent	58.54	21.74	0.00	0.00	100.00	70.00	50.00	60.87
Less Frequency	17	18	1	0	0	9	2	72
Less Percent	41.46	78.26	100.00	0.00	0.00	30.00	50.00	39.13

Chi-Square 19.233 DF = 6 Prob = 0.0038

A positive relationship was indicated between success of the activity with the time the activity was held (chi-square = 26.384, p > .0002, 6 Df). Because of the number of cells and the expected frequency for each cell, a computer warning was printed, stating over 20 percent of the cells had expected frequencies of less than five and that the table is so sparse that the chi-square may not be a valid test. This will be discussed further in Chapter 5. The data showed 59.1 percent of the total activities occurred after school and 20.8 percent occurred during the school day. The remaining 20.1 percent were scattered over five categories, none of which had more than 6.4 percent of the total. "Less successful" activities were held after school 73.1 percent of the time while "more successful" ones were held after school only 48.7 percent of the time. "More successful" activities were held during the school day 24.3 percent of the time compared with 15.9 percent for "less successful" activities (see Table 20).

Table 20

Weighted Frequency and Chi-Square for

Success of Activity and Time Activity Was Held

	TIME ACTIVITY WAS HELD						
SUCCESS OF ACTIVITY	During School	After School	Evening	Weekday	Professional Day	Weekday Other (Summer)	Other
Frequency	40	80	3	10	11	8	12
More Percent	67.80	47.90	100.00	55.56	100.00	100.00	70.59
Frequency	19	87	0	8	0	0	5
Less Percent	32.20	52.10	0.00	44.44	0.00	0.00	29.41
	Chi-Square 26.384		DF = 6	Prob. = 0.0002			

A positive relationship was indicated between success of activity and the total hours attended (chi-square = 13.265, $p > .01$, 4 Df).

The time-length of activities varied from one to more than 21 contact hours. The number of contact hours appeared to have little bearing on the relative success of the activity. For example, 15.1 percent (43) of the total activities were classified as "more successful" and lasted one or two hours, as compared with 16.6 percent (47) classified as "less successful" and lasting one or two hours. Of the total activities, 73.1 percent (207) lasted 10 hours or less in duration, while only 26.8 percent (76) involved 11 hours or more (see Table 21).

Table 21

Weighted Frequency and Chi-Square for

Success of Activity by Total Hours Attended

	TOTAL HOURS ATTENDED				
SUCCESS OF ACTIVITY	1-2	3-5	6-10	11-20	21+
More Frequency	43	32	38	26	25
More Percent	47.78	56.14	63.33	83.87	55.56
Less Frequency	47	25	22	5	20
Less Percent	52.22	43.86	36.67	16.13	44.44
	Chi-Square		13.265	DF = 4	Prob = 0.0100

A positive relationship was indicated between success of activity and the number of sessions attended (chi-square = 31.941, p > .0001, 6 Df). Again a computer warning was generated, stating that the table was so sparse that the chi-square may not be a valid test. This will be discussed further in Chapter 5. Both "more successful" and "less successful" activities closely paralleled each other as far as the number of sessions held. Ninty-eight of "more successful" activities (59.7%) and 63 of the "less successful" activities (52.9%) had only one session. "More successful" activities tended to meet more often, with 26.2 percent (43) meeting in five or more sessions, compared with 16.8 percent (20) of "less successful" activities (see Table 22).

Table 22

Weighted Frequency and Chi-Square for

Success of Activity by Number of Sessions

		NUMBER OF SESSIONS			
SUCCESS OF ACTIVITY	1	2	3	4	5+
More Frequency	98	1	10	12	43
More Percent	60.87	4.55	62.50	57.14	68.25
Less Frequency	63	21	6	9	20
Less Percent	39.13	95.45	37.50	42.86	31.75
Chi-square		31.941	DF = 6	Prob = 0.0001	

A positive relationship was indicated between success of the activity and the means of assessment (chi-square 92.081, p > .0001, 2 Df). Participant evaluation was by far the most often used method of determining the success of activities judged to be "more successful." A total of 90.4 percent (152) of "more successful" activities were judged on the basis of participant evaluation, compared with only 36.9 percent (44) of "less successful" ones. Head count, or the number of participants, was the more often used method, 39.5 percent (47), for "less successful" activities, as compared with 5.9 percent (10) for the "more successful" activities. The chi-square results seems to indicate that the method of assessing success was a distinguishing difference between "more successful" and "less successful" activities (see Table 23).

Table 23

Weighted Frequency and Chi-Square for

Success of Activity by Means of Assessment

	MEANS OF ASSESSMENT		
SUCCESS OF ACTIVITY	Participant Evaluation	Director Evaluation	Numbers Evaluation
More	Frequency 152	6	10
	Percent 77.55	17.65	17.54
Less	Frequency 44	28	47
	Percent 22.45	82.35	82.46

Chi-square 92.081 DF = 2 Prob = 0.0001

The analysis of Part 3 of the questionnaire shows that both "more successful" and "less successful" activities were offered primarily because of formal needs assessments. Based on the weighted data for importance of reasons in deciding to offer activities, formal needs assessments composed 55.63 percent (257) of the total reasons for offering the various activities. Informal needs assessments were 36.15 percent (167) of the reasons and the remaining 8.22 percent (38) were prescribed by an outside agency.

Nearly this same ratio between formal and informal methods continues when only "more successful" activities were analyzed. Formal needs assessments were the most important reasons for 55.35 percent (150) of the "more successful" activities while 36.35 percent (99) had informal needs assessments as the most important reason.

A slightly higher percentage, 56.02 percent (107), of "less successful" activities used formal methods as compared with 35.60 percent (68) using informal methods (see Table 24).

Table 24

Weighted Frequency Analysis Table of Success of Activity by Needs Assessment Method

SUCCESS OF ACTIVITY	NEEDS ASSESSMENT METHOD		
	Formal	Informal	Prescribed
Frequency More	150	99	22
Percent More	58.37	59.28	57.89
Frequency Less	107	68	16
Percent Less	41.63	40.72	42.11

Chi-square = .04495 DF = 2

Using the weighted data, there were 154 "more successful" activities using formal needs assessments as compared with 107 "less sucessful" activities (see Table 25).

Table 25

Weighted Frequency Analysis Table of

Success of Activity by Formal Needs Assessments

	FORMAL NEEDS ASSESSMENT		
SUCCESS OF ACTIVITY	Most Important	Next Most Important	Third Most Important
Frequency More	123	10	21
Percent More	59.71	71.43	51.22
Frequency Less	83	4	20
Percent Less	40.29	28.57	48.78

Chi-square = 1.963 DF = 2 Probability = 0.3748

Using the weighted data, there were 102 "more successful" activities which had been developed using informal needs assessments as compared with 68 "less successful" activities (see Table 26).

Table 26

Weighted Frequency Analysis Table of

Success of Activity by Informal Needs Assessments

	INFORMAL NEEDS ASSESSMENTS		
SUCCESS OF ACTIVITY	Most Important	Next Most Important	Third Most Important
Frequency	59	15	28
More Percent	61.46	50.00	63.64
Frequency	37	15	16
Less Percent	38.54	50.00	36.36
Chi-square = 1.577		DF = 2	Probability = 0.4595

CHAPTER V

SUMMARY AND RECOMMENDATIONS FOR FURTHER STUDY

Summary

This study focused on the types of needs assessments used in deciding to offer specific staff development activities. Of primary concern was the types of needs assessments used in deciding to offer staff development activities that were later judged "more successful" and "less successful." Also studied were characteristics of those staff development activities, including, the method used in evaluating their success, time of day the activity was held, number of sessions, number of contact hours, target population, number of participants and general content.

A questionnaire was developed and mailed to directors of selected Federal Teacher Centers throughout the nation. At approximately the same time, the Federal Teacher Center Program was abruptly discontinued, resulting in only a moderate return rate. The returns included 74 usable staff development activities.

Part 1 of the questionnaire asked for general information about the respondent. In Part 2, each respondent listed three staff development activities held at their teacher center that were perceived as "more successful" and three that were perceived as "less successful". The respondents also provided the means for information about each of those activities, including, name and description of activity, target audience, potential number of participants, actual number of participants, total hours and days, time of day held, and means of assessing effectiveness of activity.

In Part 3, respondents were asked to check the most important idea/sources for deciding to offer each activity listed in Part 2. When compiling the results, this researcher categorized the idea/source into three major sources: formal needs assessment, informal needs assessment and prescribed or required activities.

Limitations of the Study

A limitation of this study is the narrowness of the sample. The respondents, though experienced in staff development, represented only a small group engaged in staff development. Also, the funding source for the teacher centers set them apart from other staff development agents, thus limiting their direct applicability to agencies carrying out other staff development programs.

Another limitation is the lack of uniformity of the evaluation of the individual staff development activities. Respondents could use either participant evaluation, number of participants, or their own judgment as a method to evaluate success. It would have been preferable to have an outside source, using uniform criteria, to evaluate the activities.

A specific limitation of this study is the small return which could have affected the representativeness of the sample, especially regarding generalizations to all school populations.

Two statistical warnings were issued for low cell size by the Statistical Analysis System Package. A positive relationship was indicated between success and time activity was held ($P>.0002$), with a computer warning issued for insufficient cell size. A second computer warning for low cell size was issued when a positive relationship was found between success of activity and number of sessions attended ($P>.0001$). In both of these instances the reporting of statistics was done in percentages where trends were distinguished and many

categories were used, several of which had zero or a low number of participants.

Findings

Analyses of the questionnaire suggest the following:

Formal needs assessment methods were not necessarily a better predictor of success for individual activities than other methods. The results of the analyses showed an insignificant chi-squares for both formal and informal needs assessments as predictors of success.

"More successful" activities tended to involve more than one session and are not the "one-shot" variety typical in staff development. "More successful" activities also involved more total hours of attendance than the "less successful" activities.

The times most commonly used for staff development activities were after school or during the school day. Nearly three-fourths of all "less successful" activities occurred after school, with the second highest percentage "during school". Nearly one-half of the "more successful" activities occurred after school and one-fourth of the activities were held during school hours. None of the "less successful" activities were held on scheduled "professional days," or vacation time, while ten percent of the "more successful" activities were held on those days.

The target population for most activities was the total educator population. Specialty groups within education, including administrators, were not particularly well addressed since they were not the target population for any one activity.

Participant evaluation of some kind was used in the majority of staff development activities. The majority of "more successful" staff development

activities were judged successful by respondents on the basis of participant evaluations.

The respondents' perception of the relative success of the activity was related somewhat to the number of participants who attended. The vast majority of "more successful" activities (93.3%) had 11 or more participants while the "less successful" activities had a much smaller percentage (35.3%) with 11 or more participants.

Recommendations

Recommendations for Staff Development

Based on the findings of this study, this researcher has developed a number of recommendations for staff development programs. They are as follows:

1. Use both formal and informal needs assessment methods in decisions to offer individual staff development activities.

2. When feasible, hold more than one session, rather than the "one-shot" approach.

3. Most formal needs assessments focus on the needs of the educator. When developing formal needs assessment, the needs of the three major groups involved in education should be considered: school patrons, students, as well as educators.

4. Consider holding activities when the participants are more rested and ready to participate, such as during the school day, on a weekend or professional or vacation day. Conversely certain times of the day should be avoided if possible, such as right after school is dismissed and before the evening meal.

5. Rather than relying on participant or administrative evaluation, use outcome evaluations, when feasible, to judge the effectiveness of staff development activities.

Recommendations for Further Study

Minimal research has been done concerning the selection and implementation of staff development programs for educators. Most staff development programs associated with the public schools have limited funding to plan and present activities. Furthermore, educators are busy persons with limited time to participate in such activities. It is important that staff development activities meet the needs of those for whom they are targeted. Additional research is needed which suggests behaviors on the part of instructional developers regarding the effective planning and implementing of staff development programs. Some possible research areas include:

1. Are staff development activities generated from broad program topics, developed from a formal needs assessment, judged "more successful" by the participants than activities planned through other methods?

2. Do staff development program produce more positive results (e.g. increase in standardized student test scores greater than normally expected) when there is a high level of involvement of school patrons, students and educators in determining the areas of staff development?

3. Are staff development activities determined by administrators judged as "more successful" by the participants than those prescribed by other parties (e.g. staff development personnel, teachers, parent organizations)?

4. What are the most widely used processes for planning staff development activities--from the first establishment of a need to evaluation and feedback?

5. Which group is most successful in predicting staff development needs of the school system as a whole central office administrators or staff development professionals?

6. Is there a correlation between the type of needs assessment method used in determining staff development activities and outcomes of those staff development activities (e.g. the level of mastery of the material presented in the activity, the number of teachers who incorporated concepts, instructional methods presented in the activities into the classroom, professional, or personal life)?

7. Does the awareness of a need on the part of the educator precipitate actions on the part of the educator to fulfill the recognized need?

8. What does a multi-discipline search of the literature on the use of needs assessment processes in personnel training reveal in these areas: (1) private business, (2) health professions, and (3) the military?

9. Is there a correlation between the needs assessment process used in planning individual staff development activities and the activity's relative success, as judged by the participants? In such a study, recommended participants would be directly surveyed as to their perceptions of the success of the activity at its completion.

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APPENDIX A

PART II

Some staff development activities are judged to be more successful than others by teacher participants and teacher center staff. In this section, you are asked to select three (3) of the more successful and three (3) of the less successful staff development activities and provide the means you used in assessing their effectiveness. Please be as specific as you can.

Select six (6) activites offered through the teacher center from January 1980 until December 1981 - three (3) of the more successful and three (3) of the less successful. Please provide the information requested for each activity.

		ACTIVITY NAME/DESCRIPTION	TARGET AUDIENCE	POTENTIAL NUMBER OF PARTICIPANTS	ACTUAL NUMBER OF PARTICIPANTS	TOTAL HOURS AND DAYS	TIME OF DAY	MEANS OF ASSESSING EFFECTIVENESS OF ACTIVITY
EXAMPLE:	ACTIVITY A	*Assertive Discipline - classroom method of discipline*	*Teachers at Wash. Elem.*	*Space limit 40*	*16*	*4 hrs over 2 days*	*after school*	*favorable teacher evaluation*
	ACTIVITY 1 More successful							
	ACTIVITY 2 Less successful							
	ACTIVITY 3 More successful							
	ACTIVITY 4 Less successful							
	ACTIVITY 5 More successful							
	ACTIVITY 6 Less successful							

PART III

Ideas for staff development activities come from many sources. In this section, you will be asked to check the source(s) of each staff development activity listed in PART II.

Please check (✓) the process used for each listed activity in PART II. (More than one reason may apply. Please check as many that apply for each activity.) Circle the check mark (✓) for the most important reason for each activity and draw a box around the check mark (☑) for the second most important reason.

ACTIVITIES from PART II

1	2	3	4	5	6	
						A. formal needs assessment in the original grant application
						B. formal needs assessment completed more than six (6) months from time of activity
						C. formal needs assessment completed less than six (6) months from time of activity
						D. teacher center grant objective
						E. policy boerd decision
						F. school system objective
						G. school system administration request
						H. classroom teacher request
						I. teacher group request
						J. request of local teacher organization
						K. involvement in teacher project(s)
						L. external request (ex. Red Cross)
						M. higher education institution request (*course not initiated by teacher center*)
						N. teacher center staff through observation, discussion, etc.
						O. required due to curriculum update or change
						P. federal, state or local requirement
						Q. other (please specify) _____

Dear Colleague:

Your professional involvement is requested for collection of data concerning staff development and types of input used to determine what specific activities are offered. The data will be presented in a doctoral research study and then available to those involved in the establishing of staff development activities.

Please complete the following questionnaire. Responses will remain confidential. Please return the completed questionnaire as soon as possible in the enclosed envelope. Thank you for your participation.

PART I GENERAL INFORMATION

1. Name of teacher center _____
2. Address _____
3. Phone number ( ) _____
4. Name of person filling out questionnaire _____
5. Position _____

APPENDIX B

Program Name and Address	Grantee Project Director Telephone Number
Montgomery Teacher Center 515 South Union Street Montgomery, Alabama 36104	Montgomery Public Schools Charlscia Elrod (205) 264-1055
N.W. Artic Teacher Center P.O. Box 51 Kotzebue, Alaska 99752	N.W. Artic School District Will Bodger (907) 442-3472
Teacher Centers Program P.O. Box 248 Sells, Arizona 85634	Indian Oasis School District Richard Souligny (602) 383-2601 x227
Teacher Centers Program 1111 Spring Street Hot Springs, Arkansas 71901	Hot Springs School District #6 William Nipper (501) 623-7421
S.W. Arkansas Teacher Center 3607 Grand Avenue Texarkana, Arkansas 75502	Texarkana School District #7 Mary Hamilton (501) 774-2534
Berkeley Teacher Center 1720 Oregon Street Berkeley, California 94703	Berkeley Unified School District Robert Serofoni (415) 644-6274
Claremont Teacher Center 700 Baseline Road Claremont, California 91711	Claremont Unified School District Jarene Brunett (714) 621-6144
West Orange County Teacher Center 6582 Lennox Drive Huntington Beach, California 92647	Huntington Beach Union HS Distric Margaret Herron (714) 848-1020
San Fernando Valley Teacher Center 1811 Nordhoff Street Northridge, California 91330	California State University at Northridge Luis Hernandez (213) 885-2564

Program Name and Address	Grantee Project Director Telephone Number
Laguna Salada Union School District 375 Reina Del Mar Pacifica, California 94044	Laguna Salada Union School District Norman Seward (415) 359-1641
San Francisco Teacher Center Parkside School 2550 25th Avenue - Rm. 13 San Francisco, California 94116	San Francisco Unified School District Kathy King (415) 665-9490
Santa Clara County Educator's Staff Development Consortium 100 Skyport Drive San Jose, California 95110	Santa Clara County Schools Jodi Servatius (408) 299-4885
Marin Teacher Learning Cooperative 1111 Las Gallines San Rafael, CA 94903	Marin County Schools Karen Kent (415) 499-5811
Vallejo Teacher Center 211 Valle Vista Vallejo, California 94590	Vallejo City Unified School District William Loudon (707) 644-8921
School Resource Network 535 Main Street Ventura California 93009	Ventura County Superintendent of Schools Steve Kingsford (805) 654-2164
Teacher Centers Program Halls Hill School Halls Hill Road Colchester, Connecticut 06415	Regional In-Service Education Peter Martin (203) 537-2117
Hartford Teachers' Center 249 High Street Hartford, Connecticut 06103	Hartford Public Schools Dorothy Billington (203) 566-6715
Connecticut Teacher Center for Humanistic Education P.O. Box 636 Rocky Hill, Connecticut 06067	Stratford Public Schools Frank Bellizzi (203) 529-8657
West Hartford Teacher Center Board of Education 211 Steele Road West Hartford, Connecticut 06117	West Hartford Public Schools Miriam McKenna (203) 236-6081

Program Name and Address	Grantee Project Director Telephone Number
D.C. Teacher Center 10th & F Street, N.E. Washington, D.C. 20021	District of Columbia Public Schools Jimmie Jackson (202) 727-5362
Hernando Teacher Education Center 919 U.S. Highway 41 North Brooksville, Florida 33512	District School Board of Hernando County Elaine Beeler (904) 796-6761
Atlanta Area Center for Teachers 3000 Flowers Road South Atlanta, Georgia 30341	Metropolitan Cooperative Educational Service Agency Howard Knopf (404) 455-9108
Teacher Center Program 375 Winter Street Winterville, Georgia 30683	Northeast Georgia CESA Marilyn Atyeo (404) 742-8292
S.E. Idaho Teacher Center Consortium 1300 Kemberly Road Twin Falls, Idaho 83301	Cassia County Joint District #151 Bedford Boston (208) 734-6911
Chicago Teacher Center 5500 N. St. Louis Avenue Chicago, Illinois 60625	N.E. Illinois University Jerry Olson (312) 478-2506
Macon County Teacher Exchange 303 County Building Decatur, Illinois 62523	Macon County Educational Service Region Michael Williams (217)
Madison County Teacher Center Box 128 Southern Illinois University Edwardsville, Illinois 62026	Madison County Ray Althoff (618) 692-3474
Columbus Teacher Center 703 Washington Street Columbus, Indiana 47201	Bartholemew Consolidated School Corporation Karen Garrity (219) 376-4472

Program Name and Address	Grantee Project Director Telephone Number
Gary Teacher Center 1430 W. 23rd Avenue Gary, Indiana 46402	Gary Community School Corporation Sadie Shropshire (219) 944-8516
Hammond Teacher Center 5935 Hohman Avenue Hammond, Indiana 46320	Hammond City School Mona Sherman (219) 932-5700
Indianapolis Teacher Center 1102 North West Street Indianapolis, Indiana 46204	Indianapolis Public Schools Carolyn Fay (317) 266-4117
Project TRIAD 700 South 4th Street Lafayette, Indiana 47905	Purdue University Alan Garfinkel (317) 494-8284
Teacher Center Program 2201 E. Mitchell Avenue Waterloo, IA 50702	Area Education Agency 7 Diane Gibson-Begron (319) 234-2246
The Greater Franklin County Teacher Center 916 East Main Street Frankfort, Kentucky 40601	Franklin County Board of Education Herbert Franklin (502) 695-2460
Green River Teaching Center 1716 Frederica Street Owensboro, KY 42301	Owensboro Bd. of Education Marilyn Mills (502) 683-0293
Teacher Renewal & Development Center P.O. Box 1442 2501 Adams Street Paducah, Kentucky 42001	Paducah Independent School District Juanita Jones (502) 442-6824

Program Name and Address	Grantee Project Director Telephone Number
Cherokee County Teacher Center 500 West Maple Columbus, Kansas 66725	Columbus Unified School District 493 Elaine Herron (316) 429-3022
Flint Hills Teacher Center Manhattan Unified School District #383 2031 Poyntz Manhattan, Kansas 66517	Manhattan Unified School District 383 Joyce Scammahorn (913) 539-4668
Fifth District Professional Development Center 100 Jewel P.O. Drawer 1616 West Monroe, Louisiana 71201	Ouachita Parish School Board Gloria Camp (318) 325-0451
Orleans Parish School Board 2733 Esplanade Avenue New Orleans, Louisiana 70119	Orleans Parish School Board Brenda L. Pickett (504) 945-9813
Mid-Coast Teacher Center P.O. Box 860 Camden, Maine 04843	Maine School Administrative District #56 Sally Vogel (207) 594-5428
The Urban Teacher Center 2003 Presbury Street Baltimore, Maryland 21217	Baltimore City Public Schools Mary Larson (301) 396-0792
Somerset Teachers' Center Westover Annex Bd. of Education Westover, Maryland 21871	Somerset County Public Schools Joyce Benson (301) 651-1485
Amherst Area Teacher Center East Street School East Street Amherst, Massachusetts 01002	Amherst Pelham Regional Schools Merrita Hruska (413) 253-9363

Program Name and Address	Grantee Project Director Telephone Number
A Teacher Center in Boston 85 Olney Street Dorchester, Massachusetts 02123	Boston City School Committee Elaine Brigman (617) 436-5845
Nantucket Learning Resource Center Vesper Lane Nantucket, Massachusetts 02554	Nantucket Public Schools John Miller (617) 228-4612
French River Teacher Center P.O. Box 476 Oxford, Massachusetts 01537	Oxford Public Schools Robert Richardson (617) 987-0695
Easton Teacher Center Unionville Building 140 Washington Street North Easton, Massachusetts 02356	Easton Public Schools Joanne Galipault (617) 238-4414
Secondary School Teacher Center Component/Rm. 469 Coll. of Ed. Wayne State University Detroit, Michigan 48202	Detroit City School District Jessie Kennedy (313) 557-1684
N.W. Staff Development Project Consortium Rosedale School 9825 Cranston Livonia, Michigan 48150	Livonia Public Schools Dennis Sparks (313) 261-7440
S.W. and West Central Teacher Center Southwest State University Marshall, Minnesota 56258	Southwest/W Central Education Cooperative SVC U Bill Swope (507) 537-1481
Osseo Teacher Center 317 Second Avenue N.W. Osseo Minnesota 55369	Osseo Independent School District 279 James Bakula (612) 533-5954
Staples Teacher Center 526 North 3rd Street Staples, Minnesota 56479	Staples Independent School District 7 Rick Krueger (218) 894-2430 x 795

Program Name and Address	Grantee Project Director Telephone Number
Columbia Marion County Teacher Center 613 Bryant Columbia, Mississippi 39429	Columbia Minicipal Separate School District Glenda Shivers (601) 736-8468
N.W. Mississippi Teacher Center 136 North Front Street Senatobia, Mississippi 38668	N.W. Mississippi Consortium Sanford Powell (601) 562-7003
Jackson Municipal School District Jackson Teacher Center 1593 West Capitol Street Jackson, Mississippi 39205	Jackson Municipal Separate School District Ann Boling (601) 969-1135
St. Louis Metro Teacher Center 9137 Old Bonhomme Road St. Louis, Missouri 63132	Normandy School District Wayne Moshier (314) 993-5858
Teacher Center for Gallatin County 615 S. 16th Street Bozeman, Montana 59715	Bozeman Public School District #7 Ronald Haynes (406) 587-8181
Western Montana Teacher Center 818 Burlington Missoula, Montana 59801	Missoula County Schools Bob Lukes (406) 721-1620
Western Nebraska Rural Teacher Center P.O. Box 77 Sidney, Nebraska 69162	Educational Service Unit #14 Marge Curtiss (308) 254-4677
Las Vegas Teacher Center 600 North Ninth Street Las Vegas, Nevada 89101	Clark County School District (702) 384-9552
Manchester Teacher Center 266A Mammoth Road Manchester, New Hampshire 03103	Manchester School Department Roberta Banfield (603) 624-6424

Program Name and Address	Grantee Project Director Telephone Number
South New Jersey Regional Teacher Center , Robinson Building Glassboro State College Glassboro, New Jersey 08028	Glassboro State College Marion Hodes (609) 445-5371
Newark Teacher Center 131 Thirteenth Avenue Newark, New Jersey 07103	Newark Board of Education James Lerman (201) 643-3451
Albuquerque Learning Center 712 Girard, N.W. Albuquerque, New Mexico 87106	Albuquerque Public Schools Ruthie Duquette (505) 265-8863
Rural New Mexico Teacher Center University of New Mexico Department of Elementary Education Albuquerque, New Mexico 87131	University of New Mexico Joanne Metzler (505) 277-2100
New York City Teacher Center Consortium 260 Park Avenue, South New York, New York 10010	City School District of N.Y. Myrna Cooper (212) 475-3737
Buffalo Teacher Center 721 City Hall Buffalo, New York 14202	Buffalo City School District Marilyn Rosenblat (716) 885-7131
Northern Westchester-Putman Teacher Center Lakeview Elementary School Lakeview Drive Mahopac, New York 10541	Mahopac Central School District Dennis Lauro (914) 628-5841
East Ramapo Teacher Center 461 Viola Road Spring Valley, New York 10977	East Ramapo Central School District Pam Hale (914) 352-3394
Teacher Center of Ardsley Greenburgh and Elmsford 475 West Hartsdale Avenue Hartsdale, New York 10530	Greenburgh Central School District #7 Ann Spindel (914)761-6000 x232

Program Name and Address	Grantee Project Director Telephone Number
NYSUT/Hofstra Teacher Center 206 Mason Hall Hempstead, New York 11550	Hofstra University Barbara Scherr (516) 560-3311
Syracuse Area Teacher Center 150 Marshall Street Syracuse, New York 13210	Jamesville Dewitt School District Sam Yarger (315) 423-3026
NASSAU County Regional Teacher Center 111 Cantiaque Rock Road Westbury, New York 11590	NASSAU County BOCES S. Mark Rosenbaum (516) 931-8121
Mountain Area Teach. Ed. Ctr. 391 Hendersonville Road Asheville, North Carolina 28803	Buncombe County Schools Jerry Russell (704) 274-3355
SPEC Teacher Center 619 Wall Street Albermarle, North Carolina 28001	Albemarle City Schools Jean Owen (704) 983-2126
Wood County Teacher Center 1 Court House Square Bowling Green, Ohio 43402	Wood County Schools James Robarge (419) 352-6531
Cincinnati Area Teacher Center 739 Hand Avenue Cincinnati, Ohio 45232	Cincinnati City School District Susan Richmond (513) 681-8100
Franklin County Teacher Center Center of Science and Industry 280 E. Broad Street Columbus, Ohio 43215	Franklin County Board of Education Jane Applegate (614) 221-1033
Teacher Center 271 4777 Farnhurst Lyndhurst, Ohio 44124	South Euclid-Lyndhurst City Schools Elizabeth Cupp (216) 291-5225

Program Name and Address	Grantee Project Director Telephone Number
Norman Teacher Center Box 1007 Norman, Oklahoma 73070	Norman Independent School District #29 Lessley Price (405) 364-4501
UPDATE Teacher Center 215 E. 12th Stillwater, Oklahoma 74074	Stillwater Independent School District #16 Joye Butler (405) 372-3900
B.E.S.T. Teacher Center 200 Silver Lane Eugene, Oregon 97404	Bethel School District Jack Turner (503)687-3578
Philadelphia Teacher Center 427 Monroe Street Philadelphia, Pennsylvania 19123	Philadelphia School District Dietra Shorter (215) 351-7044
Pittsburgh Area Center for Teachers Carnegie-Mellon University Porter Hall 223 Pittsburgh, Pennsylvania 15213	Carnegie-Mellon University Bette L. Hutzler (412) 578-2935
#1 Teacher Center 2600 Barhamville Road Columbia, South Carolina 29204	Richland County School District #1 Jim Hockman (803) 254-5314
Cooperative Teachers' Center 241 Forbes Avenue Clarksville, Tennessee 37040	Clarksville-Montgomery County Board of Education Pat Donahue (615) 645-2610
Oak Ridge Teacher Center 200 Fairbanks Road Oak Ridge, Tennessee 37830	Oak Ridge Schools Jinx Bohstedt (615) 482-1406
Central Texas Teacher Learning Center 7703 North Lamar Austin, Texas 78752	Region XIII Educational Service Center Jeff Bormaster (512) 458-9131

Program Name and Address	Grantee Project Director Telephone Number
Alamo Teacher Center 1550 NE Loop 410 San Antonio, Texas 78209	Region 20 Education Service Center Tody Rubin (512) 828-3551
Moab Teacher Center Project 217 East Center, Box 69, Rm. 1 Moab, Utah 84532	Grand County School District Barbara Ing (801) 259-8421
Washington West Resource Center Box 172 N Waitsfield, Vermont 05673	Washington West Supervisory Union Wade Scherer (802) 496-3090
Goddard Teacher Center Goddard College Plainfield, Vermont 05667	Goddard College Celia Houghten (802) 454-8311 x321
District M Teacher Center Box 5886, Radford University Station Radford, Virginia 24142	Radford City School Board Jon Dodds (703) 639-9346
Cowlitz Teacher Center 401 North Pacific Kelso, Washington 98626	Kelso School District Joan LeMieux (206) 577-4259
Palouse Consortium Teacher Center Old National Bank Colfax, Washington 99111	Education Service District #101 Lisa Hansen (509) 397-4634
Spokane Teacher Center West 1636 First Avenue Spokane, Washington 99204	Spokane School District #81 Larry Skillestad (509) 455-3703
Great Rivers Teacher Center Route 5 Box 342 Sparta, Wisconsin 54656	Cooperative Education Service Agency #11 Virginia Bell (608) 269-8131
Guam Teachers' Center P.O. Box 23668 G.M.F. Guam 96921	Department of Education Bob Hartsock