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THE DEVELOPMENT OF A NEEDS ASSESSMENT PROCESS MODEL FOR EDUCATORS OF THE HANDICAPPED: A SYSTEMS APPROACH

The Ohio State University

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THE DEVELOPMENT OF A NEEDS ASSESSMENT PROCESS MODEL
FOR EDUCATORS OF THE HANDICAPPED: A SYSTEMS APPROACH

DISSERTATION

Presented in Partial Fulfillment of the Requirements for
the Degree Doctor of Philosophy in the Graduate
School of The Ohio State University

By
William Joseph Lee, B.A., M.A.

********************

The Ohio State University
1983

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ACKNOWLEDGMENTS

The accomplishment of a task such as this dissertation was achieved through the interactive efforts of various people. I want to express my gratitude to the following individuals who provided significant assistance to me in this endeavor.

To Marianne, my thanks and love to you for your confidence in me, your support throughout the past three years and your clear understanding of systems theory.

To my advisers, Dr. Thomas Stephens, Dr. James Collins, Dr. Walter Hack and Dr. Timothy Heron, many thanks for your guidance and friendship during this study and throughout my doctoral program.

To Dr. Larry Magliocca and my colleagues at the TSM-RRC, your ideas and feedback provided valuable input into this study, for that I am grateful.

To my parents, brothers and sisters and the McCarthy family, your visits to Columbus, your numerous telephone calls, and your thoughts and prayers helped me endure. (Maybe we should've bought stock in People Express.)

To Mr. Joseph Fisher, Illinois Department of Specialized Educational Services, thank you for the opportunity to conduct this study.

Finally, to Autumn, your typing and editorial assistance put the icing on the cake.
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Chapter I
INTRODUCTION

The Need for the Study

Kaufman (1977), in an introductory article on perspectives in needs assessment, asks why studies in education consistently indicate that innovations and changes do not result in any significant difference. He speculates that little or no effort is spent on identifying what is important to achieve prior to choosing how to achieve it. Kaufman is convinced that more time and effort should be spent identifying real problems before solutions are chosen. According to Kuh (1980), before the 1960's, curricular goals and objectives were based many times on what was considered to be expert educational theory. Politics and legislation did impact on the goals and objectives, however, the absence of planning was clearly noted.

Although the identification of needs is critical to the planning function, it was not until the 1970's that efforts were made to include needs assessments into the planning process. Witkin (1977) states that the overriding motivation for this has been the requirement by state and federal laws that educational agencies conduct a needs assessment in the development of programs. Gear and Gable (1979) report that, with the increasing members of handicapped children being educated in regular classrooms, regular teachers may need
in service training to assist them in educating these students. Assessment of these teachers' needs is important because it will pinpoint problems, define goals, and provide a basis for program development and evaluation. Pecheone and Gable (1978) indicate that a compelling reason for implementation strategies to assess needs is the mainstreaming legislation relating to the education of mildly handicapped children in public schools. They suggest that to achieve successful integration of these children into regular classrooms additional inservice training of regular classroom teachers is needed. Inservice training must, however, focus on needs assessment data that identifies skills needed by regular classroom teachers in order to facilitate effective teaching of handicapped children.

Marrs and Helge (1978) state that education is rapidly becoming a scapegoat for society's problems. As a result, teachers must be able to adapt to increased environmental pressures. The implementation of needs assessment can facilitate short- and long-term planning that is necessary to provide effective leadership and to adapt to continuous changes in society. In addition, by correctly relating needs assessment strategies with program planning, school districts are aided in meeting demands for accountability. Also, Marrs and Helge (1978, p. 144) ascertain that "early ongoing assessment of needs prior to the development of program plans . . . is a mandatory prerequisite for optimal adaptive organization behavior."

In recent years concerns have been expressed about various aspects in the field of education. Relevance of existing programs, accessibility of programs to specific student populations and increased costs
have been a few of these concerns. With regard to costs, school
districts and educational institutions now have to carefully analyze
the relationship between resources and expenditure decisions. A
basis for determining expenditure of resources; i.e., needs assessment,
is essential before decisions are made. According to Mann (1980),
agencies that distribute funds invariably require an explanation of
need. It would appear, then, that the system requesting the funds
should justify the need through a needs assessment of the population
to be served.

The planning function is a priority component in the design and
development of change and improvement in educational programs (Melton,
1977). Practitioners at various levels are in agreement with this
point. For example, Morgan and Feldman (1977) implemented a needs
assessment at the community college level. The San Diego Community
College District's educational needs assessment model is an on­
going process that provides current data upon which program planning
and management decisions can be made. The authors emphasize that
planning best starts with the identification of needs. Roberts,
Daubeck and Johnson (1977) used needs assessment results to establish
training programs for the U.S. Army. The authors report that using
needs assessment methodologies assists Army planners in accurately
identifying and responding to the requirements of the role assigned
to its soldiers in providing national defense. Dick and Carey (1977)
state that needs assessment can be helpful in the area of instructional
design. The authors report that decision-makers are increasingly using needs assessment techniques to gather information and to make choices. Needs assessments should provide instructional designers with information that is essential for planning and developing effective instructional programs. Murphy and Martin (1977) developed a needs assessment process in a small college. Facing limited resources and lack of a system for responding to student needs, the authors developed a procedure for identifying educational needs and allocating resources to plan programs to meet pressing needs. Finally, regarding public elementary and secondary education, Melton (1977, p. 36) states,

Many school systems around the country have recognized the requirement for controlled and purposeful change to stimulate renewed thrust toward educational excellence. To establish the necessary foundations for planning and to base decisions on documented evidence they have utilized the concept of needs assessment as the first step in the process of change.

Public Law 94-142, The Education of All Handicapped Children Act of 1975 has changed markedly the way most school districts provide service to children with special needs (Harbin & Pelosi, 1979). A larger percentage of school personnel are participating in a new process of providing educational services. As a result,
roles and functions of principals, regular classroom teachers, special education teachers and support personnel have changed. As previously stated, inservice training based on identified needs is a key strategy for helping professionals understand and function in their new roles. To aid in the development of inservice programs, the federal government has mandated, through P.L. 94-142, that staff development plans be developed in each state and has provided for financial assistance of these plans. According to the mandates of P.L. 94-142, each state, in order to receive funds under Part B of the Act, must submit an annual program plan to the Commissioner of Education through the state educational agency (SEA). This plan must provide a description of programs and procedures for the development and implementation of a Comprehensive System of Personnel Development (CSPD) which includes, but is not limited to, the inservice training of special and general educational staff as well as related services and support personnel. As indicated under Section 121a382 of the Federal Register (1977) each annual program plan must describe the process used to identify areas of inservice training needs and specify training needs and groups requiring training.

Given these mandates, the need for inservice training of educators of handicapped children and the prerequisite of the identification of needs prior to program planning, it is essential that state departments of education develop needs assessment strategies for utilization by local education agencies.
Purpose of the Study

The language in Public Law 94-142 indicates the responsibility of the state educational agency (SEA) to assume a leadership role in the development and implementation of staff development programs. The SEA must produce a comprehensive plan that includes a needs assessment component. In order to gather statewide needs assessment data, each local education agency (LEA) is required to conduct individual needs assessments at the local level. The primary purpose of this study, then, is to develop a needs assessment model to identify inservice training needs of educators of handicapped children. The model is to be used by the SEA in its technical assistance activities for LEAs.

The development of the study is based on the following logic:

1. Need assessment is a prerequisite for program planning.
2. Educators of handicapped children should receive inservice training to provide quality services for these children.
3. The SEA, through its technical assistance activities, is the appropriate agency to assist LEAs in their needs assessment efforts.

The product of this study, a needs assessment model, is based on the systems approach to problem solving. The problem solving
methodology is an application of the work of Kaufman (1972); its theoretical roots are based on the works of van Bertalanfty (1968) and Churchman (1968).

Stated in concise terms, the purposes of this study are as follows:

1. To discuss and derive a definition of "need."
2. To describe the relationship between needs assessment and inservice training and to identify "good practices" in needs assessment.
3. To provide a review of systems theory and problem solving.
4. To design and verify a needs assessment model that identifies the needs of educators of handicapped children.

Statement of the Problem

Although the development of a needs assessment model was essential to this study, the primary issues involved resolution of a highly specific problem. As a result, the identification of a problem solving methodology and its subsequent application was of prime importance to this study.

The Illinois Department of Specialized Educational Services (IDSES) determined that many local educational agencies under its
jurisdiction require technical assistance regarding their needs assessment practices. The problem, according to IDSES administrative staff, relates to the allocation of set aside funds for inservice purposes. According to Klein (1971), resultant data from a needs assessment can be used to ensure efficient utilization and expenditure of personnel time and resource. In Illinois, school districts were basing expenditure decisions on unreliable needs assessment data. The IDSES, in order to correct this situation, requested that a needs assessment model be developed to be included in its technical assistance to local education agencies.

Given this problem, the Illinois Department of Specialized Educational Services contracted with the Tri-State Midwest Regional Resource Center (TSM-RRC) to develop the needs assessment process model. The Tri-State Midwest Regional Resource Center, located at The Ohio State University, Columbus, Ohio is a federally funded project from the Department of Education under Contract No. 300800715. The TSM-RRC is one of twelve projects across the country and the primary task of the RRC network is to provide technical program assistance to State Departments of Education through the respective State Directors of Special Education. Established in September, 1980, the TSM-RRC serves the states of Illinois, Indiana, and Ohio.

Through the identification of problems and program assistance needs in each state, the TSM-RRC and the IDSES developed a series of
program assistance agreements (transactions) which included the development of the needs assessment model. The model was developed as a result of the application of the problem-solving methodology. It is prescriptive in nature for, as indicated by Greenberger, Crenson and Crissey (1976, p. 59) it prescribes "a solution to a problem" or is "the best answer in a given situation." The ultimate use of this model in the real world requires some explanation. The intent of this study is to design and verify a model; i.e., to produce a model based on the specifications of the IDSES. Verification is a test of whether the model has been developed as intended (Greenberger, Crenson, & Crissey, 1976). Validation, in contrast, refers to an indication of the behavior of the model under limited conditions. Thus, validation is beyond the scope of this study and is a subject for future research.

Methodology

The Illinois Department of Specialized Educational Services has expressed a concern regarding the needs assessment practices of local school districts and how these practices affect expenditure of funds earmarked for inservice education programs. This is a significant problem in the view of the Illinois Department of Specialized Educational Services (IDSES) staff and the strategy used to address this problem is crucial to it being resolved. Therefore, the methodology chosen to solve the problem must incorporate procedures specific to the problem resolution process. A method specifically related to problem resolution
is the systems approach. Kaufman (1972, p. 1) defines a system as "the sum of total parts working independently and working together to achieve required results or outcomes . . ." He describes a systems approach as a process by which needs are identified, problems selected, requirements for problem solution are identified, solutions are chosen from a set of alternatives, results are evaluated, and revisions are made as necessary.

The systems approach used in this research is based on work completed by Kaufman (1968). It has also been delineated by Lehman (1968) and Carter (1973) and is similar to the work of Manena et al. (1980). The model, which Kaufman labels as a problem solving process, incorporates the following six steps (See Figure 1):

1. Identify the problem
2. Determine solution requirements/solution alternatives
3. Select solution strategy
4. Implement solution strategy
5. Determining performance effectiveness
6. Revise as required

In this section each step is outlined and is specified by questions to be answered and activities to be completed. Although each step is an independent exercise, the success of solving the problem requires that all parts (steps) work together to achieve the desired outcomes.
I. Identify the Problem

In attempting to solve any problem it is critical to define the problem as clearly as possible. As stated by Kaufman (1976, p. 15), "A poorly defined problem may have an infinite number of solutions." By clearly stating and understanding the problem, the researcher is equipped with information necessary to stay on target in the problem resolution process. In systems work, each of the steps toward solving the problem are independent as well as interdependent. Thus, inaccurate problem identification can lead the process astray; i.e., major deviation from the desired route to resolution may occur. It is highly likely, then, than the end result will have little effect on the real problem. As a result, significant amounts of resources will have been expended and the problem will still exist.

The following questions and activities were developed to assist in the accurate identification of the problem:
Question 1 - What is the specific problem as determined by the IDSES?

**Activity A** - Schedule communications (e.g., meetings, teleconferences) with IDSES staff.

**Activity B** - Contact local directors of special education in Illinois to gather additional input regarding the problem.

**Activity C** - Discuss data from Activities A and B with Staff from the Tri-State Midwest Regional Resource Center (TSM-RRC).

**Activity D** - Clarify questions with the IDSES staff as necessary.

**Activity E** - Restate, in writing, the problem for confirmation by the IDSES.

II. Determine Solution Requirements/Solution Alternatives

Once the problem has been identified and understood, a strategy towards resolution must be outlined. The outline should include requirements essential for problem resolution and possible strategies for fulfilling those requirements. Strategies should be considered in light of what can realistically be accomplished with the available resources.

Question 1 - According to the IDSES, what is needed to resolve the problem?

**Activity A** - Schedule communications (e.g., meetings, teleconferences) with IDSES staff.
Activity B - Confirm in writing with the IDSES exactly what is to be accomplished (e.g., end product(s)).

Question 2 - What are the design criteria for the development of the end product(s)?

Activity A - Schedule communications with IDSES staff.

Question 3 - What other relevant information is needed to assist in resolving the problem?

Activity A - Conduct a review of the literature regarding needs assessment and models.

Activity B - Meet with special education practitioners with experience in needs assessment.

Activity C - Contact other information sources (federally funded projects, task forces) relative to needs assessment.

Question 4 - What are the alternative solution strategies?

Activity A - Review literature for successful models.

Activity B - Meet with TSM-RRC staff to discuss possible alternatives.

Activity C - Meet with special education practitioners with experience in needs assessment.

III. Select Solution Strategy

The objective of this step is to select an effective and efficient way of meeting the solution requirements. In order to determine an appropriate solution, information from the two preceding steps must be analyzed and evaluated.
IV. Implement Solution Strategy

The implementation phase of the system is basically a culmination of the previous three steps. Once the solution strategy has been selected, it should be implemented without hesitation. It is possible, however, that the implementation of the solution strategy will present certain problems periodically. This should not be a major concern if the process up to this point has been clearly thought out and followed. In addition, the revision component of the system is always accessible and can be of significant assistance in dealing with problems enroute to resolution.

Question 1 - How will the solution strategy be implemented?

Activity A - Develop a plan of execution.
Activity B - Develop drafts of expected products.
Activity C - Schedule reviews of the drafts by the IDSES, TSM-RRC and others.
V. Determine Performance Effectiveness

To determine performance effectiveness, data are collected during the system's performance and are compared with the solution requirements. This step is linked with the revision step because as discrepancies are identified revision is initiated. The Illinois Department of Specialized Educational Services will be responsible for determining performance effectiveness during system operations and for final performance of the system.

Question 1 - Does the result of implementing the solution strategy meet the needs of the IDSES?

Activity A - As drafts of products are completed, forward to IDSES for review and comment.

Activity B - Forward final draft to IDSES for final review.

Activity C - Meet with IDSES staff to discuss final drafts and receive clearance to print the model.

VI. Revise

This step is basically a tool in the system of problem solving that can assist in the refinement of the process towards resolution. As previously mentioned, it is accessible throughout the process and should be used whenever necessary. As a result, based on the performance data of the system, any or all previous system steps may be modified. This self-correctional feature of a systems approach assures constant relevancy and consistency. According to Kaufman (1972), an educational system is never considered to be complete, for it must be constantly evaluated and, if necessary, revised in terms of:
1. Its ability to meet the needs and requirements it set out to respond to.

2. The appropriateness of performance at any point in the process.

Revision is continuous and ongoing. It is this element that assures that needs will eventually be met. The critical point involved in revision is the requirement that process information be systematically and periodically reported to the decision maker so that necessary corrective action may be taken.

Assumptions

Churchman (1968) and van Bertalanffy (1968) have both suggested that the systems approach is an appropriate tool to use in the resolution of society's problems. van Bertalanffy asserts that the systems approach became necessary as technology began to think not in terms of single machines but in the numerous variables that interact to form a machine.

Some educators (Filbeck, 1974; Kaufman, 1972; Montello & Wimberly, 1975) have encouraged the use of the systems approach in solving educational problems. Kaufman, whose methodology forms the core of this research, states, "A system approach . . . is a type of logical problem-solving process which is applied to identifying and resolving important educational problems" (1972, p. 2). The primary assumption of this research, then, is that the application of Kaufman's methodology is appropriate in attempting to build the needs assessment model required by the Illinois Department of Specialized Educational Services.
A second assumption concerns the needs assessment model itself. Rather than soliciting the assistance of consultants or developing a set of guidelines, the IDSES has assumed that the development of a needs assessment model is critical for improvement in needs assessment strategies within the state. In addition, it is assumed that the need assessment model will, in fact, create positive change in needs assessments conducted by local education agencies.

Limitations

The limitations regarding this research are noted as follows:

1. There is no absolute proof that a model fulfills its objective; validity can only be judged in terms of its purpose (Forrester, 1969).

2. The needs assessment process model was designed for use in Illinois and is not necessarily intended to be applicable to other states.

3. The data for model building was derived from particular circumstances in Illinois.

4. The needs assessment process model is appropriate for the present educational system in the State of Illinois and modifications in it will be necessary as changes in the system occur.

5. The needs assessment process model was designed solely as a prototype.

6. The content in the survey instrument that was developed is limited by the type and numbers of
items, item construction, directions, and the language used.

Definition of Terms

Comprehensive Systems of Personnel Development - a description of programs and procedures for the development and implementation of in-service training of general and special educational instructional, related services and support personnel, to insure that all necessary personnel are qualified and; to disseminate significant information to teachers and administrators of special education programs.

Handicapped Children - those children evaluated in accordance with the terms of P.L. 94-142 as being mentally retarded, hard of hearing, deaf, speech impaired, visually handicapped, seriously emotionally disturbed, orthopedically impaired, deaf-blind, multi-handicapped, or as having specific learning disabilities, and because of those impairments require special education.

Illinois Department of Specialized Education Services - that section of the Illinois State Department of Education responsible for special education activities.

Inservice - training received by personnel who are currently working with handicapped children.

Joint Agreement - regional effort of two or more school boards to provide needed special education services as stipulated by The School Code of Illinois, Section 10:22.31.

Local Education Agency - public board of education legally constituted within a state to perform the functions of elementary and secondary schools. Also referred to as a school district.
Model - "... simplified representation of the interrelationships among elements of a given reference system" (Greenberger, Crenson & Crissey, 1976, p. 49).

Need - a factor necessary for satisfactory job functioning of personnel working with handicapped children and that has been identified as a deficiency by those personnel.

Needs Assessment - a systematic process implemented to identify areas of deficiency of personnel working with handicapped children.

Special Education - specially designed instruction, at no cost to parents, to meet the unique needs of a handicapped child.

System - "the sum of total parts working independently and working together to achieve required results or outcomes ... " (Kaufman, 1972, p. 1).

Tri-State Midwest Regional Resource Center - federally funded project through the U.S. Department of Education established primarily to provide technical program assistance to the State Departments of Education, Division of Special Education in Ohio, Indiana, and Illinois.

Summary

With the passage of Public Law 94-142, Education for All Handicapped Children Act, states have been required by the federal government to submit an annual program plan. A component of the annual program plan is the Comprehensive System of Personnel Development. This development system must describe the process used to identify inservice training needs. School districts in Illinois implement local needs assessments in order to receive set aside funds
for inservice training. Reports of these needs assessment practices by the Illinois Department of Specialized Educational Services have not been positive. Many districts do not carefully plan their needs assessment efforts and inappropriate expenditures of the set aside money is the result.

Although most experts agree that needs assessment is a critical step in the planning process, it does not hold positive reputations in the educational community (Walker, 1980). Too often the opinions of administrators have been the only source of input into needs assessment and the subsequent inservice training programs are viewed negatively by teachers.

Given the current situation in Illinois and the importance of conducting needs assessments, the purpose of this research is to develop a needs assessment process model to assist in the improvement of needs assessment practices by school districts in Illinois.
Chapter II

REVIEW OF THE LITERATURE

Staff development programs, specifically inservice training, have been an integral part of educators' lives for many years. For example, in the 1850s thousands of elementary educators were employed who had little or no preparation. According to Tyler (1971), institutes of two or three days time and short courses in the evening were developed to furnish inservice education. The intent of the inservice activities was to enable teachers to bridge the gap between what their levels of knowledge and teaching competencies were and what their knowledge and competencies should be. It is not surprising, then, that a section mandating requirements for staff development programs was incorporated in legislation regarding the education of the handicapped. Rude (1978) wrote that staff development for those involved with handicapped children is an emerging priority in education. The comprehensive system of personnel development, required of each state by Public Law 94-142, was created to provide inservice training to meet the changing emphasis in the education of handicapped children. The National Advisory Committee on the Handicapped (1977) estimated that 260,000 special education personnel and over two million regular educators require inservice training to implement the provisions of Public Law 94-142.
In order to address the issue of inservice training for educators of handicapped children, the Illinois State Board of Education, since fiscal year 1977, has required that local school districts in the state set aside 10% of P.L. 94-142 flow through funds for inservice training purposes. The Illinois Department of Specialized Educational Services (IDSES), the agency that provides technical assistance to school districts and monitors special education programs, has observed certain inservice activities to be inappropriate. The agency has found little evidence to support expenditure of funds for particular inservice activities. That is, numerous school districts do not use systematic procedures to identify inservice training needs for educators of handicapped children.

A review of the literature was conducted to provide a foundation of information relevant to the resolution of the problem in Illinois. Logically, a researcher does not attempt to solve a complex problem such as this without the assistance of specific strategies and tools. Hence, this review investigates the general system theory and the systems approach in view of problem resolution. An overview of models is provided due to the incorporation of models into the resolution of the problem. Since this research deals also with needs assessment, the last section describes a concept of need and specific practices experts feel to be critical for a successful needs assessment.

General Systems Theory

The term systems is often used in current literature. The concept has been incorporated into all fields of science and has made
its way into popular thinking and mass media. Almost, daily, one can read about various kinds of systems, such as school systems, defense systems, and management systems. Since van Bertalanffy first proposed a general systems theory in 1950, the thread of systems thinking has been developed by scientists in increasing numbers (Luchsinger & Dock, 1976).

According to van Bertalanffy (1968) the roots of systems theory are complex. One aspect, he states, is the progression from power engineering; i.e., the release of large amounts of energy as in steam, to control engineering, which directs processes by low-power instruments and has evolved into computers and automation. Self-controlling devices have developed from the household thermostat to the immensely sophisticated missiles of today. van Bertalanffy explains that systems theory arose from man thinking not in terms of single machines but in the unity of all working parts. For example, space vehicles have to be produced from parts originating in different technologies (e.g., electronic, chemical, mechanical, etc.). Relations of man and machine become important as do numerous financial, economic, social and political problems. In fact, air or automobile traffic are not just a matter of vehicles in motion, but are systems that need to be planned or arranged. As stated by van Bertalanffy "In one way or another, we are forced to deal with complexities, with wholes or systems, in all fields of knowledge. This implies a basic re-orientation in scientific thinking" (1968, p. 5).
In 1964, Young wrote that some scientifically oriented researchers, unhappy with the tending separate various scientific disciplines, began to search for a body of theory that would give some unity to studies in these areas and make available insights and theoretical concepts from separate disciplines on a widespread basis. Traditionally, according to Masarovic (1964), theories have been developed within the boundaries of a specific field. That is, the theories have focused on a given class of systems (e.g., biological, physical, chemical). As the development of theories within particular fields of scientific inquiry advanced, a new problem at a higher level was created. Specifically, a need arose for a general theory that would serve as a foundation for other specific theories, crossing over different disciplines, and resulting in a deeper understanding of the world we live in.

In addition to scientific interest, the solution of certain practical problems seemed to necessitate the development of a general theory. The feeling existed that a basic level of all disciplines must deal with systems of some kind and that there must be a large number of basic concepts that are relevant to all systems. From this grew the concept of isomorphism or isomorphies. This concept suggests that at a basic level there exists a group of principles that can be applied usefully to systems of all kinds from all disciplines. For example, an exponential law of growth applies to certain bacteria cells, to populations of bacteria and to animals and humans. The entities in question, such as bacteria, animals, and men
are completely different, and so are the causal mechanisms involved. Nevertheless, the mathematical law is the same (van Bertalanffy, 1968).

The concept of general systems theory is complex and is based on work completed in fields beyond the knowledge of this writer (e.g., engineering, psychiatry, biology, economics). To present a detailed view of general systems, thus, is inappropriate. The following section does, however, present summary information relating to the nature of general systems theory and an application of this theory, namely the systems approach.

**Definition of System**

The system concept can be traced to ancient civilizations who viewed the universe as a system of interacting phenomena (Miller, 1967). Historically, the concept developed in the fields of logic, philosophy, mathematics and religion. One of the complicating problems is the lack of public understanding of the meaning of the term system (Hrones, 1964).

Young (1964), in a review of general systems theory provides four definitions of the term system:

"a system is a set of objects together with relationships between the objects and between their attributes" (Hall & Fagen, 1956, p. 18)

"a set of elements standing in interaction" (van Bertalanffy, 1956, p. 3)

"a system is considered to be some form in structure or operation, concepts or function, composed of united or integrated parts" (Grinker, cited in Young, 1964, p. 67)
"a whole which is compounded of many parts"
(Cherry, 1957, p. 309).

Another notable definition of system is that developed by Silvern (1975, p. 1). He states that a system is "the structure or organization of an orderly whole, clearly showing the interrelations of the parts of each other and to the whole itself."

From these definitions it becomes clear that a system involves at least two critical components. First, be it a set of objects or elements, the system is looked at as a whole or as a unity. Second, this set of objects or elements representing the whole are related to and interact with each other.

**Characteristics, Elements, Types and Aims of Systems Theory**

Luchsinger and Dock (1976) suggest five characteristics that are present in all systems: organization, interaction, interdependence, integration, and central objective.

Organization relates to structure and function. It points out that components of a system are grouped to allow the type of function necessary to help the organism achieve its objectives.

Interaction refers to the parts of system and how they relate to the function of the system. It indicates that there is a mutual relationship of some kind between the parts of the system. In other words, the parts of the system do not act in a vacuum but continually relate to other parts. From an educational perspective, an example would be how the specific services in a school building (e.g. administrative, instructional, guidance, health, food, etc.) work together for the benefit of the students.
Interdependence is the third characteristic. Interdependence denotes that the parts of the organization depend upon one another. Not only do the parts relate and interact with each other, they provide for the needs and means of attainment for other parts of the organization. For each part of the organization to function properly, it needs other parts of the system. Keeping with an educational example, a guidance counselor is ill equipped to help plan a student's career path without the assistance from administrative activities (e.g., grades, attendance) and instructional personnel (those who collect data to determine grades).

Integration means that wholism or unity of the system is emphasized and alludes to the manner in which the system is tied together. Parts of the system, having recognized their condition of interdependence and interaction with other parts, share objectives of the entire organization. Appropriate integration can produce a synergistic effect with the system parts operating in concert.

Lastly, is the central objective of the system. This relates to a measure of performance and will usually be the output of the system. According to Luchsinger and Dock (1976), certain matters may be sacrificed to achieve the objective, but nothing should be sacrificed that is critical to achieving the objective of the system.

Based on the writings of Young (1965) and Luchsinger and Dock (1976) eight elements of systems were identified. They are: outputs, inputs, processor, subsystems, suprasystems, boundaries, control and feedback.
Outputs are a major consideration of the system. The goal of any system is to produce an output that has significance within its environment. An output can be almost anything; e.g., an automobile, an educated student or medical care. Whatever, the critical issue is that the output must be useful in the environment.

Variables that are applied to the system are called inputs. Most times these variables relate to information, energy and resources, however, they may also be human, technological and social.

The processor of the system involves a transformation or conversion process that translates the input into the output format. The human mind is a good example of a processor. Through sense functions the brain takes in inputs and processes these inputs into a form of output. Churchman (1968) reports that some systems experts refer to the processor as the black box. In this case, the concern is what output the system produces for a given mixture and amount of input.

Subsystems are elements that lie within the system under consideration and which may have unique functions. For example, the counseling department within a school could be considered a subsystem of the organization (e.g., school building) because it performs a function on behalf of the organization. Young (1964, p. 69) concurs with this definition. He states that a subsystem is "an element or functional component of a larger system which fulfills the conditions of a system in itself but which also plays a specialized role in the operation of the larger system."
The environment or larger setting in which the system exists is referred to as the suprasystem. Basically, the suprasystem determines, in part, how the system performs and places demands on the system. A local education agency may be thought of as a system within the suprasystem of the state department of education. Generally, each system has a suprasystem in which it exists.

Boundaries provide an interface between the system under concern and parts of adjoining systems. A boundary can be thought of as a line or area that determines inclusion in or exclusion from a system.

The control element provides managerial guidance for the system and is significantly involved in decision considerations. This means that desired outputs can be established and specific informational sources and processes can be guided to assist in achieving those outputs. Vickers defines control as the "means whereby courses are chosen and kept so as to reach goals" (1957, p. 4).

Lastly, the feedback element measures output with regard to a system. Feedback can reinforce the inputs in relation to the output, adjust inputs to the desired output or redefine what is needed as an output.

Each element of the system has a specific function. When working in harmony, they provide the integrated activity that is necessary for efficient functioning of the system.
Aims of General Systems Theory

According to van Bertalanffy (1968), in the past science tried to explain observable phenomena by narrowing them down to basic investigatible units independently of each other. In contemporary science, however, notions appear that are concerned with wholeness (e.g., problems of organization). In brief, systems of this order are not understandable by investigation of their parts in isolation. General systems theory, then, is a general science of wholeness. The major aims of general systems theory, as developed by van Bertalanffy (1968, p. 38) are listed below.

1. There is a general tendency towards integration in the various sciences, natural and social.
2. Such integration seems to be centered in a general theory of systems.
3. Such theory may be an important means for aiming at exact theory in the nonphysical fields of science.
4. Developing unifying principles running vertically through the universe of the individual sciences, this theory draws nearer to the goal of the unity of science.
5. This can lead to a much-needed integration in scientific education.
The Systems Approach

General systems theory is concerned with developing a systematic, theoretical framework for describing general relationships of the empirical world (Johnson, Kast & Rosenzweig, 1973). It disfavors acting or thinking in a vacuum and encourages consideration of the many activities comprising the organization. It has an ultimate objective of providing a framework that will unite all disciplines in a meaningful relationship (Luchsinger & Dock, 1976). According to Johnson et al. (1973), general systems theory thus represents a point of view rather than a particular method or content area.

As society became more sophisticated and complex, this point of view evolved into a new methodology, namely the systems approach. As problems regarding the control of natural resources, transportation within and between cities, air pollution, city development and redevelopment, education and public health became more apparent, public concern increased. These problems, all large and complex, appeared to require expensive solutions. The systems approach was developed to meet the challenges of these problems. It applies the relevant concepts of general systems theory to facilitate the understanding of the management of organizations. Ramo (1973, p. 15) points to these relevant concepts when he states:

The systems approach is a technique for the application of a scientific approach to complex problems. It concentrates on the analysis and design of the whole, as distinct from the components or the parts. It
insists upon looking at a problem in its entirety, taking into account all the facets and all the variables . . .

Using the systems approach to solve problems requires the examination of systems concepts within a problem solving concept. Dewey (1910) stated the core of problem solving when he asked:

1. What is the problem?
2. What are the alternatives?
3. Which alternative is best?

What the systems approach purports to do, then, is logically structure the problem solving methodology (Ramo, 1973).

The Systems Approach—Definition and Characteristics

Churchman (1968) proposes that there are four different ideas as to what constitutes the systems approach. Specifically, the four ideas are efficiency, science, humanistic and anti-planners. Those in favor of efficiency claim that the best approach to a system is to pinpoint the trouble spots (e.g., unnecessarily high cost) and then remove the inefficiency. In using science as an approach to systems, advocates claim that there is an objective way to view a system and a model of the system can be built that describes how it works. The humanists feel that systems are people, and the basic approach to systems consists of first looking at the human values: freedom, dignity and privacy. The anti-planners believe that any attempt to design specific plans is either foolish or dangerous. The correct approach to systems is to live in them and not try to change them.
The interest in the systems approach has most recently centered on the scientific version.

Montello and Wimberly (1975) claim that achievements such as worldwide air travel, space travel and the telephone system have resulted from the systems approach. They define the systems approach "... as a multiplicity of parts, elements or components, which interact with one another and work together for some common purpose" (p. 12). For example, home heating involves several components including a furnace, air ducts, a fan to move warm air and a thermostat to detect temperature changes. These components work together to provide climatic control for the house. Thus, the systems approach is incorporated throughout our environment.

Miles (1973, p. 2) defines the systems approach "... as a set of concepts and/or elements used to satisfy a need or requirement." Aerospace systems, sewer systems, administrative systems, cardiovascular systems and systems for gambling are all examples of the systems approach. Each of the systems involve various components that work in conjunction to satisfy a need or to solve a problem.

Churchman's (1968) definition of the systems approach is similar to the two prior definitions. He interprets the systems approach as a set of parts that are coordinated to accomplish a set of goals.

Carter (1971) and Huenecke and Stansbury (1975) relate the systems approach directly to problem solving. Carter (p. 25) states that the "systems approach involves a systematic and rational set of procedures by which a given educational, social, or technical
problem can be approached"; the latter two authors view the systems approach as a design or plan for solving problems that describes the interrelations of sequential decision points. Examples of decision points are objectives, strategies and evaluation. Kaufman (1973) also views the systems approach in terms of problem solving. He states that "a systems approach . . . is a type of logical problem-solving process which is applied to identifying and resolving important educational problems" (p. 2).

It appears, then, that the systems approach encompasses two essential elements. First is the requirement of components of the system working together, and second is that these components serve to meet some purpose; i.e., solve a problem or satisfy a need.

**Systems Approach--The Processes**

According to Luchinger et al. (1973), the systems approach provides a manager of an organization with a way of thinking about the performance of his managerial functions, a style of management of organization systems and a method of analysis for problem solving. The emphasis of this research relates to the provision of problem solving. This section illustrates some of the processes involved when the systems approach is used as a tool in problem resolution.

Filbeck (1974) states that the systems approach involves the processes of analyzing systems, synthesizing systems and finding and testing solutions to problems. Systems analysis is a process that first identifies the functional components or subsystems and then determines the interrelationships of the components. In system
synthesis a need is defined and satisfying that need represents the
goal of the system. The critical element in system synthesis is goal
definition. Goal definition is essential because the goal must be
analyzed to identify specific objectives that must be accomplished to
achieve the goal. The objectives then control the process that will
lead to problem resolution. Filbeck (1974) asserts that systems are
analyzed and synthesized as means to solve problems. Thus, the systems
approach, by identifying desired outcomes and goals as projected
solutions, reduces the amount of error in resolving the problem.

Miles' (1973) concept of the systems approach includes systems
analysis and synthesis but provides more detail. Specifically, Miles
lists the following processes:

1. Goal definition or problem statement
2. Objectives and criteria development
3. Systems synthesis
4. Systems analysis
5. Systems selection
6. Systems implementation

Basically, regarding these processes, a problem, need or goal is
quantified in terms of objectives that the system must satisfy and
criteria that can be used to rank alternative systems. Alternative
systems are generated in system synthesis and each of these systems
is analyzed and evaluated in terms of the stated objectives and design
criteria. The optimum system is then selected and implemented. The
entire process is iterative; i.e., results from later stages are fed
to earlier stages for necessary modifications.
Barbee (1972) views the systems approach not as a sequence of steps, but as a dynamic, interactive process. Initial objectives are adjusted as a result of later analysis; constraints may be modified due to cost effectiveness; and, the entire system may be redesigned based on the operational evaluation. The results of every step are analyzed to verify or modify earlier decisions. Based on Barbee's conception of the systems approach, Montello and Wimberly (1975) list the following processes:

1. Define goal and objectives
2. Delineate constraints and conditions
3. Establish standards
4. Synthesize alternative solutions
5. Establish costs for each alternative
6. Select the best alternative and implement
7. Follow through, feedback for improvement

Carter (1973), reporting on the work of an industrial group's examination into the way the systems approach might be applied to education, listed eight basic points that would assist in improving public education. These points are summarized below:

1. State the real need you are trying to satisfy
2. Define the educational objectives that will contribute to satisfying the real need
3. Define these real world limiting constraints which any proposed system must satisfy
4. Generate many alternate systems
5. Select the best alternatives by careful analysis
6. Implement the selected alternatives for testing
7. Based on experimental and real world results, feedback the required modifications and continue this cycle until the objectives have been attained.

The systems approach process developed by Kaufman (1973) and previously described in Chapter 1 (See Figure 1) is similar to those presented in this section. That is, a problem is identified, solution requirements are determined, solution strategies are selected and implemented, performance effectiveness is determined and revision may take place at any step. Kaufman asserts that change is a part of all educational agencies. As such, his systems approach is based on the assumption that action is better than reaction when confronted with change. Action requires purpose, confidence and results. In contrast, reaction results in attempts to be everywhere at the same time.

Change, according to Kaufman (1970), is also threatening to many and is apparently a painful experience. When an educator decides to initiate change, resistance to that change can be forthcoming from a variety of sources, e.g., teachers, administrators, students, board members and other members of the educational community. Planned change appears to be a professional responsibility and as suggested by Kaufman "...a systems approach will help provide the educator with the necessary tools and assurances that he will plan change well" (p. 4).
Although the term systems approach has been defined in various ways, most experts agree that it is a set of parts coordinated to resolve a problem or accomplish a goal. Even though the systems approach can involve a complex goal (e.g., place a man on the moon and return safely) and sophisticated technologies, Miles (1973) maintains that, in basic form, the systems approach is the application of common sense. Each step of the systems approach is the reasonable thing to do. The value of the systems approach is that common sense ideas can be coordinated to focus on the resolution of complex problems.

A last point regarding the systems approach is that it will not alone solve problems for educators. Problems must be identified and alternative strategies to resolve the problem must be developed. What the systems approach will do is allow for the design and implementation of the resolution of a problem in a logical, rational manner.

An Overview of Models

The major problem solving tool of the systems approach is modeling (Magliocca, 1978). A model represents the essential link between theory and problem confrontation for the systems scientist.

Previously, the problem that initiated this research and the theory providing a framework for its resolution (e.g., general systems theory, systems approach) were described. Before detailing the implementation of the systems approach as a problem solving methodology,
an overview of models, a review of existing educational models and
information regarding needs assessments are presented.

Definition

The term model has been used to denote many different things,
from a toy plane to a full-scale prototype of a supersonic aircraft,
from the game of Monopoly to a set of mathematical formulas that
represent the behavior of the national economy.

Typical dictionary definitions of model include "something worthy
to be imitated," "an imitation, especially on a smaller scale," "a
small replica of an existing object," or "one who poses for an artist."
Although these definitions provide an idea as to what a model is, they
fall short in detail.

According to Greenberger, Crenson, and Crissey (1976), "the
essence of a model is that it represents selected features of the
reference system so that one can learn about the reference system
by working with the model" (p. 49). A reference system is some
object, system or process that is of interest to the modeler. If
a model doesn't relate to a reference system then it has no meaning.
Therefore, in the example of Monopoly as a model, its reference
system is the real estate business in Atlantic City.

Greenberger et al. (1976), point out that the modeler must select
from the reference system those elements that are needed to be
included in the model. Obviously, not all elements can be included
and the decision is left with the modeler. As a definition, then, a
model is "a simplified representation of the interrelationships among
elements of a given reference system (Greenberger, et al., p. 49)."
Johnson, Kast and Rosenzweig (1967) refer to a model as an abstract representation of a system. The authors state that a model is one important way to understand complex relationships and improve the quality of decision making. It is used to capture the essence (e.g., major points) of the system and not necessarily the detail of the system.

Lippitt (1973) defines a model as "... a symbolic representation of the various aspects of a complex event or situation, and their interrelationships" (p. 2). As indicated in previous definitions, a model is by nature a simplification and may not include all the variables of the reference system. All variables should be included, however, which the modeler considers to be important. In that sense, models serve as an aid to understanding the event or situation being studied and can be thought of as a method of problem solving that clarifies thinking about a complex presentation.

Classification of Models

Kast and Rosenzweig (1970) and Churchman, Ackoff and Arnoff (1957) classify models into three general groups: iconic, analogue and symbolic. An iconic model pictorially or visually represents certain aspects of a system (as does a painting or model car); an analogue model employs one set of properties to represent some other set of properties that the system being studied possesses, e.g., for certain purposes, the flow of water through pipes may be thought of as an analogue of the flow of electricity in wires; and a symbolic model is one that uses symbols to represent properties of the system under study.
Greenberger et al. (1976) view models as schematic, physical, symbolic and role-playing. Schematic models represent the reference system by using pictures, points, lines, curves, graphs or schemata. Physical models represent the reference system by using selected physical characteristics. A toy car is a physical model of a real automobile; a child's erector set is a physical model of real construction materials. Symbolic models use symbols as linguistic constructs that stand for selected variables of a reference system. School children learn a type of symbolic modeling when they learn to count. The symbols 1, 2, and 3 stand for properties of real objects. Lastly, role-playing or gaming models represent a reference system with the help of roles performed by human players. Greenberger et al. (1976), as seen in Figure 2, classify symbolic models into verbal, mathematic and computer models. Mathematic models are expressed in formal mathematics and computer models are thought as being expressed as computer programs and stored data. Verbal models are symbolic models that use the symbols of a formal language, such as English, to express relationships.

![Figure 2. Classification of Symbolic Models](Greenberger, et al., 1976, p. 52).
Forrester (1961) provides a simple classification scheme. Generally, models are either physical or abstract. Physical models are usually replicas, often on a reduced scale, of objects under study. An abstract model is one in which symbols, rather than physical replicas, comprise the model. According to Forrester (1961), abstract models are much more common than physical models but are less often identified for what they are. The symbolism used can be written language or a thought process. As a result, an abstract model is a description of the system it represents.

The Need for and Functions of Models

Lippitt (1973) states that the historical development of models reveals that in each case man was trying to describe his universe. Early civilizations, such as Egyptian and Chinese, used pictures as a means of communication. Hippocrates produced illustrations and models of organs of the body because there was a lack of cadavers. Engineering models in the late 19th century simulated various functions of living organisms by means of inanimate systems. Models in recent times have been used in such areas as economics, urban housing, world growth and labor disputes (Greenberger, et al., 1976).

Models have become widely accepted as a means for examining complex phenomena (Forrester, 1961). Johnson et al. (1963) points out that models allow problems from the real world to be abstracted in a form suitable for analysis, testing and evaluation. (Lippitt (1973) suggests that models have seven functions:
1. **Representation** - a model can represent a complex situation and furnish a means for making change in it. It may also identify new relationships between two variables.

2. **Guiding** - inherent in the model are rules and guidelines for working with situational variables.

3. **Interpretational** - a model can aid in interpreting and testing theory and provide a framework for experimentation and discussion.

4. **Visualization** - a model can help to visualize a change process or activity, either for the researcher or change agent or as a teaching tool.

5. **Prediction** - in cases where experimentation is impossible or impractical, a model can assist in predicting the results of certain events.

6. **Recreation** - model building can serve as a form of relaxation and recreation for some professionals.

7. **Communication** - communication is not typically included as an important function. One reason may be that it is considered to be implied in a model. A model can be most helpful when it conveys to the user exactly what the model builder intended.

Greenberger et al. (1976) classify models according to three functions. A descriptive model characterizes essential elements of the reference system to allow for experimentation and to help in
understanding. Prescriptive models provide a solution to a problem or find the best answer in a given situation. Normative models identify desirable configurations of the reference system to serve as goals, norms, or standards.

Advantages and Disadvantages in Using Models

According to Bross (1953), a significant advantage of a model is that it provides a framework for the consideration of a problem. Forrester (1961) points out that a model is valuable because it improves the understanding of obscure behavior characteristics more effectively than by observing the real system. Models also have the capacity to bring into the open the problem of abstraction. Bross (1953) succinctly addresses this issue by stating:

The real world is a very complex environment indeed. An ordinary apple, for example, has a great many properties—size, shape, color, chemical composition, taste, weight, ad infinitum. In making a decision about the apple, such as whether to eat it or not, only a few of these characteristics are considered. Some degree of abstraction is necessary for decision" (p. 331).

Lippitt (1976) supports this contention by pointing out that a real-world reference system is too complex to be modeled in exact detail. As a result many factors must be ignored and major factors are abstracted to make up an ideal version of the system. Hence, if the modeler is interested in the speed of a falling apple only weight of the apple may be included in the model.
Another advantage of models is that they often provide the most inexpensive way to yield information when compared to the real system it represents (Forrester, 1961).

Lastly, according to Bross (1953), the symbolic language of models offers advantages in communication for it allows for a concise statement of the problem.

There are, however, certain disadvantages or cautions when using or building models. One caution is inherent in the act of abstracting and pertains to oversimplification. Abstraction is usually an iterative process requiring experience, intuition, and judgment about the reference system being analyzed (Lippett, 1973). Oversimplifying the model; i.e., not including an essential element(s) of the system may render the model less valuable.

Bross (1953) points out another danger in the use of models. After a modeler has been involved with a given model for a long period of time he may become attached to it. An analogy is drawn between the modeler and the child who becomes attached to a doll (which is also a model). A child may become so devoted to the doll that she insists the doll is a real baby. Likewise, a modeler may insist that the model is the real world. This phenomenon takes place in abstract as well as physical models.

Finally, the standard for comparing models is utility (Bross, 1953); i.e., the usefulness to the model user. A conflict between the model and its usefulness (the model and the real world) will sometimes lead to the rejection of the real world. This would be a critical mistake. To guard against making this mistake it must be
remembered that a model is neither true or false. The evaluation of the model is, therefore, dependent on the situation in which it is to be used.

Model Building Process

According to Greenberger et al. (1976) the model building process draws upon theory, data and methodology. They indicate that a model that is lacking in one or more of these elements is like a tripod with a short leg; i.e., it's shaky despite efforts to compensate for the deficiency. It is logical, then, that theory, data and methodology are not independent of one another.

Theory

For every model the modeler has a mental conception of it, its relationships and its elements. This mental image is a reflection of the manner in which the modeler views the reference system. For example, the artist draws a mental image of the object to be painted or the engineer mentally plans how a new railway system might look schematically. Whatever the mental conception, it serves as a blueprint for the formal model.

Laws, principles and hypotheses provide the theoretical base of a model's concept (Greenberger et al., 1976). They define a law as an exact formulation of relationships that are universally observed to happen consistently under the same conditions (e.g., a falling ball); a principle as a formulation of relationships relating to a large class of phenomena that have been confirmed only partially (e.g., principles of evolution); and hypotheses as tentative formulations that are not supported by evidence to the same degree as principles.
The use of theory in model building does not guarantee acceptance, however, if it is rooted in theory the model stands a better chance of being accepted and used.

Data

Data provide a concrete link between a model and its reference system and a means for gaining confidence in the model (Greenberger et al., 1976). Bross (1953) points out that an important point regarding the relationship between the model and data is the periodic return to the real world. While Greenberger et al. (1976) state that a model may be difficult to evaluate without formal data; i.e., time series data, cross-sectional data, other numerical information that is systematically collected and tabulated, they acknowledge that formal data in social systems may be impossible or difficult to obtain. Forrester (1961) does not agreed that the model must be built on formal data:

Some of the most important sources for a realistic dynamic model do not exist as "data" in the usual sense of tabulated statistical data" (p. 57).

According to Greenberger et al. (1976), Forrester claims that models can be accepted as useful on the basis of whether the model agrees with the policymaker's common sense knowledge of the reference system. Forrester's point appears to be that descriptive data can be as important as formal data to the building of the model especially if formal data are difficult to collect.
Real world data are also used to ascertain if the model has been synthesized as intended. This process, referred to as verification of the model, may be contrasted with validation which is the actual use of the model in a real world system for problem-solving. Here again, descriptive data play an essential role in the model building stages that involve verification. The research described in this paper refers only to verification of a model, hence, validation is beyond the scope of this research.

**Methodology**

A modeling methodology is the means by which the modeler's conception is transformed into the formal model (Greengerger, et al., 1976). This is similar to the painter whose style and technique is the methodology by which he synthesizes paints into a model, the painting. Methodologies provide the modelers with existing tools and constructs with which to create a model and they permit the modeler to use the work of others. Using previously developed methodologies negates the necessity to create tools, a tedious and time consuming process that may be filled with error. Another consideration is the agreement between the theory and modeling methodology (Magliocca, 1973). For example, it would be undesirable for the systems planner to use mathematical modeling procedures for a system which lacked the ability to generate quantifiable data.

The use of the systems approach to problem solving as defined by Kaufman (1972), given the previous considerations, is an appropriate model building methodology for needs assessment. The systems
approach has sound theoretical roots in general systems theory; it permits interfacing with the reference system that is necessary for data usage and collection; and it provides the modeler with the vehicle to transform his conception into a formal model. Most importantly, there is a direct relationship between needs assessment and the systems approach because implementing a needs assessment process requires the basic principle of systems theory; i.e., sum of total parts working independently and together to achieve required results or outcomes.

**Definition of Need**

One of the most elusive concepts in education and particularly in the art of needs assessment is that of "need" itself. Komisar (1961) examined the concept as it is used in education and resolved that the term survives because of its vagueness and variety of meanings. The word "need," he noted, is usually perceived as something essential and is useful in the cultivation of endorsement by affected groups and individuals.

Since needs assessment is considered to be a beginning step in the program planning process (Kaufman, 1972), a clear definition of need is necessary to provide direction and meaning to planning efforts.

According to Kuh (1980), two general definitions became popular during the 1960's and early 1970's. In the first definition, referred to as democratic, "need" was thought to be a change desired by a majority of some reference group. Kuh, Orbaugh and Byers (1981)
state that this definition presents some problems. The distinction between "want" and "need" is not clear. Thus, when a group of teachers are asked to describe the current state of affairs and what they think is needed, the results are most likely to reflect wants of the group. Although wants and needs can be one in the same, wants are not necessarily needs.

The second definition, usually mentioned as a discrepancy model, asserts that a need is a measurable gap (discrepancy) between where a person/group is now (present performance) and where a person/group is to be (desired performance) (Kaufman, 1972). Marrs and Helge (1978) note that the discrepancy concept is based on the degree to which the needed standard differs from the actual level of performance, i.e., \((s \neq p) = d\). Bradshaw (1974), writing from the view of social services administration, refers to the discrepancy model as normative in that an expert must first identify what he regards as a desirable standard and then compare it to the observed level of performance. The discrepancy model has been used in higher education (Morgan & Feldman, 1977), in establishing training programs in the U.S. Army (Roberts, Daubek, & Johnston, 1977), and widely utilized in general and in special education (English, 1978; Gable & Gear, 1979; Melton, 1977; Sathory, 1977; Sweigut, 1977; Wolf, 1978). Kuh (1980) notes that this definition of need became popular largely due to its conceptual simplicity and its seemingly positive relationship with the goal/objective/outcome thinking in education during much of the past decade.
There are, however, issues to be dealt with when using this model. Kaufman (1972) states that the key word is measurable. It is not enough to guess or intuitively ascertain the current level of performance or the ideal level of performance. Hard empirical data is necessary to identify both positions of a need. Maras and Helge (1978) state that standards may be program objectives, the school systems philosophy or other statements of expected outcomes but, they must be measurable. Granted that "without a normative standard, no examination of any set of facts yields objectively demonstrable needs" (Griffith, 1978, p. 385), but the problem lies in the degree to which the desired states and levels of performance can be accurately described (Kuh, 1980). For example, it is difficult to accurately determine teachers attitudes towards handicapped children. Another issue regarding the discrepancy model is the ideal performance as it relates to the level of necessity. When do standards of level of performance exceed requirements for satisfactory performance and reach luxury status?

Other definitions of "need" abound in needs assessment literature. Beatty (1976) categorizes needs into two types—felt and prescribed. Felt needs are equal to the wants or desires of individuals. Prescribed needs are identified by a minimum standard set by society against which assistance can be given to members to achieve a specified level. Bowers and associates (1976) define need as a deficiency in something which, according to expert information available, is necessary for the self actualization of individuals for the improvement of the quality of life in the community.
Common throughout the review of definitions of need are three ideas. First, norms (or standards) are determined that are needed to ensure satisfactory performance. These norms are usually set by a group of individuals relying on a variety of information. Second, a need involves some deficiency regarding these norms. Third, an attempt is made to identify the deficiency. A pure discrepancy model may be technically impractical for many districts to use and the democratic definition may not be sufficient to address a problem. An alternative is found in the following to definitions. Scrivin and Roth (1978) refer to "need" as a factor without which a person cannot function satisfactorily. Implied in this definition is the establishment of norms (satisfactory vs. nonsatisfactory) and a deficiency regarding the norm(s). Bradshaw (1974) defines expressed need as a felt need (something recipients of a service believe they want) turned into action; that is, a large percentage of persons actively pursuing a service they need.

For the purpose of this research, the definition of "need," then, is a concept that contains two conditions. First, a "need" is a factor that has been deemed necessary for satisfactory functioning. Second, this factor must be identified as a deficiency by a large percentage of the service providers.

Relationship Between Inservice Training and Needs Assessment

Traditionally, inservice education programs have been used to update skills and to introduce new ideas into education (Rude, 1978).
Harris and Bessent (1969) state that inservice education programs are fundamentally important for the following reasons:

1. Preservice preparation of professional staff members is rarely ideal and many times it serves solely as an introduction to professional preparation.

2. Social and educational change makes current professional practices ineffective in a very short time.

3. Morale can be stimulated and maintained through inservice education and is a contribution to instruction in itself.

Helge (1979), reports that according to staff development literature 15 - 25% of an employee's time should involve participation in staff development activities. In fact, many businesses allow staff members two-thirds of their time for learning new technologies. Not only does inservice education impact upon the skills and knowledge of teachers, the National Rural Project in 1979 reported in a study that problems with staff retention were linked to inadequate staff development programs.

The need and usefulness of inservice education programs can hardly be disputed. The question that remains, however, is how does the needs assessment process relate to inservice education, i.e., what role does needs assessment serve in the development of inservice education programs?
Most professionals involved in inservice education programs realize that, prior to the actual implementation of training activities, a considerable amount of preparation is required. Preparation in the form of planning and the commitment to planning before implementation can prevent the mistake of deciding how to do something before what should be done is determined. Kaufman (1972, p. 6) defines planning as "a projection of what is to be accomplished to reach valid and valued goals." Planning includes the elements of:

1. Identifying and documenting goals
2. Prioritizing needs
3. Specifying outcomes to be accomplished for each need
4. Identifying requirements for meeting each need
5. Identifying alternative strategies for meeting each requirement of the need

Planning is only concerned with what is to be done; it comes before doing. Most important, according to Kaufman (1972), planning best starts with the identification of needs. The identification of needs is a critical planning tool that must be used before solutions to problems are identified and selected.

Planning for inservice education programs should begin with the identification of needs. Comprehensive literature reviews have indicated that staff development programs are more effective if the training is based on needs assessment (Berman & McLaughlin, 1978;
Joyce, 1976; Lawrence, 1974). Harris and Bessent (1969) state that inservice training centered on the needs of teachers and other staff members has been a major theme in the literature for many years. Shearron (1974) concludes that involving prime interest groups in planning of inservice training activities is important but not sufficient; the planning for viable inservice training must begin with a needs assessment. According to Abeson and Burello (1980), planners and providers of inservice education programs are progressively devoting more energies and resources to the systematic determination of the needs of target learners. In addition, the authors state that the identification of needs is critical for all learners (e.g., teachers, parents, related service providers, administrators, policy makers) and that, without it, inservice education program design, delivery and evaluation can result in failure.

Needs assessment has been positively linked to inservice education programs in many studies. The National Inservice Network, funded by the Division of Personnel Preparation, Office of Special Education and Rehabilitative Services, United States Department of Education, is an agency designed to exchange information about inservice programs for regular educators who become involved in the education of exceptional children. The purpose of the Network is to identify model training programs and components from over 300 projects is this priority area. In 1980 the National Advisory Board to the National Inservice Network organized five task forces, one of which conducted a national study of quality practices regarding inservice
education. This study resulted in a document prepared by the Task Force on Quality Practices in Inservice Education (1980). The purpose of this document was to provide inservice training planners with examples of quality practices for the planning, implementation and evaluation of inservice education programs.

The focus of the Task Force effort has been the generation and validation of statements on what constitutes good practices in inservice education programs. After collecting quality statements from a group of seventy-seven (77) key individuals involved in inservice education across the country and the subsequent modification and validation of those statements, a survey was mailed to over three hundred (300) individuals representing a broad sampling of key agencies and role groups in all of the states. The respondent groups were: (1) forty-four (44) of the respondent group of "experts" from the pilot phase; (2) State Department of Education, Comprehensive System of Personnel Development representatives from each of the fifty-four states and territories; (3) ninety (90) federally funded teacher center directors; (4) twenty-six (26) directors of local education agency regular education inservice projects; (5) forty-five (45) National Education Association teaching personnel involved in inservice programs, and (6) fifty (50) American Federation of Teachers teaching personnel involved in inservice programs. A return rate of 49% was achieved.

The statements relevant to this research that were identified to be of critical importance are listed under the following categories:
III. Quality Practices In Inservice Education Are Designed to Result in Programs Which Are Needs Based.

1. An assessment of the strengths and needs of the prospective participants is part of the inservice design.

2. The inservice program design recognizes the vital importance of the participants perceptions of the need for the training proposal.

3. Inservice content and strategies are drawn from and designed to meet the assessed needs of students, personnel and organizations.

4. Programs include activities to meet the needs of leadership personnel, with special attention to building principals.

IV. Quality Practices In Inservice Education Are Designed To Result In Programs Which Are Responsive To Changing Needs.

1. The inservice program design defines a dynamic and continuous process that is flexible and responsible to changing needs and new requirements.

2. Inservice activities are individualized, insofar as possible, to meet the needs and goals of individual participants.
Although these statements are not all inclusive and are based on a 49% return, they do point to the fact that assessment of participants' needs is essential to the inservice education program.

Another Task Force of the National Inservice Network, the Needs Assessment Task Force, produce a document entitled Needs Assessment for Inservice Education: Building Local Programs (Davis, Kuh, Mann, & Walker, 1980). The Needs Assessment Task Force drew its membership from personnel involved in the study, development and use of techniques and instruments for planning and delivering inservice education programs based on the assessment of the perceived needs of recipients of these programs. The Task Force was also assisted by the National Replicable Inservice Training Needs Assessment Project operated by the Council for Exceptional Children. The booklet includes descriptions of four projects, visited by Task Force members, that provide indepth information on the role of needs assessment in the planning and design of inservice education programs. Each of these projects incorporate needs assessment into the inservice program and view it as an integral component. Sharon Davis (1980) provides information about the four projects' practices in the booklet and her comments are summarized below:

Regular Education Inservice (Mainstreaming) Program
Region XIX Education Service Center
El Paso, Texas

This Service Center provides technical assistance to all of the schools it serves to assist in meeting the needs of all students. Needs assessment is an
ongoing part of all Center projects. An inservice project staff and advisory council were instituted to develop and implement the needs assessment. Six workshops were planned regarding the major needs identified.

Regular Education Inservice Project
Reidsville City Schools
Reidsville, North Carolina

The Reidsville City School System was concerned about inservice education for regular classroom teachers because many of them had little preservice education in working with handicapped children. A leadership team was created to modify an existing needs assessment instrument and to implement it. Nine inservice sessions were designed based on the results of the needs assessment. The majority of participants (82%) indicated on subsequent evaluations that the program had met their needs.

Project SERC (Special Education in the Regular Classroom)
Department of Special Education
West Virginia University
Morgantown, West Virginia

Project SERC was designed to introduce Public Law 94-142 and to provide information about working with mildly disabled learners to regular classroom
teachers. Project staff, unsure of the specific needs of these teachers, designed several forms of needs assessment to provide an initial an ongoing assessment of specific training needs.

Model Program for Personnel Preparation in Secondary Schools
University of Pittsburgh
Learning Resource Development Center
Pittsburgh, Pennsylvania

A concern for providing inservice training for secondary education personnel in the Pittsburgh Public Schools led to the development of this program. Needs assessment techniques used for identifying training needs evolved during the first two years of the project. The training program that emerged was flexible and based on the needs of teachers in each building.

Other noteworthy staff development models that incorporate needs assessment are Project Interserv (1979) in Massachusetts and School Based Placement Committees (Harbin & Pelosi, 1979) developed at the University of North Carolina at Chapel Hill. Project Interserv, established through funding from Title IV-C of the Elementary and Secondary Education Act, and supported locally by the Attleboro, Massachusetts School System, offered more than 75 workshops based on the results of a needs assessment. Project Interserv involves teachers in planning and implementing a program for professional development according to their needs. This project has received
validation from the Massachusetts State Department of Education as an exemplary model for state diffusion.

The School Based Placement Committee model of staff development is a response to the changes brought about by Public Law 94-142 in the way school systems provide services to children with special needs, i.e., more school personnel are involved in a very different process. Harbin and Pelosi, developers of the model, state that the needs assessment component of the program is critical because it can help make training more efficient. Analysis of needs assessment information can help staff development planners know who needs what training and who does not. They feel that not only is it a waste of resources to provide training to an individual who does not need it but is also boring and reduces the credibility of the training program.

In 1977, King, Hayes and Newman, in an article about inservice education asked "Why do teachers, who almost universally appear eager to improve their professional performance, frequently respond with disdain or hostility to local inservice efforts" (p. 686). The reason given involves the lack of assessment of needs and substantiates the importance of the linkage between inservice education and needs assessment. The authors, based on input from 1,300 practitioners, reported that a genuine effort to identify all local needs, wants or problems that might be met through inservice education was a component of all successful programs. In addition, the determination of needs must not be made unilaterally by administrators, superintendents, or
outside experts. Ingersoll (1976) indicated that decisions as to contents, form and arrangements for inservice education have typically been handled at the administrative level with little input from teachers. Teachers feel totally left out of the decision making process that has a direct bearing on their professional welfare (Rubin, 1971) and their attitudes reflect a general feeling that most inservice education is not responsive to their own needs (Brim & Tollett, 1974). Essentially, planners of inservice education programs have not taken advantage of what may be the single most important source of information for inservice training, teachers (Meade, 1971).

Identification of Good Practices in Needs Assessment

According to Kuh (1980), needs assessment has grown from an informal, subjective judgment by a few individuals to a set of systematic procedures that form the beginning of the planning process. Needs assessment, however, is still evolving and what works best in identifying needs in different educational settings is not yet known. Eastmond (1976) writes that, although a needs assessment appears simple and straightforward, there are some problems in actual implementation.

The Evaluation Center at Western Michigan University (1981) newsletter regarding needs assessment points out that the call to conduct needs assessments and use of the resulting data as a basis for program planning brought with it a promise of improved program design. Criteria on which programs could be judged would also be developed. In practice, however, program planners had difficulty figuring out
what constituted a good needs assessment. For example, massive data collection efforts left planners wondering what to do with all the information. Others took a more practical approach and assigned one person the task of identifying needs. Both strategies were criticized for their narrowness, data collection activities, use of resources, and so on. A disappointing discovery came when planners realized that their need assessments had little effect on planning or evaluation.

Problems notwithstanding, authorities regarding need assessment do point out certain practices that are thought to be integral parts of any good need assessment. These points will be reviewed in this section.

The first point of consideration is the need for collaborative planning, monitoring and decision-making in the needs assessment process. Mann (1980) suggests that planning should have the broad base involvement of administrators, teachers and community members for maximum effectiveness. Klein (1971) advocates including parents, teachers, students and others in goal construction. In special education, involvement should be extended to include related services and other support personnel. The Evaluation Center (1981) states that the trend toward collaboration seems to be an appropriate step for many programs and has several advantages:

1. Collaboration assists in gaining political support for the inservice training program.

2. Staff with common concerns who might otherwise not meet are brought together.
3. It has potential for taking into account many perspectives on training needs.

Collaboration can also assist in the division of labor. Activities for planning as well as monitoring the needs assessment can be assigned to various team members. In this way no one person will become overwhelmed and thus possibly defuse the effort.

Decision-making may also be more credible through collaboration. Participants in the needs assessment process would more likely feel that their particular needs are being presented. Also, after needs are identified and prioritized the obligation of justifying the outcome is shared by numerous people.

Lastly, collaboration among instructional, support, administrative and other personnel would encompass the four groups most often included in state inservice training plans (Rube, 1978).

A second point is that needs assessment data should include the views of a variety of concerned parties; i.e., parents, teachers, administrators, students, school board and the public (Utz & Glick, 1978). According to Stiltner (1978), the involvement of such personnel serves to increase the validity of the needs assessment results and the commitment of participants to develop and implement plans to meet identified needs. King, Hayes and Newman (1977) report that a genuine effort must be made to identify all local needs, wants or problems that might possibly be met through inservice programs. Furthermore, they state, that a common ingredient in all successful inservice programs is that the determination of need is
not made unilaterally by an administrator, supervisor or outside expert; it is made from suggestions of recipients of inservice programs. Mullen (1976) stressing the need for broad based involvement has developed a gaming procedure to assist in the interaction and cooperation of all parties.

Analysis of data from the needs assessment is a third consideration. Haller (1982) and other colleagues caution against using machine coding for survey research. In survey research there are no incentives for carefully following instructions. As a result, there is potential for a large number of inaccuracies made by respondents. Also, Kuh (1980) states that in many cases elaborate statistical compilations are not necessary when using a survey questionnaire.

Davis (1980) points out that although computerized questionnaires make it possible to handle large amounts of data in quick fashion, many people tend to react negatively because they feel their real needs will not be revealed. When a needs assessor decides to use a questionnaire, some of the techniques that may enhance the credibility of the questionnaire (e.g., personal administration) should be explored. A personalized approach to needs assessment is critical because it is a way of establishing trust. Mann (1980) states that trust is the guideline of the entire needs assessment process. If trust can be instituted among the participants, the value of the needs assessment will be perceived in a positive light.

Needs assessment should be an ongoing process (Davis, Treadaway, White, Shuck, & Laurie, 1980). Basically, this point refers to a
cycle beginning with needs assessment, progressing to inservice training and returning to needs assessment. Once participants discover that planners of inservice training actually listened to and based workshops on their needs, their cooperation should increase. Related to this point is the need for flexibility in the inservice training process. Although needs are identified predominantly in the needs assessment process, they may arise at other times (e.g., during inservice workshops). If needs do arise in this manner, they should become part of the data base for future inservice planning.

In an attempt to pinpoint critical points in good needs assessment practices, Walker (1980), writing for the National Inservice Network's Training Needs Assessment Task Force asserts that two exist: 1) the involvement of local personnel for needs assessment and 2) a flexible and continuous needs assessment effort.

Need Assessment Models

In 1977, Witkin wrote that, in the last ten years, there has been a rapid increase in models, tools, instruments and kits for assessing educational needs in various institutional settings. The initiating force, according to Witkin, has been requirements by state and federal laws that educational agencies conduct a needs assessment for program planning. Kuh (1980) states that, in times of diminishing resources, the allocation of funds to improve the standard of living or educational level of all persons is usually challenged. Thus, the determination of needs is essential to substantiate new programs.
Understanding the needs assessment process and how to conduct it effectively, however, presented problems for many program developers. As a result, a large variety of needs assessment models have been developed and, as stated by Kuh (1980), it has not yet been determined what works best in identifying various types of needs in different educational settings.

Given the abundance of needs assessment citations in the literature, the intent of this section, then, is to provide a summary of the types of models available, describe specific models relevant to inservice education and list certain features incorporated in most needs assessment models.

Summary of Existing Needs Assessment Models

As previously mentioned, the literature is replete with descriptions of needs assessment models. For example, Pyatte, Knight, Breivogel, and Durall (1976) edited an annotated bibliography of 158 entries; the Alameda County (California) School Department (1976) described 25 needs assessment models and the Rhode Island Department of Education (1978), in a technical assistance document, described 23 approaches to needs assessment. Witkin (1977) reviewed and briefly described the essential components of several widely used needs assessment instruments and methods. The models and instruments were grouped into the following sections: (1) goal rating procedures, (2) methods for gathering
performance and other data on existing conditions, (3) discrepancy survey questionnaire, (4) complete kits for school use, (5) futuring techniques, (6) specialized techniques, (7) state and regional models, (8) community occupational needs assessment, and (9) communication focused methods.

A simple approach to needs assessment is ranking goals for importance and prioritizing them for program development. A school system may develop its own goals or use lists of goals from other sources.

A common method of determining the present status of goals is to survey various constituencies for their perceptions of current conditions. Student and institutional data are often used as headings to be included in the questionnaire.

According to Witkin (1977) the discrepancy approach to needs assessment can be considered to be the classical methods of assessing educational need. Further, she states, that in some way, most of the discrepancy models of needs assessment draw in the work of Kaufman (1972). In the discrepancy model, gaps are identified between goals and the current status of those goals.

Regarding kits, the author described five that are suitable for school district or building use. Three are models using discrepancy based assessment, one is a non-discrepancy-based set of instruments
and one is a do-it-yourself kit for school districts to develop their own indicators of pupil need, rather than providing developed instruments. The focus of the assessments are geared to student performance and comprehensive school planning.

In futuring models, assessment is undertaken to identify institutional and student needs by projecting what society might be like 20 to 30 years from the present and using possible future conditions for present planning.

Witkin also reported on two specialized techniques related to needs assessment. One, the critical incident, was formulated to identify critical factors in human performance in military situations. Basically, it collects direct observation of human behavior from which goals and objectives are developed. The second, fault tree analysis, is derived from systems safety engineering and is used in education to predict the most likely ways a system or part of it may fail.

When state or intermediate educational agencies desire to assess needs in a large geographical area, multi-pronged approaches are normally used. Activities included are questionnaires in which citizens and educators rank goals, telephone or person to person interviews, public opinion surveys, local conferences, examining student test scores and creating committees or task forces.

Lastly, Witkin describes models for assessing community occupational needs and models that emphasize in-depth communication as an assessment method. The purpose of the community occupational needs model is to compare the needs of the community with the local
college curriculum. The communication model utilizes mass media techniques as a method of sharing and gathering needs assessment data.

Trimby (1979), provides a detailed comparison of four needs assessment models developed individually by Kaufman, Coffing, Lee and Harless (cited in Trimby, 1979) (See Figure 3). Kaufman is concerned that educational personnel learn to define problems before determining solutions. In implementing his model, he hopes to avoid poor decisions in designing a curriculum and thus improve educational planning. Also, he feels that to be truly useful a needs assessment should include the survival of learners after they legally leave educational institutions.

Coffing's Client Need Assessment Model is similar to Kaufman's model. Both are discrepancy models and are focused on identifying and prioritizing gaps. In addition, both emphasize planning stages and are geared towards educational change. Two differences between the models are that Coffing places more focus on clients' perception of needs, rather than the assessor's and Kaufman provides a more detailed sequential outline of his model.

Lee is also interested in the client. He feels that those who receive services from a system should participate in determining what those services should be. His model is a discrepancy type and is also concerned with educational change. This model differs from the two previous ones in that Lee's emphasis is on the affective as well as cognitive aspects of education.
<table>
<thead>
<tr>
<th>Steps or Stages:</th>
<th>Kaufman</th>
<th>Coffing</th>
<th>Lee</th>
<th>Harless</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Commit to planning.</td>
<td>1. Prepare to do client need assessment.</td>
<td>Phase I: Identify desired educational outcomes for educational system.</td>
<td>1. Define and describe the problem.</td>
<td></td>
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<tr>
<td>2. Identify partners.</td>
<td>2. Focus the effort.</td>
<td>Phase II: Assess the degree to which students are achieving the desired outcomes.</td>
<td>2. Hypothesize causes.</td>
<td></td>
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<tr>
<td>3. Select partners.</td>
<td>3. Identify the clients, needs, and alternatives.</td>
<td>Phase III: Initiate problem-solving to meet needs.</td>
<td>3. Test each hypothesis (compare “good job”).</td>
<td></td>
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<tr>
<td>4. Select data collection methods and means.</td>
<td>4. Define the needs.</td>
<td>4. Determine solution alternatives.</td>
<td>4. Determine solution alternatives.</td>
<td></td>
</tr>
<tr>
<td>5. Let someone else do Public Relations.</td>
<td>5. Measure the status of the needs.</td>
<td>5. Weigh the costs and effects of each alternative.</td>
<td>5. Weigh the costs and effects of each alternative.</td>
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<tr>
<td>6. Pilot-test the data collection methods and means.</td>
<td>6. Evaluate the utility of the information.</td>
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<td>7. Collect the needs data (including external data on survival).</td>
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<td>8. Re-cast in outcome gap terms, if necessary.</td>
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<td>9. Determine the agreed-upon gaps.</td>
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<td>10. Determine and reconcile disagreements.</td>
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<td>11. Rank order the needs.</td>
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<td>12. Select the needs for closure.</td>
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<table>
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<tr>
<th>Type of Model:</th>
<th>Discrepancy</th>
<th>Discrepancy</th>
<th>Discrepancy</th>
<th>Deficiency</th>
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<tbody>
<tr>
<td>Definition of “Needs”:</td>
<td>Needs = gap between current results and desired results.</td>
<td>Needs = aspects of people’s mental experiences, a cognitive concept of “what should be.”</td>
<td>Educational needs = discrepancy between two states of affairs (what is desired or should be, and what now exists, or is being accomplished).</td>
<td>Problems = how some actual situation deviates from a model situation.</td>
</tr>
<tr>
<td>Application: (Used for)</td>
<td>Responsible change, improving the effectiveness of educational planning, identifying problems to be solved.</td>
<td>Initiating educational change, program planning, implementation, control, and evaluation.</td>
<td>Planning and development. To satisfy educational needs (through successive approximations). Making decisions.</td>
<td>Analysis and solution of human performance problems. Decision-making, based on cost/benefit analysis.</td>
</tr>
<tr>
<td>Basic Goals:</td>
<td>Basic human survival in the external world.</td>
<td>Fulfilling those needs which are not being fully met now by school programs.</td>
<td>To provide sensing and monitoring data as feedback within a system that is constantly changing.</td>
<td>Build a general model for the specification, analysis, and design of solutions for classic human performance problems.</td>
</tr>
</tbody>
</table>

Figure 3. Comparison of Four Needs Assessment Models
Although business and industry is the focal point of Harless' model, it is similar to the three preceding models. He is also concerned with problem-solving and decision-making. He refers to his model as a deficiency-type, even though his definition of needs, how some actual situation deviates from a model situation, infers a gap or discrepancy.

Price (1977) refers to his model as a comprehensive needs assessment. The model, which is based on a need being defined as a discrepancy, must meet five criteria. First, it must involve a broad variety of persons. Second, in determining a need, the concerns of people are matched with the best information that is available. Third, the assessment is open ended; that is, the focus is to identify educational concerns from many populations rather than ranking or rating pre-determined lists. Fourth, the emphasis is on student needs or deficiencies, not institutional needs. Last, needs are reported in such a way as to provide maximum assurance that action will occur to meet the needs. The model incorporates eight sequential steps which are outlined in Figure 4.

Needs assessment models have been developed for specific purposes that are also general enough to be applied to other areas. Rimmer and Burt (1980) designed a needs assessment model for guidance and counseling program development. The assessment is conducted to establish program goals based on the skills of the counselor and on the needs of students, teachers and parents. The needs assessment process is composed of seven steps:
Figure 4. Comprehensive Needs Assessment (Price, 1977).
1. Form a planning committee to establish goals of the school guidance program.
2. Define guidance program goals based on needs of committee members and from professional role statements.
3. Develop instrument to survey selected participants.
4. Conduct pilot study to evaluate items on survey.
5. Administer instrument person to person.
6. Compile results.
7. Conduct a follow-up.

Greering (1980) developed a needs assessment model to identify developmental needs of principals. The needs assessment process consists of the following six steps:
1. Select a needs assessment committee.
2. Identify a listing of the job functions of principals.
3. Identify competencies needed to perform job functions.
4. Design a survey based on #2 and #3 and implement.
5. Compile and present results of survey.
6. Design a professional development program.

Miles (1979) proposes a needs assessment model related to curriculum. He points out four general stages:
1. Generate goals for school district curriculum areas and rank for importance.

2. Rate the present program according to goal statements derived in Stage 1.

3. Analyze the discrepancies between goal ranking (assessment of importance) and the program rating (determination of status quo).

4. Assign priorities to those discrepancies.

A final example is that of Peak and Brown (1980). They proposed a model to identify inservice needs of vocational educators serving special needs populations. Basically, a competency list is developed from other studies, practicing educators and experts. These competencies are then analyzed and a survey device is designed. Teachers, administrators, and experts then rank the importance of each competency and indicate how much time they spend on each competency. Needs are then identified from this data.

Examples of more explicit models are following.

The New Jersey State Department of Education (1974) developed a needs assessment handbook that reviews four models for identifying needs. The reviewed models were chosen for meeting the following criteria: widespread participation, comprehensiveness, field testing, replicability and reasonable cost. The four models, Dallas Planning Model, Fresno Planning Model, Phi Delta Kappa Planning Model and the Worldwide Planning Model are summarized below.
The purpose of the Dallas model is to involve educators, students, parents and the community as well as the Board of Education in assessing needs, assigning priorities and allocating resources as a part of the annual budgeting process. Program managers are assigned to each of the seven long range goals. They are responsible for evaluating program accomplishments and developing specific objectives and program budgets for five year periods. The needs assessment involves a 600 member committee representing teachers, students, principals, central office and other support staff. Needs assessment data are collected through a need assessment survey device. First, various district functions, programs and activities are rated; next, the same items are rated to indicate the desired future condition of each item; finally the data is reviewed to identify gaps between current and desired status of each item. Based on needs assessment results, program managers select future goals to be emphasized for the next year and implementation activities to meet those goals are then planned.

The Fresno plan involves a project director, a steering committee of 20 to 30 persons and participants in a community conference. A one day community conference is held at each school site in which participants list and rate problems that are keeping the school from doing the job it should and what the school should be doing for students. From this information the steering committee develops goal statements which are sent to the board of education for acceptance or rejection. A task force is then created to establish
objectives, programs and policies that will lead to the accomplishment of school's goals.

In the Phi Delta Kappa model educational goals, which are a predetermined part of the model, are ranked by a community committee of 40-80 people. Although the goals are predetermined, the school district may choose to change, delete or add other goals. A forced-choice technique is used to prioritize the given goals. Needs are assessed by committee members individually rating each goal to determine how well the school is meeting each goal. Mean scores of the individual ratings for each goal provide the board, administrator, and teachers with data to decide whether to revise existing programs or develop new ones for the district. As with the previous models, goals and needs are then converted into programs and policies.

Lastly, in the Worldwide model a committee is formed to manage and carry out the needs assessment. The committee should represent a cross section of the educational community. Goals for the district are determined after needs have been assessed. Information regarding needs are collected in various ways; i.e., surveying opinions, gathering existing data, conducting community concern conferences and speakups and summarizing administrative and evaluation data. Once all the data has been collected a committee is set up to organize and classify the concerns elicited by the various data collection activities. Goals and needs are converted into programs and policies using a problem solving approach to assure that identified needs are addressed.
A Classification of Needs Assessment Models

Given the abundance of needs assessment models that are available, a specific classification system that details similarities and differences among models may be an impossibility and, perhaps, not useful. There exists generic models that can be used in different situations, e.g., Coffing, Lee, Harless (cited in Trimby, 1979); models developed for a specific purpose that can be modified for other purposes, e.g., Peak and Brown (1980), Mosrie (1980), Lavin, Sanders and Passios (1975); and commercially produced needs assessment models designed for specific situations and which include kits for the practitioner, e.g., see Pyatte, Knight, Breivogel and Durall (1976) for 158 descriptions of models at different educational levels.

Kaufman and Harsh (1969), however, provide a general classification scheme from the perspective of competencies or goals; i.e., how are competencies and goals developed for use in the needs assessment process. They propose that needs assessment models can be classified as inductive (Type I), deductive (Type D) or classical (Type C). Each model is briefly summarized below.

Type I Model

Basically, this model begins with the generation of behaviors that are perceived desirable by a cross section of constituents. From these behaviors, goals are defined. These goals are then rated in some way as to their current status and what they should be. A significant discrepancy between current and desired status results in what is thought of as a need. Needs are then prioritized according to their
perceived value. Kaufman and Harsh include the development of objectives, programs to meet those objectives and implementation and evaluation of those programs into the model. This writer, although aware of the relationship between needs and programs to meet these needs, prefers to view a needs assessment as a separate but related component to educational programs. Thus, the inductive model would include steps up to and including prioritization of need. These steps would then feed into the educational model, e.g., inservice training.

Examples of the inductive model would be the needs assessment model for guidance and counseling program development design by Rimmer and Burt (1980) and Miles' (1979) model related to curriculum. Both models, presented earlier in this paper, develop goals from information provided by constituents and are specific to the local needs of the organization. Another point of consideration is that both examples do not include a specific program implementation as part of the needs assessment model.

**Type D Model**

In contrast to the inductive model, the model is initiated by identifying existing goals that are relevant to the organization. These goals may be found as a result of a literature search, from other agencies or from other models in use. Once goals are selected criterion measures are developed and are rated by the constituents to determine discrepancies between the goal and perceived performance on criterion measures. Again, objectives, program development and
implementation, and evaluation are components of this model. The Phi Delta Model (cited in New Jersey State Department of Education, 1974) is an example of the deductive model. The model comes intact with eighteen predetermined educational goals. These goals were developed by the California School Boards Association and are thought to be all encompassing. Another related example is the model developed by Peak and Brown (1980) to identify inservice training needs of vocational educators serving special needs populations. In this model a competency list was developed from other studies.

**Type C Model**

Kaufman and Harsh (1969) refer to this as the classical model. They frown upon it because the method of assessing needs and identifying goals are primarily administratively centered. It is composed of four basic steps: (1) generate goals, (2) develop programs, (3) implement educational programs and (4) evaluate. Each of these steps, most important the generation of goals, are undertaken by a few educators, many times administrators. As a result, the constituents for whom the needs assessment is being conducted are for the most part not included in the process. Any subsequent educational program may be inappropriate because needs were identified in an unsystematic may with little input from the recipients of the program.

Although this model is not viewed as being an effective way of assessing need, it is used. This model was not identified by examples in the literature, but as stated by state department personnel, it is used by practitioners in Illinois.
Although strategies for data collection are plentiful (Davis, 1980), most models include some paper and pencil device for this purpose. For example, in reviewing the 23 instruments described by the Rhode Island State Department of Education (1978), 17 were found to use questionnaires, 2 checklists, 1 the Delphi Technique and 2 goal ranking. The use of other strategies cited by Davis (e.g., interviews, telephone surveys, other group process techniques, and hearings) were virtually ignored.

In reference to prioritizing needs, most models used some form of percentage of items checked, rankings or some other indication of need.

The absence of distinct detailed need assessment models cited in the literature makes classification difficulty. As a result, Kaufman and Harsh's (1969) classification scheme appears to be most appropriate.

**Summary**

The resolution of a problem such as the one encountered by the Illinois Department of Specialized Education is a complex issue. The variables related to the problem are numerous and, thus, confound it. This review presented general systems theory as a basis for solving the problem. The principles in this theory are incorporated in the system approach and provide the researcher with a systematic methodology to confront the problem. The systems approach outlines a framework that allows the researcher to breakdown the contextual variables of the problem to better understand it. It also allows the
researcher to develop alternatives to problem resolution, to select one alternative and revise it, when necessary. The systems approach also fulfills the requirements of model building as found in the literature.

The development of a needs assessment model was essential for problem resolution. Models are basically abstractions of the reference system (real world) and present a viable way to interact with the major components of the system. Specific needs assessment models were described in this review. It was found that needs assessment models are difficult to classify, however, a simple classification system was presented. In addition, specific effective practices, as cited by authorities, were listed.

The objective in conducting this review of literature was to provide a foundation of information relative to resolution of the problem. Given this fund of information the next step is implementation of the problem-solving methodology. The next chapter will describe the design model as it relates to model building requirements and will detail each step of problem-solving methodology en route to resolution of the problem.
Chapter III

THE IMPLEMENTATION OF THE SYSTEMS APPROACH TO DESIGN AND VERIFY A NEEDS ASSESSMENT PROCESS MODEL

Introduction

The Illinois Department of Specialized Educational Service (IDSES) was faced with the resolution of a problem that affected local education agencies throughout the state. The problem involved the identification of inservice training needs of educators of handicapped children; i.e., many districts were employing unsystematic and unreliable methods for assessing these needs. As a result, educators were not receiving the pertinent additional training to enable them to provide quality service to handicapped children.

As previously stated, the IDSES sought to adopt a model for assessing training needs and planned to include the model as part of the technical assistance activities provided to local education agencies. The systems approach as described by Kaufman (1972) was chosen as the methodology because of its systematic process for problem resolution and because it fulfilled the model building requirements as stated by Greenberger et al. (1976).

This section will illustrate the relationship between the systems approach and model building and describe in detail the implementation of the problem solving methodology.
Relationship Between the Systems Approach and Model Building

One criterion for problem resolution was the development of a model. Certainly, the systems approach can result in something other than a model. For instance, a set of guidelines for implementing a needs assessment or the development of a catalog of commercial needs assessments could have resulted from implementing the systems approach. The IDSES, however, specifically requested a needs assessment process model. Figure 5 illustrates the relationship between the systems approach and model building.

Figure 5. Relationship Between the Systems Approach and Model Building.
The first connection between the system approach and modeling regards the reference system. The reference system is the needs assessment processes used in Illinois school districts. It represents a problem in Illinois and the solution lies in the development of a model. Solving the problem and modeling, though not one in the same, have an interrelationship. This is illustrated by the use of the systems approach as the problem solving methodology. Greenberger et al. (1976) state that theory, methodology and data are essential components of any model. The systems approach is founded on general systems theory; i.e., "there exists models, principles, and laws that apply to generalized systems, irrespective of their particular kind ..." (van Bertalanffy, 1968, p. 32). In addition, a needs assessment process itself can be considered a system. A model that has been developed denotes specific components that work together for a common purpose; i.e., to identify inservice training needs. Thus, as indicated in Figure 5, the systems approach provides theory for model building purposes.

The systems approach also provides the modeler with a methodology to construct the model. It equips the modeler with a tool, similar to the artist using a brush. The systems approach, as described by Kaufman (1972) and used in this research, is a six step process. This process guides the modeler in abstracting from the reference system those variables that are deemed essential to the model and negates the need for the modeler to develop an original methodology.
The requirement for accessing data is also met through the use of the systems approach. According to Greenberger et al. (1976), data provide a link between a model and its reference system. The entire systems approach, particularly the steps emphasizing problem identification and ongoing revision, allows for the modeler to access the reference system for data. Ongoing revision is critical to model development because, as Bross (1953) points out, the periodic return to the reference system for additional information is an important part of the relationship between the model and data.

Implementation of the systems approach, linked with the requirements of model building, resulted in the development of a needs assessment process model that fulfilled the needs of the Illinois Department of Special Educational Services. The detailed description of that implementation will be provided in the following section.

Step 1 - Identify the Problem

Identification of the problem is the first step in the systems approach to problem solving by Kaufman (1972) because it sets the stage for future steps. To assist in the identification and understanding of the problem a brief summary of needs assessment activities in Illinois is described. Afterwards, specific data regarding the problem is reviewed.

Needs Assessment Procedures as Outlined by the Illinois Department of Specialized Education Services

According to the mandates of Public Law 94-142, The Education for All Handicapped Children Act of 1975, each state must submit
an annual program plan to the Commissioner of Education through the state educational agency (SEA) in order to receive funds under Part B of the Act. This plan must provide a description of programs and procedures for the development and implementation of a Comprehensive System of Personnel Development (CSPD) which includes, but in not limited to, the inservice training of special and general educational staff as well as related services and support personnel. As indicated under Section 121a382 of the Federal Register (1977) each annual program plan must describe the process used to identify areas of inservice training needs and specify training needs and groups requiring training.

In order to meet the federal mandates for a Comprehensive System of Personnel Development (CSPD), the Illinois State Board of Education, Department of Specialized Educational Services, has established a multifaceted approach to meet the needs of children, parents, service suppliers and educational personnel throughout the state. Since fiscal year 1977, the Illinois State Board of Education has required that local districts set aside 10% of the P.L. 94-142 flow through monies for inservice training purposes. The Illinois State Education Agency views this 10% set aside funds as having a significant impact within the state upon staff development. As such, the SEA has developed procedures that assist the local districts in generating plans for the expenditure of those funds. Briefly, the procedures are stated below:
1. From January to March, SEA staff meet regionally with directors of special education and persons responsible for inservice planning at the local level. A primary objective of these meetings is to provide applicants with assistance regarding methods of collecting and assessing needs data and prioritization of those needs.

2. From March through May, local districts implement needs assessment programs, tabulate results, determine training needs and prioritize those needs.

3. By June 1, a staff development plan is submitted to the SEA (See Appendix A). The total budget for the plan is based on the required 10% set aside money.

4. Once the local CSPD has been submitted to the SEA, SEA staff provide technical assistance for each applicant to review, assess and revise, if necessary, the local plan.

5. All local CSPD plans are then reviewed by the SEA CSPD coordinators and approved based on specific criteria. Included as part of this criteria is evidence to support the collection, review and analysis of needs assessment data as well as the manner in which the information was provided and by whom.
According to IDSES, specific problems were observed by SEA staff in LEA implementation of procedure 2 (needs assessment programs) and procedure 5 (the collection, review and analysis of needs assessment data and the manner in which information were provided and by whom).

Collection of Data to Identify the Problem

The objective of Step 1 is to determine the exact nature of the problem. One scheduled activity to provide data for problem identification was to schedule communications with IDSES staff. The first communication took place at the Illinois State Department in January 1981. At that time, and as indicated in later communications, the problem focused on the identification of basic needs for the total special education program (See letter dated January 29, 1981--Appendix B). The needs assessment would identify current levels of services, levels of needed service and the efficiency and effectiveness of current resources. From this information a determination could be made as to what additional services would be needed. Inservice training activities could then be planned accordingly. The remaining systems approach steps were then initiated based on the data collected at that time.

The implementation of the revision step, however, put a temporary halt in the problem-solving process. A second meeting with IDSES staff on August 11, 1981 revealed that the problem was not correctly identified. Kaufman (1976) warns that the problem must be stated as
clearly as possible in order to stay on path to the resolution of the problem. The confounding issue, however, was that although the IDSES may have clearly stated the problem in past communication, there was a shift to a different problem. Even though human and fiscal resources were expended in a futile effort, to this researcher the revelation was positive; i.e., the problem could now be focused on more clearly. Also, the revision step, performed as it was expected to.

During the August 11, 1981 meeting, IDSES staff indicated that the needs assessment should be directed toward personnel development needs rather than being a comprehensive model (See letter dated September 24, 1981—Appendix B). Further, the Program Development Section Manager and the Grants and Contracts Unit Assistant Manager of IDSES stated that they had specific concerns regarding present needs assessment and inservice training practices within the state. Specifically, these concerns dealt with how needs were assessed and the expenditure of set aside funds to address those needs. For example, one district cited spent one thousand dollars for a popular speaker who presented to teachers a workshop on coping with death. It was questioned how this need was identified and, if identified through an appropriate process, what alternative activities could have better met this need. Implicit in this example is inefficient needs assessment planning on the part of local district personnel. Additional input from IDSES indicated that some districts completed a detailed needs assessment process while
others relied on the perceptions of a few administrators. This input, which was the result of observations of state monitoring teams, was confirmed through communications made by this researcher with directors of special education in the state. From a field based site in northern Illinois this researcher conducted a person to person interview with a regional special education director and conducted telephone interviews with three other regional special education directors and two local directors. The result of these interviews revealed that, indeed, some districts developed and implemented detailed needs assessment while others completed the state needs assessment forms with little or no input from district personnel. In effect, then, a district could complete the needs assessment application for inservice funds with minimal effort.

As input from practitioners in the field was reviewed, the question of why needs assessment were being conducted with little effort from school personnel arose. Special education directors pointed out that many of their colleagues were not schooled in conducting needs assessments and indicated that many administrators thought it to be an overwhelming task; i.e., it was simpler to complete the application without conducting a lengthy needs assessment process.

As previously mentioned, problem identification is critical to the problem resolution process. Therefore, in addition to the two meetings with IDSES staff, weekly meetings were held with
staff members from the Tri-State Midwest Regional Resource Center (TSM-RRC) to discuss problem identification. These interactions assisted in focusing the problem and also generated questions to be answered by IDSES staff. As a result, during the month of September 1981 for example, ten telephone calls were made by this researcher to IDSES staff to clarify input regarding the problem.

From the above activities, it was concluded that the problem confronted by the IDSES was that unsystematic and unreliable needs assessment procedures were being conducted in the state and this resulted in the inaccurate identification of inservice training needs for school personnel (See letter dated September 24, 1981—Appendix B).

Step 2 - Determine Solution Requirements/Solution Alternatives

Ideally, when implementing the systems approach to problem solving, efforts are first concentrated solely on problem identification, then in determining solution requirements and alternatives. This, however, is unlikely to occur because it is difficult for individuals to expend energies in communicating on one specific topic. This is precisely what this researcher experienced and data collection for this section will encompass some of the means used in problem identification.

Determine Solution Requirements

From the outset of communications with the IDSES a needs assessment model was proposed as the major solution requirement. The
meeting on August 11, 1981 involved discussion regarding solution requirements. The discussions are summarized in a letter dated September 24, 1981 to the Assistant Manager, Grants and Contracts Unit (See Appendix B). The letter states that the model should be appropriate for local education agencies and should encompass the concerns of various personnel and consumers. Also, the instrument (model) should incorporate the ten areas of inservice needs previously identified by the state department and it should be constructed so that machine scoring is possible. Lastly, the needs assessment should somehow assure that directors plan for the use of set aside money for inservice training.

After staff discussions of the design criteria resulting from the August 11 meeting, further clarification of specific points were needed. In the systems approach, the revision step is initiated to gain additional understanding; in modeling terms, this illustrates Bross's (1953) point about the need for the modeler to periodically return to the real world for additional data. A set of questions were developed to present to the Assistant Manager, Grants and Contracts Unit in a teleconference on September 21, 1981. These questions directed attention on: 1) the nature of a process model, 2) the types of personnel participation in the process and 3) the content, size and format of the needs assessment instrument. The results of the telephone communication furnished data that helped to define the solution requirements. The needs assessment model must include some type of instrument. The IDSES had no predetermined set of respondents
but the state guidelines for set aside money require that various staff be involved (e.g., teachers, related services personnel, parents, administrators). It was also pointed out that there isn't a set of needs areas to be included in the instrument and that there are no limitations regarding size and format except that the instrument will be completed by a variety of respondents so it should be kept brief and flexible. In addition, the model should be inexpensive to implement.

This input was then reviewed in two meetings with TSM-RRC staff. Of the issues raised at these meetings, two were considered to be of prime importance. First, the components of the process model needed to be identified. Should the model, for example, be represented by a set of instructions or, perhaps, by graphic illustrations? Second, did the IDSES, through monitoring activities, identify need areas that should be included in the content of the model? In order to help clarify these and other issues a meeting was scheduled with IDSES staff on October 20, 1981 (See letter dated October 13, 1981--Appendix B).

The outcome of the meeting provided reinforcement of some of the solution requirements stated previously (e.g., a brief but flexible instrument) and further clarification of what the IDSES perceived necessary to solve the problem (See letter dated October 27, 1981--Appendix B). Generally the IDSES was expecting an introduction that provides background information regarding the need and use of the model, a process model, a section addressing training, decision
making and tabulation of data and a needs assessment instrument. Also, the word process was defined by the IDSES as a generic term referring to the administration of the needs assessment.

A Summary of Solution Requirements

The process model, because of proposed statewide implementation, should be constructed with flexibility and adaptability in mind. School districts in the state vary in size from small student populations in rural areas to large city school districts. Also, the model should be appropriate for the local district as well as the joint agreement. A joint agreement is a regional service area whose main function is to provide programs for local districts with small numbers of handicapped children.

The instrument, as part of the process model was to be general in nature and brief. The content should not be specifically detailed for one type of respondent and the total time to respond to a survey should be kept to a minimum, i.e., not exceeding thirty minutes. If possible, the content should be designed to allow for the machine scoring of responses.

Another requirement was that the survey should be appropriate for input from a variety of sources. The IDSES asserts that needs should be based on responses from those in contact with handicapped students (e.g., special and regular education administration and instructors, support personnel, parents).

Lastly, the model should include instructions for implementation of the process, directions for administering the instrument and be inexpensive for local districts to fully implement.
With the solution requirements in place, the next step in Step 2 was to develop solution alternatives.

**Develop Solution Alternatives**

The primary objective in developing solution alternatives was to gather information regarding needs assessment practices, models and instruments that related to the points outlined in the solution requirements. Activities included conducting computer-based searches of ERIC through the Mechanized Information Center at The Ohio State University, and contacting other projects (e.g., National Inservice Network, Bloomington, Indiana; The Evaluation Training Consortium at Western Michigan University; Project Interserv, Attleboro, Massachusetts; Technical Assistance Development System, Chapel Hill, North Carolina), state education agencies (e.g., Ohio, Oklahoma, Maine), other Regional Resource Centers in the national network and regional and local educational service delivery centers. The strategy, then, was to attempt to match information received from these sources with the solution requirements.

Chapter II reviewed needs assessment models and summarized what experts feel to be successful needs assessment practices. In reference to the development of a model a few identified successful practices are reiterated.

Most needs assessment programs are implemented by a needs assessment team. For example, in the Regular Education Inservice Project in Reidsville, North Carolina (cited in Davis, Treadaway et al., 1980) a leadership team was created that included the project director and
seven special educators based in the district. Generally, a team's responsibility is to oversee the needs assessment process and to orient district staff to this process (Melton, 1977). Specifically, the team's responsibilities involve the identification of data collection strategies and the analysis and prioritizing of data.

Another practice related to the type of respondents. Certainly, respondents should include those persons for whom the needs assessment is directed towards. This will vary according to situations, but most needs assessments geared to the inservice training of educators of handicapped children include teachers, administrators, parents, related service personnel (e.g., school psychologists) and other support staff. This is evidenced by the needs assessments instruments included in Appendix C.

Data collection strategies should be based on the particular concerns of each individual situation and be realistic in terms of resources available. Davis (1980) cites a number of strategies ranging from questionnaires to interviews. The IDSES had stated that an instrument (survey) should be developed to assess needs and that the instrument should be constructed to enable computer scoring. Davis (1980) points out that to increase the credibility of questionnaires (survey type instruments), personal administration of these questionnaires should be explored. This researcher assumed that personal administration involves person-to-person or person-to-small group situations that allows for unlimited communication between the administrators and the respondents. Computerized scoring posed a
challenge to developing an instrument because there are districts in Illinois that do not possess computer capabilities. This problem will be responded to in a following section on instrument development.

To assist in the development of an instrument for the needs assessment process model, thirty instruments were collected and reviewed (See Appendix C for specific examples). The purpose of this activity was to gain insight into the format and content of these instruments. Examples of instruments include the following:

1. Oklahoma State Department of Education
   Comprehensive System of Personnel Development Needs Assessment Instrument
   This questionnaire lists a number of items under the three major headings of 1) Screening/Evaluation, IEP Development, Placement Recommendation, Implementation and Review Process, 2) Parent Involvement, Counseling and Training, and 3) Special Services Administration. Information regarding staff position is also included. Respondents must check their position in the school district and those items for inservice training.

2. Nevada Department of Education
   Opinion Survey for Special Education Inservice Training
   This instrument lists a smorgasboard of inservice training topics. Respondents must check their
position in the school district and rate each item in terms of need on a scale of 1 to 5 with 1 being little need. The topics relate to instruction, behavior management, assessment, students' social-emotional development, special education administration and school-community communication.

3. Texas Education Agency

Inservice Priority Survey

The format for this survey combines both checklist and rating activities. Detailed instructions request that respondents rate items to reflect the level of competency one should have in comparison to the level of competency one actually holds. In addition, respondents check each item that is felt to be an immediate priority for training. Items are listed according to major headings (e.g., Assessment/Diagnostic Procedures) and subheadings (e.g., Instrument Development). A respondent information checklist is also included.

4. New York State Education Department

Office of Education of Children with Handicapping Conditions

This survey takes the Individualized Education Program and breaks it down into six components:
1) Appraisal, 2) Development of Educational Program, 3) Placement, 4) Implementation of Educational Program, 5) Education of Child Performance and 6) Review of IEP Process. Respondents number the steps in priority order (1 through 6) to indicate the areas in which they need training. Next, respondents rate items under each component as to importance and the person's knowledge of the item. Lastly, space is provided for respondents to indicate training they would like to receive but was not assessed on the form.

The information described, thus far, was considered in developing solution alternatives. Prior to the presentation of specific solution alternatives, a brief discussion of a specific solution requirement is essential to the understanding of these alternatives.

The most significant solution requirement was the fact that the needs assessment model had to be applicable throughout the state of Illinois. Illinois is one of the seven largest states serving handicapped children in the United States (Special Education Programs, RFP 83-025, 1983). As such, its large geographic area and diversity of population sizes in school districts added to the complexity of the requirement. For example, the process model had to be developed so that implementation in large urban and small rural school districts was feasible. Another difficulty with this solution
requirement was that, although districts must operate according to state and federal statutes, there is some flexibility as to the way in which school districts meet those requirements. This refers to numbers and types of staff, organization of the school districts, types of services provided and the nature of needs of the school staff.

Proposed Solution Alternatives

Four specific solution alternatives were developed. They are referred to as Models A, B, C and D. Although a survey instrument was a key part of each process model, it is discussed in a separate section.

Model A (See Figure 6) is basically a three step process in implementing a needs assessment. Generally, Step 1 involves six
substeps. First, a district staff member is designated as the needs assessment spokesperson. Next, key personnel in the district are selected to serve on the advisory committee. The remaining steps include defining the purpose and goals of the needs assessment, deciding on timelines, purpose(s) and goals for the needs assessment and target audience, and outlining advisory committee members' roles and responsibilities. The second step involves a series of meetings with the advisory committee and a sampling of the target group. The objectives of these meetings are to generate major need areas and specific items for each area and to prioritize those items to identify topics for inservice training. Step three is the actual implementation of inservice training and the evaluation of the training activities; i.e., did the training activities effectively address the identified needs?

Model B is a five step approach to implementing a needs assessment process (See Figure 7). Step 1, which involves the creation of a needs assessment advisory committee, is the same as in Model A. The development of need areas by the advisory committee and target group and the explanation of purpose(s) and goals (Step 2) is also the same as Model A. Strategies regarding instrumentation, data collection, data analysis and need prioritization are detailed in this step for Model B. In reference to instrumentation, Model B incorporates an existing instrument, most likely commercially produced. The key is in locating an existing instrument that is compatible with the needs areas that were generated. Step 3 involves
Figure 7. Model B Solution Alternative.
the dissemination of the instrument to the target audience and
Step 4 relates to the collection and analyses of the data. In some
instances instrument dissemination and data collection will be
completed at the same time. For example, a meeting may be held,
respondents complete the instrument and the instruments are immedi-
ately collected. Step 5 includes the same activities as in Model A.

Model C is the same as Model B except that a needs assessment
instrument is developed by the advisory committee. The primary reason
for this is that the instrument can be tailored to the specifications
of the district.

The last solution alternative, Model D, is similar to the other
three models (See Figure 8). Step 1 again involves the formation of
a needs assessment advisory committee. Step 2 calls for the develop-
ment of strategies for instrumentation, data collection, data
analysis and need prioritization. Instrumentation is left open to
the advisory committee and a decision must be made regarding using
an existing instrument or developing one that is district specific.
Steps 3 and 4 are also similar to the other models and they involve
instrument dissemination and data collection and analysis. An
important difference in Model D is the fact that inservice training
and evaluation of the training is viewed as a separate process.
Although directly related to the needs assessment process, inservice
training, in this model, is thought to be outside the realm of the
advisory committee.
Each model, whether the last step is training and evaluation or data collection and analysis, is circular in nature. This means that data regarding the process is fed back to the advisory committee directly or through process strategies.

The intent in developing solution strategies was to develop general models that would be appropriate to the needs of the IDSES. Certainly, the final model will be presented in more explicit detail.
Step 3 - Select Solution Strategy

The next task that faced this researcher was to select the model that represented the most appropriate solution strategy. Two major activities were included in this step. First, numerous meetings were held with TSM-RRC staff to discuss the four models. The second activity was a meeting with educational administrators who have been involved in needs assessment activities and/or had knowledge of school systems in Illinois.

Initial discussions with TSM-RRC staff centered on meeting the requirement that the needs assessment process model be applicable throughout the state of Illinois. Generally, it was felt that a needs assessment advisory committee was an essential component. Staff also felt that the instrument used to collect respondent data presented a problem because of the differences in school districts throughout the state. Therefore, it was proposed that providing school districts with choices regarding the instrument was important. Strategies for instrument dissemination, data collection and analysis and prioritization of need could be based on the nature of the instrument. A decision regarding a solution strategy was delayed until after further investigation into the solution alternatives.

On December 12, 1981 a meeting was held with a regional director and a local director of special education in Illinois, two directors of Special Education Regional Resource Centers in Ohio, the director of the TSM-RRC and this researcher. The objectives of the meetings were to discuss the four general needs assessment models and the
development of an instrument and to receive input as to which model was most appropriate. To assist in accomplishing these objectives each consultant was provided with information about each model and the proposed main topics indicating need areas to be included in a needs assessment instrument. These main topics were developed from reviewing other needs assessment instruments and from discussions with TSM-RRC staff. The proposed topics were: 1) P.L. 94-142, 2) Classroom Management, 3) Instructional Strategies, 4) Child Find/Referral, 5) Communication Skills and 6) Evaluation. The major results of the meeting are summarized below:

1. The consultants agreed that some of the six main topics should have more specific titles and that an additional heading of Special Services Administration might be included.

2. There should be three levels of involvement (choices) regarding the instrument. The levels were:
   a. an instrument that includes the six main topics and predetermined items under each topic
   b. an instrument that includes the six main topics but the items under each topic are developed by the school district
   c. an instrument that includes the six main topics but items under each topic
developed by the school district as well as other main topics that may be relevant.

3. Commercial instruments should not be included in the model.

4. Included in the process model should be a detailed list of implementation instructions. A summary of those instructions should be included on the needs assessment instrument.

5. Instrument content should be brief, to the point and be stated as clearly as possible.

6. Regarding the four models, Model D was most favored by the consultants. There was agreement that, although the needs assessment process and inservice training are directly related, they should be two separate processes.

The results of the December 12 meeting were discussed with TSM-RRC staff on two occasions. After the second meeting the decision was reached that Model D would be the selected solution alternative and that an attempt would be made to incorporate the three levels of involvement into the process model.

The selection of a solution strategy, in addition to being a distinct step in the problem resolution process, afforded an opportunity to use the revision component. By checking with sources in the real world (e.g., educators from Illinois) initial perspectives regarding proposed solution alternatives were discussed to determine
if modifications to those perspectives were necessary. Also, this step allowed additional data regarding the reference system to be collected.

Given the amount and quality of data available for decision making, the selection of the solution strategy was not a difficult chore. Knowing that the revision component of the problem solving methodology was always accessible, this researcher knew that the solution strategy could be modified, if necessary. The selection of the solution strategy was based on various data and permitted the next step of the methodology to be activated. It was in the next step, Implementing the Solution Strategy, that model development began to evolve into a tangible product.

**Step 4 - Implement Solution Strategy**

The needs assessment process model was developed during this step in the process. Model D was used as a reference point for model development. The solution strategy was implemented in two steps. First, efforts were directed towards the needs assessment instrument. Approximately thirteen revisions of the instrument, including a field test, were completed during the instrumentation process, however, only five specific revisions are highlighted in this text. Second, the process to implement the needs assessment was developed. The two steps were developed in concert with each other. Certain aspects of developing the instrument had a direct impact on the needs assessment process. These aspects will be discussed as they occur.
The first draft of the needs assessment instrument was based on specific information. First, a review of existing instruments was conducted to identify format options, instrument instructions, content and methods of respondent participation. Second, the main topics of need, with possible revisions, were included in the instrument. Third, the types of respondents included numerous personnel in school districts that were involved in some degree with handicapped children.

The first section of the instrument, illustrated by Figure 9, involves respondent information. Although the respondents would remain anonymous, some identifying data was necessary. Therefore, provisions were made for the respondent to indicate the regional service center the school district belonged to (Joint Agreement/Cooperative Name) and the school district. Attempts were made to include all personnel that were involved with handicapped children. Parents, though not usually thought of as staff members, were included because of their significant role in the special education process. Regarding format, the intent was to make the major respondent headings (e.g., Administrator) easy to recognize and the items under headings in the terminology used in the state.

Part II of the instrument, Inservice Need Category, outlined the main topics and subtopics (See Figure 9). The instructions were designed to provide respondents with a perspective of what was meant by "need" and the exact nature of their involvement with the instrument.
NEEDS ASSESSMENT INSTRUMENT

PART I - RESPONDENT INFORMATION

A. Joint Agreement/Cooperative Name ________________________________

B. School District Name ________________________________

C. Professional Capacity

1. Administrator
   a. ____ Special
   b. ____ Regular

2. Instructional Staff
   a. ____ Regular classroom teacher
      ______ Pre School ______ Elementary ______ Secondary
   b. ____ Special Education
      ______ Pre School ______ Elementary ______ Secondary

If Special Education, Indicate Students' Classification:
   ____ Non-Categorical
   ____ Severe/Profound Mentally Retarded
   ____ Educable Mentally Retarded
   ____ Orthopedically/Health Impaired
   ____ Visually Impaired
   ____ Learning Disabled
   ____ Behaviorally Handicapped
   ____ Hearing Impaired
   ____ Multiple Handicapped
   ____ Deaf/Blind

   c. ____ Physical Education Teacher
      ______ Pre School ______ Elementary ______ Secondary

3. Related Services Personnel
   Psychometrist
   ____ School Psychologist
   ____ Speech Therapist
   ____ Physical Therapist
   ____ Audiologist
   ____ Occupational Therapist
   ____ Medical Personnel
   ____ Reading Teacher

4. ____ Parent

5. ____ Surrogate Parent

6. ____ Hearing Officer

Figure 9. Needs Assessment Instrument - Draft One.
**PART II - INSERVICE NEED CATEGORY**

**Instructions:** Respond to each item below in the following manner:

First, indicate the number which best represents your perception of your own level of need regarding the skills or competencies listed below. The term "need" means your own perception of a discrepancy between the level competency you should have and the level of competency which you actually have. A high need indicates a large discrepancy and thus a high priority for training; a low need represents a minor discrepancy. For some of the areas listed, it may be that you perceive no discrepancy or need. Use the following code to indicate your responses: 0 = No Need, 1 = Very High Need, 2 = Low Need, 3 = Medium Need, 4 = High Need, and 5 = Very High Need.

Secondly, check ( ) the item(s) under each lettered category that you believe is an immediate priority target for training, regardless of your overall rating of the category.

### A. P. L. 94-142

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<tr>
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<th>2</th>
<th>3</th>
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<tbody>
<tr>
<td>1. Knowledge of due process procedures</td>
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<td>2. Knowledge of requirements of P. L. 94-142</td>
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<td>3. Knowledge of least restrictive environment guidelines</td>
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<td>4. Knowledge of what is required by law and regulation as necessary inclusion in IEP</td>
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<td>5. Knowledge of DEP format and how to use it</td>
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<td>6. Knowledge of confidentiality of information guidelines</td>
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<td>7. Other (specify)</td>
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### B. Classroom Management

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<th>3</th>
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<tbody>
<tr>
<td>1. Managing behavior in the classroom</td>
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<tr>
<td>2. Establish record keeping/management system</td>
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<td>3. Apply technique of behavior management</td>
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<td>4. Alter the classroom environment to accommodate student differences</td>
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<td>5. Other (specify)</td>
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</table>

### C. Child Finding/Referral

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</thead>
<tbody>
<tr>
<td>1. Assessing student's cognitive abilities</td>
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<tr>
<td>2. Assessing student's behavioral abilities</td>
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<td>3. Determining when a child should be referred for special services</td>
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<td>4. Determining student's strengths and weakness in difficult learning situations</td>
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<td>5. Developing observational-screening devices</td>
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<tr>
<td>6. Participating as a member of diagnostic teams where information is analyzed</td>
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<tr>
<td>7. Understanding the referral process</td>
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<td>8. Understanding and utilizing non-biased, multi-factored assessment</td>
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<tr>
<td>9. Knowledge of district/parent responsibilities in the referral process</td>
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<tr>
<td>10. Roles/responsibilities of district personnel (principals, counselors, teachers, related services)</td>
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<tr>
<td>11. Knowledge of assessment measures and techniques that can be used in the classroom</td>
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<td>12. Other (specify)</td>
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</table>
Figure 9 (continued)

Communication Skills

1. Coordination between home and school
2. Ability to communicate effectively with parents
3. Communication skills - teacher-teacher
4. Communication skills - teacher-administrator
5. Helping students develop an awareness and understanding of themselves and others.
6. Developing positive attitudes in normal children toward the handicapped child
7. Improving attitudes of adults toward the handicapped child
8. Other (specify)

Instructional Strategies

1. Develop instructional objectives
2. Match instructional materials to instructional objective
3. Use alternative instructional materials
4. Prioritize areas of instruction
5. Construct appropriate instructional materials
6. Knowledge of task analysis
7. Apply principles of learning to instruction
8. Individualizing instruction
9. Other (specify)

Evaluation

1. Knowledge of an ability to use systematic evaluation procedures in evaluating program effectiveness
2. Knowledge and use of systematic evaluation procedures in evaluating individual child progress
3. Knowledge of the components that should be evaluated
4. Revise program based on student progress
5. Ongoing assessment of student performance
6. Other (specify)

PART III - INSERVICE DELIVERY

A. Incentive
   Stipend
   Tuition (Academic Credit)
   Release time
   Other (specify)

B. Scheduling
   During school hours
   Weekday evenings
   Before school (early A. M.)
   Saturdays

C. Format
   Lecture
   Discussion
   Role playing or simulation
   Demonstrations
   Consultation in classroom

D. Location
   On site
   University
By rating each main topic, the respondent would indicate, generally, the need for inservice training in that area. By checking a sub-topic under a main topic, the respondent would provide more specific information regarding personal needs. Respondents could indicate under each main topic specific individual needs that were not assessed on the instrument. The content of the instrument was developed with input from other instruments and through brainstorming sessions with TSM-RRC staff. An attempt was made to keep the instrument brief to meet a solution requirement indicated by the IDSES.

Part III was added to the instrument to ascertain some general feelings of the respondents toward inservice training delivery (See Figure 9).

This first draft was disseminated to TSM-RRC staff for their review and comments. Interactions with staff by this researcher were conducted on an individual and group basis. The culmination of these interactions resulted in a revision meeting. Specific recommendations for revising the instrument are outlined below:

1. The major respondent categories (e.g., Administrator, Instructional Staff) should be set aside to facilitate respondent's identification of the appropriate category.

2. Paraprofessional should be deleted from the Related Services Personnel category because it was not compatible with terminology used in
Illinois. Also, the provision to specify other positions not listed on the instrument should be eliminated because respondents may invent titles and, thus, confuse data collection.

3. The main topic P.L. 94-142 should be expanded to include specific mention of the Illinois statute regarding the law.

4. Communication Skills main topic should be divided into two sections representing communication within the school setting and with the community.

5. The Evaluation main topic should be eliminated because the subtopics under it are contained in other sections.

6. Reduce the number of subtopics under Child Find/Referral and Instructional Strategies.

7. Change the word "knowledge" under the P.L. 94-142 main topic.

8. Reorganize Part III - Inservice Delivery by developing questions that precede each area.

The revised draft of the needs assessment is illustrated in Figure 10. Each of the eight recommendations were addressed in the revision of the instrument. The revised instrument (Draft #2) was forwarded to the IDSES under a cover letter dated January 12, 1982 (See Appendix B). While staff at IDSES were reviewing the instrument, meetings with TSM-RRC staff were held to discuss the revised instrument.
NEEDS ASSESSMENT INSTRUMENT

PART I - RESPONDENT INFORMATION

A. Joint Agreement/Cooperative Name

B. School District Name

C. Professional Capacity

Administrator

a. Special

b. Regular

Instructional Staff

a. Regular Classroom Teacher
   - Pre School
   - Elementary
   - Secondary

b. Special Education
   - Pre School
   - Elementary
   - Secondary

If Special Education, Indicate Student's Classification:

- Non-Categorical
- Severe/Profound Mentally Retarded
- Trainable Mentally Retarded
- Educable Mentally Retarded
- Orthopedically/Health Impaired
- Visually Impaired
- Learning Disabled
- Behaviorally Handicapped
- Hearing Impaired
- Multiple Handicapped
- Deaf/Blind

c. Physical Education Teacher
   - Pre School
   - Elementary
   - Secondary

Related Services Personnel

- Psychometrist
- School Psychologist
- Speech Therapist
- Physical Therapist
- Audioligst
- Occupational Therapist
- Medical Personnel
- Reading Teacher
- Paraprofessional
- Other (specify)

Parent

Surrogate Parent

Hearing Officer

Figure 10. Needs Assessment Instrument - Draft Two
PART II - INSERVICE NEED CATEGORY

Instructions: Respond to each item below in the following manner:

First, indicate the number which best represents your perception of your own level of need regarding the skills or competencies listed below. The term "need" means your own perception of a discrepancy between the level of competency you should have and the level of competency which you actually have. A high need indicates a large discrepancy and thus a high priority for training; a low need represents a minor discrepancy. For some of the areas listed, it may be that you perceive no discrepancy or need. Use the following code to indicate your responses: 0 = No Need, 1 = Very Low Need, 2 = Low Need, 3 = Medium Need, 4 = High Need, and 5 = Very High Need.

Secondly, check (✓) the item(s) under each lettered category that you believe is an immediate priority for you for training, regardless of your overall rating of the category.

A. Regulations/P.L. 94-142/Chapter 122/III. Rev. Statute

<table>
<thead>
<tr>
<th>Article 14</th>
<th>Low Need</th>
<th>High Need</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Information on due process procedures</td>
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</tr>
<tr>
<td>2. Information on requirements of P.L. 94-142/Chapter 122, Article 14</td>
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<tr>
<td>3. Information of least restrictive environment guidelines</td>
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<tr>
<td>4. Information on what is required by the law and regulations as necessary inclusion in IEP</td>
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<tr>
<td>5. Information on the IEP format and how to use it</td>
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<tr>
<td>6. Confidentiality of information guidelines</td>
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<td>7. Other (Specify)</td>
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</table>

Comment:

B. Classroom Management

<table>
<thead>
<tr>
<th>Low Need</th>
<th>High Need</th>
</tr>
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<tbody>
<tr>
<td>1. Manage behavior in the classroom: ___________ group</td>
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</tr>
<tr>
<td>2. Establish record keeping/management system</td>
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</tr>
<tr>
<td>3. Apply techniques of behavior management</td>
<td></td>
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<tr>
<td>4. Alter the classroom environment to accomodate student differences</td>
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<tr>
<td>5. Other (Specify)</td>
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</table>

Comment:

C. Instructional Strategies

<table>
<thead>
<tr>
<th>Low Need</th>
<th>High Need</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Develop instructional objectives</td>
<td></td>
</tr>
<tr>
<td>2. Match instructional materials to instructional objectives</td>
<td></td>
</tr>
<tr>
<td>3. Use alternative models for delivering instruction</td>
<td></td>
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<tr>
<td>4. Prioritize areas of instruction</td>
<td></td>
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<tr>
<td>5. Instructional strategies in subject areas Specify: __________________</td>
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<tr>
<td>6. Individualize instruction</td>
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<tr>
<td>7. Other (Specify)</td>
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</tbody>
</table>

Comment:
D. Child Find/Referral

1. Assess student's cognitive abilities
2. Assess student's behavioral abilities
3. Determine when a child should be referred for special services
4. Participate as a member of diagnostic teams where information is analyzed
5. Understand the referral process
6. Understand and utilize non-biased, multifactored assessment
7. Information on district/parent responsibilities in the referral process
8. Roles/responsibilities of district personnel (principals, counselors, teachers, related services)
9. Other (Specify)

Comment:

E. Staff Communication Within School Setting

1. Communication skills (Please Check)
   - Teacher - Teacher
   - Teacher - Administrator
   - Teacher - Supervisor
   - Teacher - Related Services Personnel
2. Help students develop an awareness and understand of themselves and others.
3. Develop positive attitudes in normal children toward the handicapped child.
4. Develop positive attitudes in building personnel toward the handicapped child.
5. Other (Specify) ___________________________________________________

Comment:

F. Communication - School and Family

1. Ability to communicate effectively with parents
2. Improve attitudes of adults toward the handicapped child
3. Work effectively with bilingual/bicultural families
4. Establish and effectively use parent advisory groups
5. Ability to implement parent training sessions
6. Other (Specify) ________________________________________________

Comment:

G. Special Services Administration

1. Supervision of personnel
2. Evaluation of special education programs
3. Funding of special education programs
4. Planning services for handicapped children
5. State/federal regulations/policies/procedures
6. Other (Specify) ________________________________________________

Comment:
PART III - INSERVICE DELIVERY

A. What incentive for inservice training would most encourage you to participate?
   ___ Stipend
   ___ Tuition (Academic Credit)
   ___ Release Time
   ___ Salary Step Credit
   ___ Certification Renewal
   ___ Other (Specify) ______________________________

B. When would you prefer inservice training to take place?
   ___ During school hours
   ___ Weekday evenings: ___ After school
      ___ Early evening
   ___ Before school (early A.M.)
   ___ Saturdays

C. Which of the following presentation techniques for inservice training would you prefer?
   ___ Lecture
   ___ Discussion
   ___ Role playing or simulation
   ___ Demonstrations
   ___ Consultation in classroom
   ___ Other (Specify) ______________________________

D. Where do you prefer inservice training to take place?
   ___ On site
   ___ University
   ___ Other (Specify) ______________________________
The primary reason for continued interactions with TSM-RRC staff was the need for clarity and precision within the instrument. The first draft was developed as a general instrument. As progress was completed towards the final draft, it was necessary to assure that the content (e.g., language) contained in the instrument communicated the intent of the instrument. The format of the instrument also had to be continuously reviewed for simplicity to allow for ease of response by participants.

Suggestions of the TSM-RRC staff regarding the second draft indicated that Part I, Respondent Information could be reorganized to save space. Also, there should be instructions to guide the completion of that section. Part II, Inservice Need Category instructions should be shortened and pointed. The two responses asked of each respondent should be reorganized; i.e., respondents may be confused as to the exact responses they were asked to make. Lastly, some staff recommended that space to indicate other needs and to comment might be better situated at the end of the instrument. In this way the respondent actions of circling and checking would not be interrupted by writing.

A follow-up phone call was placed to the IDSES to receive the agency's suggestions for revising the instrument. In reference to Part I, Respondent Information the following recommendations were indicated:

1. Under student's classification change Non-Categorical to Cross Categorical and Behaviorally Handicapped to Behavior Disordered and add
Educationally Handicapped. These changes were necessary to reflect terminology used in the state.

2. Under Related Services Personnel change Speech Therapist to Speech/Language Clinician; add Teaching Aide, Adaptive Physical Education and Vocational/Industrial/Technical; and delete Psychometrist, Reading Teacher and Paraprofessional. These changes were necessary to reflect the actual positions in the state.

3. Add a category for supervisors, change Parent to Parent/Guardian and delete Surrogate Parent, Hearing Officer and Physical Education Teacher.

The IDSES did not suggest changes or modifications for Part II, Inservice Need Category, however, the agency did recommend that Part III, Inservice Delivery be deleted. It was felt that this area should be left to the individual strategies of the school district.

Before continuing with a description of the development of further revisions, the implementation process will be discussed in reference to the draft instrument.

Needs Assessment Implementation Process--Draft One

As previously reported, the IDSES requested a needs assessment process model. Both a needs assessment instrument and an implementation process were to be included in the model. Figure 11, represents the first draft of instructions to be followed for implementation
Please read the following instructions to assist you in the implementation of the needs assessment. It is important that all steps are read prior to implementation.

Step 1 Establish a needs assessment team comprised of personnel in your district. This team may include administrators, teachers, parents, related services personnel, etc.

Step 2 Once established, the team should decide on the following:

2.1 Number of individuals from each job category (including parents) needed to respond.
2.2 Timelines for conducting the assessment
2.3 Level of involvement (See Step 3)
2.4 Dissemination/Data Collection Strategy (Step 4)

Step 3 Level of Involvement

3.1 Instrument #1 - This instrument contains main topics with specific subset needs. Respondents are required to rate each main heading and to check specific subset need items that are an immediate priority for training. Space is provided for needs not assessed by the instrument and for comments.

3.2 If the team chooses to develop district specific subset needs, an instrument of your own design may be used.

3.3 If your district develops its own design, please read the following guidelines:

Essential Components:
A. School District/Cooperative name
B. Job information section (Instrument #1)
C. Rating of seven (7) main topics (Instrument #1)
D. District specific subset needs for each topic developed by needs assessment team.
E. Space for commenting and indicating needs not included on instrument.

Optional Components:
A. Additional main topics and subset needs that are appropriate for your district.
B. Instrument design other than that in instrument #1.

3.4 Only data from the initial seven (7) main topics will be reported to the state department.

Figure 11. Needs Assessment Instructions - Draft One,
Step 4 Dissemination/Data Collection Strategy

4.1 Dissemination/Data Collection can be planned in a number of ways. Some examples are listed below:

4.1.1 Group meeting of all respondents. The instrument is handed out to each respondent and is completed during the meeting.

4.1.2 Separate group meetings with respondents from each job category. The instrument is handed out to each respondent and completed during the meeting.

4.1.3 Mailing of instrument to all respondents with date for completion and forwarding.

4.1.4 Designate building representatives to conduct needs assessment in their schools.
The needs assessment facilitator refers to the person in the school district who is designated as the supervisor of the needs assessment process. Steps 1 through 4 are general in nature and list decisions that the needs assessment team must make. The decisions refer to the number of respondents, timelines, level of involvement; i.e., implement the developed instrument or develop an instrument that is specific to the school district, and strategies for disseminating and data collection. The latter level of involvement represents a combination of two levels that were previously mentioned. As indicated in Step 3, if a district decides to develop an instrument that is specific to its situation, certain elements from the developed instrument should be included. Step 3.4 refers to the reporting of data to the state department (IDSES). This activity was built into the process to assist the IDSES in determining statewide needs, regional needs or particular school district needs. The reporting form is illustrated in Figure 12.

Detailed procedures for disseminating and collecting the instrument were minimal in these instructions and procedures for summarizing data were not included at all. These deficiencies were identified by IDSES when the agency reviewed these instructions with draft #2 of the instrument.

Needs Assessment Instrument - Draft Three

The third revision of the needs assessment instrument is illustrated in Figure 13. The first page of Figure 13 relates to the changes in the previously named Respondent Information section.
**School District Name____________________________________________**

**Joint Agreement/Cooperative Name________________________________**

I. Please indicate the level of need in your district regarding the main topics by circling the appropriate number.

<table>
<thead>
<tr>
<th>Topic</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Child Find/Referral</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Classroom Management</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Instructional Strategies</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Communication Within School Setting</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Communication Outside School Setting</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Regulations/P.L. 94-142/Chapter 122 III. Revised Statute, Article 14</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Special Services Administration (Administrators, Supervisors Only)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

II. Please check the instrumentation used:

Instrument 1 -

Other -

III. What strategy or strategies were used to disseminate the instrument and to collect data?

*Figure 12. State Reporting Form.*
NEEDS ASSESSMENT INSTRUMENT

School District Name ________________________________ Joint Agreement/Cooperative Name

Instructions: Place an X in the appropriate space(s) below to indicate your position in the school program.

A. Instructional Staff:

___ Regular Classroom Teacher Level: ___ Pre School ___ Elem. ___ Sec.

___ Special Education Teacher Level: ___ Pre School ___ Elem. ___ Sec.

If Special Education, indicate students' classification.

___ Cross Categorical

___ Educable Mentally Retarded

___ Trainable Mentally Retarded

___ Visually Impaired

___ Behaviorally Disordered

___ Hearing Impaired

___ Deaf/Blind

___ Orthopedically/Health Impaired

___ Learning Disabled

___ Educationally Handicapped

___ Multiple Handicapped

___ Other (Specify) ______________________

B. Related Services Personnel:

___ School Psychologist

___ Speech/Language Clinician

___ Physical Therapist

___ Audiologist

___ Occupational Therapist

___ Medical Personnel

___ Teaching Aide

___ Adaptive Physical Education

___ Vocational/Industrial/Technical

___ Other (Specify) ______________________

C. ___ Parent/Guardian

D. ___ Administrator

___ Regular

___ Special

E. ___ Supervisor

Use of Data - Plan inservice training activities; report need areas to Illinois Department of Specialized Educational Services.

Instructions: Circle the number at the right of each main topic to indicate your need in that area.

<table>
<thead>
<tr>
<th>Low Need</th>
<th>High Need</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Child Find/Referral..................................................</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>2. Classroom Management...................................................</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>3. Instructional Strategies.................................................</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>4. Communication Within School Setting.....................................</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>5. Communication Outside School Setting....................................</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>6. Regulations/P.L. 94-142/Chapter 122 Ill. Revised Statute, Article 14...</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>7. Special Services Administration (Administrators, Supervisors Only)....</td>
<td>1 2 3 4 5</td>
</tr>
</tbody>
</table>

Figure 13. Needs Assessment Instrument - Draft Three.
**Child Find/Referral**

1. Assess student abilities
2. Participate as a member of diagnostic teams
3. Understand the referral process
4. Understand/utilize non-biased, multi-factored assessment
5. District/parent responsibilities in the referral process

**Classroom Management**

6. Manage students' behavior in the classroom
7. Establish or maintain record keeping system
8. Apply behavior management techniques
9. Alter classroom environment for student differences
10. Schedule students' course work

**Instructional Strategies**

11. Develop instructional objectives
12. Match instructional materials to instructional objectives
13. Individualize instruction
14. Instructional strategies in subject areas. Specify

**Communication Within School Setting**

15. Communicate with other staff: Teacher, Administrator, Supervisor, Related Services Personnel
16. Develop positive attitudes in handicapped students toward themselves
17. Develop positive attitudes in normal children toward the handicapped
18. Develop positive attitudes in building staff toward the handicapped

**Communication Outside School Setting**

19. Communicate effectively with parents
20. Improve attitudes of adults toward the handicapped child
21. Work effectively with bilingual/bicultural families
22. Establish and effectively use parent advisory groups
23. Implement parent training sessions
24. Communicate with student community services

**Regulations/P.L. 94-142/Chapter 122 Ill. Rev. Statute, Article 14**

25. Understand/implement due process procedures
26. Understand/implement least restrictive environment requirements
27. Understand/implement Individualized Education Program requirements
28. Understand/implement confidentiality of information guidelines
29. Understand/implement protection in evaluation procedures
Figure 13 (continued)

DRAFT

Special Services Administration (Administrators, Supervisors Only)

0. Supervise personnel.................................................................
31. Evaluate special education programs....................................
32. Understand funding of special education programs..............
33. Plan services for handicapped children..............................

34. Indicate in the space below training you would like to receive that is not included on this form.

35. Comments: Use the space below to indicate any additional information regarding your responses.
Instructions for completing this section were inserted to replace the heading Respondent Information. The changes in terminology, as indicated by the IDSES, were incorporated into the draft as well as a changed in format.

The section previously named Inservice Need Category was changed. Participant responses were divided into two separate sections and provided with instructions. The first set of instructions (Figure 13, Page 1) address the seven main topics and require the respondent to circle the number that indicates personal need for each topic. The second set of instructions (Figure 13, Page 2) require the respondent to check subtopics that are an immediate priority for training. The modifications were implemented to limit the amount of reading for respondents and to separate the two responses; it was anticipated that these modifications would reduce the possibility of inaccuracies by respondents when completing the instrument. Inappropriate responses (e.g., not circling major topics to indicate need, placing a number in the blank space rather than just a check) would present problems in tabulating data.

The major topics were reordered so that teacher centered needs (e.g., Child Find/Referral) began the questionnaire and administrative needs (Regulations/P.L. 94-142/Chapter 122 Ill. Rev. Statute, Article 14) ended it. The reason for this change was that teachers would represent the largest group of respondents and, therefore, it was appropriate to begin the questionnaire with their needs. Administrators, Supervisors Only were added to Special Services Administration
to indicate that only these personnel should respond to the main topic and subtopics. Also, Communication--School and Family was changed to Communication Outside School Setting because the subtopics dealt with areas other than the school and family.

The number of subtopics were reduced to keep the instrument brief. Subtopics were numbered to indicate a continuous pattern (1-33); this reflected a change from the previous numbering system for each main topic. The beginning word of each subtopic was modified, where necessary, to the present tense of the verb. For example, in Draft #2 under Special Services Administration the first subtopic began with the word supervision; this was changed in Draft #3 to supervise. The length of each subtopic was also reviewed to determine if it could be shortened without sacrificing clarity.

Lastly, the provisions to specify subtopics not contained on the instrument and to write comments were removed from under each main topic and placed at the end of the questionnaire. Respondents could still respond to the two items, however, placed at the end of the questionnaire would not interrupt the response pattern.

Part III, Inservice Delivery was deleted at the request of the IDSES.

The revised Draft #3 was forwarded under a cover letter dated February 18, 1982 (See Appendix B) to the IDSES for review.
The second draft of the needs assessment instructions focused on instrument dissemination and collection and data summarization. The main obstacle, again, was the solution requirement that the model be applicable throughout the state.

In developing procedures for instrument dissemination and collection the role of the needs assessment team was highlighted. If the needs assessment team could be involved in the disseminating and collection of data, then this process could be generalized to any school district. The strategy developed was to assign each member (facilitator) of the needs assessment team to a job category or categories as indicated on the first page of the instrument. It would be the facilitator's responsibility to meet individually or in a group to disseminate the instrument and, in the same meeting, collect it. Personal administration such as this is in agreement with the recommendations of Davis (1980). The number of respondents assigned to each facilitator is dependent on the size of the sample. In a hypothetical example, the coordinator of psychological services in a school district was assigned related services personnel. The needs assessment team determined that 7 school psychologists, 2 speech clinicians, 1 physical therapist, 2 teaching aides and 1 adaptive physical education teacher would comprise the respondents in this category. The facilitator could meet with all 13 respondents together or individually to disseminate the instrument, request the respondents to complete it and then collect the instruments. The
sample size and number of facilitators assigned to a particular job category would vary according to the size of the staff in-school districts.

Initially, summarizing the data presented a problem. A research consultant had previously advised against the use of machine scoring (See Appendix D) because there would be no incentives for respondents to carefully follow instructions. This would lead to a possible elimination of numerous instruments at the data summarization stage because of inaccuracies made by respondents. In addition, small school districts and districts in rural areas might not possess machine scoring capabilities. Hence, the primary goal for summarizing data was to develop a methodology that every district could implement.

Summarization activities would involve the averaging of the ratings for each main topic (e.g., Child Find/Referral) and totaling the number of checks for each subtopic. Summarizing could be completed for each individual job category (e.g., Related Services Personnel) or, if necessary, for specific positions listed under a job category (e.g., school psychologist). To average the ratings of each main topic, the total number of points would be divided by the number of respondents. In the previous example, a total rating of 53 would be divided by 13 (respondents) for an average of 4.

The averaging of main topics and totaling of checks for subtopics could also be implemented to depict entire district results.

**Needs Assessment Instrument - Field Test**

While the IDSES was reviewing the needs assessment instrument (Draft #3) and the implementation process, a field test of the
instrument was conducted. The 25 participants in the field test were from the central Ohio area. This did not present a problem because the objective of the field test was to determine a general evaluation of the instrument regarding organization, completeness, clarity and usefulness of the instrument. The results of the field test would be reviewed to determine if any further revision was necessary.

A list of names was submitted by TSM-RRC staff to the researcher as possible participants in the field test. The possible participants included teachers, related services personnel, administrators (both regular and special) and parents. Each person was contacted by phone to inquire about possible participation. If the person agreed, a cover letter detailing the nature of participation in the field test, a need assessment instrument (Draft #3), an evaluation form and a self-addressed stamped envelope for returning the materials were forwarded to each participant (See Appendix E). The final group of 25 participants consisted of six special education administrators, two regular education administrators (principals), four special education teachers, four regular education teachers, three parents, three speech clinicians, two school psychologists and one university professor.

Basically, each participant was asked to complete the instrument from the perspective of their position in the school district. After responding to the instrument, each participant was asked to complete an evaluation of the instrument. Each participant was assured that their
responses on the actual instrument would not be used for any purpose. Figure 14 depicts the average time needed to complete the instrument and the average rating of six areas. Averages were determined by adding total time and total rating for each topic and dividing each by the total number of participants. The results from this section of the

<table>
<thead>
<tr>
<th>I. Average Time to Complete Instrument</th>
<th>35 minutes</th>
</tr>
</thead>
<tbody>
<tr>
<td>II. Topic</td>
<td>Rating (1=Low, 3=High)</td>
</tr>
<tr>
<td>A. Organization of Instrument</td>
<td>2.8</td>
</tr>
<tr>
<td>B. Usefulness of Instrument</td>
<td>2.6</td>
</tr>
<tr>
<td>C. Clarity of Instruction</td>
<td>2.7</td>
</tr>
<tr>
<td>D. Completeness of Personal Data</td>
<td>2.5</td>
</tr>
<tr>
<td>E. Completeness of Seven Main Topics</td>
<td>2.7</td>
</tr>
<tr>
<td>F. Completeness of Subtopics</td>
<td>2.7</td>
</tr>
</tbody>
</table>

Figure 14. Field Test Results

evaluation form were generally positive. Thirty-five minutes appeared to be a reasonable time to complete the instrument. Although the time to complete the instrument ranged from less than five minutes to ninety minutes the majority of participants finished between 20 and 40 minutes. In section II the two lowest scores were reported for Usefulness of Instrument and Completeness of Personal Data. Regular staff personal (e.g., teachers and principals) rated lowest in the
Usefulness of Instrument topic. Follow-up telephone calls to these participants revealed that educating handicapped children was not a high priority for them. Thus, it appears that this attitude may have contributed to low ratings for this topic. The low rating for Completeness of Personal Data was justified; i.e., there needs to be more information regarding respondents than just the school district name.

The last part of the evaluation form (See Appendix E) listed seven questions that would allow participants to respond in detail about the instrument. The summary of each question is presented below:

1. What do you perceive as the purpose of the instrument?
   Each of the participants responded appropriately to this question. The responses were all directed toward the identification of inservice training needs to improve service delivery to handicapped students.

2. How relevant are the seven main topics to your job category?
   All participants were positive in their comments regarding the seven main topics. A regular education teacher commented that Communication Outside School Setting and Regulations/ were not generally relevant. "Highly relevant" and "very relevant" characterized the type of comments.
It is promising to note that parents felt that these topics were relevant to them.

3. How relevant are the subtopics to your job category?

Again, the majority of participants in the field test responded favorably to this question. The comments indicated that the subtopics were comprehensive and pointed out critical areas in providing services to handicapped children (e.g., managing students behavior in the classroom). Some administrators commented that certain subtopics were not specifically relevant to them, however, these subtopics were important items for inservice training for staff.

4. How might public school employees in your district react to the language, length and scoring of the instrument?

The language used in the instrument was evaluated as clear and succinct. One participant stated that the language was surprisingly clear. A few comments indicated that the language for Regulations/P.L. 94-142 might be too technical.

There was total agreement that the length of the instrument was satisfactory. One principal stated that he would expect a positive reaction by staff while a regular education teacher indicated that
staff would appreciate the brevity of the instrument. Each participant indicated that the scoring of the instrument was simple and easy. In summary, the language, length and scoring of the instrument was viewed as highly favorable; there was a problem with the technical language used for certain subtopics.

5. What area (e.g., design, scoring, instructions, etc.) need improvement? Why? How would you improve those areas?

Some of the areas cited for improvement may be handled by the needs assessment team; others would have to be incorporated on the instrument itself. For example, one participant felt that it would be important to know who will implement the needs assessment; two others indicated a statement should be included stating if participants should respond based on their own needs or on general importance. These concerns could be addressed when facilitators disseminate the instrument. Other improvements indicated would be to increase the spacing between main topics and to state how many items could be checked. These concerns would have to be dealt with by revising the instrument. At least half the participants
commented that they felt that there was no reason for improvements.

6. Would this instrument be useful in determining inservice needs in your district?

The response to this question was overwhelmingly positive. Every participant stated that this instrument would be useful in their districts. The responses are best summarized by a Director of Pupil Personnel Services who asked if he could use the instrument and a Principal who stated that a valuable instrument had been developed. These findings, in part, contradict the results earlier reported regarding the Usefulness of Instrument topic. This question refers the participant to the school district and, thus, may account for part of the contradiction.

The results of the field test contributed significantly to the development of the needs assessment instrument. First, it provided positive feedback regarding the overall development of the instrument. Second, it pointed out specific areas of improvement. These critical areas of improvement relate to the personal data section, spacing of main topics and in administering the needs assessment instrument.
Need Assessment Instrument and Implementation Process - Final Draft

The final drafts of both the needs assessment instrument and implementation process were based on feedback regarding the previous drafts from the IDSES and from field test results. The final draft of the instrument is illustrated in Figure 15.

The section previously referred to as Personal Data was charged to Identification Data and expanded to include Joint Agreement/Cooperative Name, Name of School and County Name. The list of student's classification and related personnel job positions were reorganized to facilitate responding by respondents. In order to simplify the instructions the Use of Data explanation was removed. On the second page of the draft space was increased between the main topics. This modification was made in direct response to field test results.

At this stage, more detailed instructions for implementation were developed. Figure 16 illustrates a summary of those instructions, however, a detailed draft of those instructions are in Appendix F. There was little change for Step 1. Step 2 of the previous draft was separated into several distinct steps with specific information added to some steps. Step 2 of the new draft relates only to level of involvement. For example, the responsibilities of the needs assessment team remain essentially the same as in the previous draft. That is, the developed instrument may be implemented or the district may develop subset needs (subtopics) that are more relevant to the conditions within the district.
# Figure 15. Needs Assessment Instrument - Final Draft

## Identification Data
- Joint Agreement/Cooperative Name
- School District Name
- Name of School
- County Name

*Instructions: Place an 'X' in the appropriate space(s) below to indicate your position in the school program.*

<table>
<thead>
<tr>
<th>A. Regular Classroom Teacher</th>
<th>Level: Preschool</th>
<th>Level: Elem.</th>
<th>Level: Sec.</th>
</tr>
</thead>
<tbody>
<tr>
<td>B. Special Education Teacher</td>
<td>Level: Preschool</td>
<td>Level: Elem.</td>
<td>Level: Sec.</td>
</tr>
</tbody>
</table>

If Special Education, indicate students' classification:
- [ ] Cross Categorical
- [ ] Educable Mentally Retarded
- [ ] Trainable Mentally Retarded
- [ ] Visually Impaired
- [ ] Behavior Disordered
- [ ] Hearing Impaired
- [ ] Deaf-Blind
- [ ] Severe/Profound Retarded
- [ ] Orthopedically/Health Impaired
- [ ] Learning Disabled
- [ ] Educationally Handicapped
- [ ] Multiple Handicapped
- [ ] Other (Specify)

## Related Services Personnel

<table>
<thead>
<tr>
<th>C. Related Services Personnel</th>
</tr>
</thead>
<tbody>
<tr>
<td>School Psychologist</td>
</tr>
<tr>
<td>Speech/Language Clinician</td>
</tr>
<tr>
<td>Physical Therapist</td>
</tr>
<tr>
<td>Audiologist</td>
</tr>
<tr>
<td>Occupational Therapist</td>
</tr>
<tr>
<td>Medical Personnel</td>
</tr>
<tr>
<td>Teaching Aide</td>
</tr>
<tr>
<td>Adaptive Physical Education</td>
</tr>
<tr>
<td>Vocational/Industrial/Technical</td>
</tr>
<tr>
<td>Other (Specify)</td>
</tr>
</tbody>
</table>

## Parent/Guardian

<table>
<thead>
<tr>
<th>D. Parent/Guardian</th>
</tr>
</thead>
</table>

## Administrator

<table>
<thead>
<tr>
<th>E. Administrator - Special</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administrator - Regular</td>
</tr>
</tbody>
</table>

## Supervisor

*Instructions: Circle the number at the right of each main topic to indicate your need in that area.*

<table>
<thead>
<tr>
<th></th>
<th>Low Need</th>
<th>High Need</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Child Find/Referral</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>2. Classroom Management</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3. Instructional Strategies</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>4. Communication Within School Setting</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>5. Communication Outside School Setting</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>6. Regulations/PL 94-142/Chapter 122 III. Revised Statute, Article 14</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>7. Special Services Administration (Administrators, Supervisors Only)</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>
Instructions: In the space at the end of each line, check the items that are an immediate priority for training for you.

Child Find/Referral

1. Assess student abilities.................................................................
2. Participate as a member of diagnostic teams..............................
3. Understand the referral process......................................................
4. Understand/utilize non-biased, multi-faceted assessment..............
5. District/parent responsibilities in the referral process................

Classroom Management

6. Manage students' behavior in the classroom................................
7. Establish or maintain record keeping system...............................
8. Apply behavior management techniques....................................
9. Alter classroom environment for student differences.................
10. Schedule students' course work...................................................

Instructional Strategies

11. Develop instructional objectives..................................................
12. Match instructional materials to instructional objectives..............
13. Individualize instruction..............................................................
14. Instructional strategies in subject areas. Specify........................

Communication Within School Setting

15. Communicate with other staff: Teacher........................................
16. Communicate with other staff: Administrator.............................
17. Communicate with other staff: Supervisor...................................
18. Communicate with other staff: Related Services Personnel...........
19. Develop positive attitudes in handicapped students toward themselves.
20. Develop positive attitudes in normal children toward the handicapped.
21. Develop positive attitudes in building staff toward the handicapped.

Communication Outside School Setting

19. Communicate effectively with parents.........................................
20. Improve attitudes of adults toward the handicapped child..........
21. Work effectively with bilingual/bicultural families....................
22. Establish and effectively use parent advisory groups.................
23. Implement parent training sessions.............................................
24. Communicate with student community services........................

Regulations/PL 94-142/Chapter 122 Ill. Revised Statute, Article 14

25. Understand/implement due process procedures..........................
27. Understand/implement Individualized Education Program requirements.
29. Understand/implement protection in evaluation procedures........

Special Services Administration (Administrators, Supervisors Only)

30. Supervise personnel.................................................................
31. Evaluate special education programs........................................
32. Understand funding of special education programs...................
33. Plan services for handicapped children.....................................
34. Indicate in the space below training you would like to receive that is not included on this form.

35. Comments: Use the space below to indicate any additional information regarding your responses.
Step 1: Establish a needs assessment facilitating team comprised of personnel in your district (e.g., teachers, administrators, parents, etc.). The team's responsibility is to coordinate dissemination, data collection and summarization, and reporting activities.

Step 2: The facilitating team decides on the level of involvement, i.e., implementing the developed instrument with predetermined subset needs or developing district specific subset needs.

Step 3: The facilitating team decides on the sample size of respondents for each job category to be surveyed. It is suggested that summarization responsibilities for each facilitator be limited to twenty (20) respondents.

Step 4: Timelines for completion of the process should be determined. The facilitating team should be aware that, according to field test results, the average time to complete the instrument was thirty-five (35) minutes and that summarization of data for thirteen (13) respondents required twenty (20) minutes.

Step 5: Dissemination and data collection activities are implemented and completed by facilitators.

5.1 Each facilitator meets with the job category to be surveyed. The purpose of the needs assessment is discussed and respondents complete the instrument.

5.2 Upon completion, each instrument is collected by the facilitator.

The following steps should be followed by the facilitator for summarization purposes.

6.1 On the job category summary sheet, total the number of respondents from categories A, B, C, D, E, and/or F. Use the spaces under OFFICE USE ONLY. Add each category and place the number in the blank spaces marked TOTAL.

6.2 To summarize information for the seven main topics, total all the ratings for each main topic and place each number in the corresponding blank spaces. Next, divide each total by the number of respondents (6.1). Place that figure in the blank space under AVERAGE.

6.3 To summarize subtopic information, i.e., items 8-33 inclusive, total the number of respondents who checked each subtopic and place that number in the corresponding space.

6.4 To summarize the data for items 34 and 35, place the number of individuals who responded to each item in the corresponding blank spaces.

Step 7: A facilitating team meeting should be scheduled to discuss each facilitator's summarization results. The purpose of the meeting is to make decisions regarding training priorities.

Figure 16. Summary of Needs Assessment Instructions.
Step 3, also a part of the previous Step 2, relates to sample size. Certainly sample size will vary from district to district. Based on field test data, however, it is suggested that each facilitator handle no more than twenty respondents. In districts that require more than twenty respondents in a given job category, an additional facilitator should be assigned responsibility for that job category. Another component of the previous Step 2 is Step 4 of the new draft. This step relates to timelines and, although there are no suggested timelines, it is important for the needs assessment team to realize that the average time to complete the instrument during the field test was 35 minutes. Also, it took this researcher 20 minutes to summarize data for 13 respondents. The number 13 was chosen because it was used as an example in the detailed instructions. Summarization activities are explained in Step 6.

Step 5 refers to dissemination and data collection and remains essentially the same as the previous step.

Step 6 represents a significant change from the previous draft. Referring to Figure 15 of the final draft of the instrument, an OFFICE USE ONLY section was added. This space was developed to provide for summarization of data. The first part is used to total the number of respondents. The second part allows for the summarization of ratings for the seven main topics and the third part provides spaces for the totaling of checks for subtopics. There are several advantages to this method of summarization. First, it may be used for one job category (e.g., Related Services Personnel), a specific
position under a job category (e.g., School Psychologist), for an entire building and for the entire school district. Actually, the needs assessment team can decide to summarize data in almost any manner they choose. Second, summarization activities are simple to understand and implement. Third, the summarization takes place on a copy of the actual instrument and fourth, with some modifications to the instrument, the data could be placed on a computer if so desired.

Step 7 indicates that the needs assessment team should meet to discuss results and begin to make decisions regarding inservice training priorities.

The final drafts were mailed to the IDSES under a cover letter dated May 4, 1982 (See Appendix B).

**Needs Assessment Summary Sheet**

At this point in the development of the needs assessment process model, the task that faced this researcher was to carefully review the developed materials to assure that language was consistent and other details (e.g., title for the instrument) were in order. During this process it was noted by the Principal Investigator of the TSM-RRC that a summary sheet illustrating, needs assessment results would enhance the process model. As a result, a summary sheet was developed and is shown in Figure 17. The summary sheet refers to the 33 sub-topics. This sheet can be used to depict results for a job category, positions under job categories, a school building and for an entire district. Basically, the number of checks for each subtopic is divided by the total number of respondents. This will produce a
NEEDS ASSESSMENT SUMMARY SHEET

Joint Agreement/Cooperative Name ____________________________
School District Name ____________________________

RECORDING INSTRUCTIONS — Use the charts below to summarize needs assessments results. To determine the percent of response for each subtopic, divide the total number of checks for each subtopic by the total number of respondents. Next, graph each subtopic percent on the appropriate chart. The charts can be used to depict district results or specific job category results.

Child Find/Referral

<table>
<thead>
<tr>
<th>Percent of Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
</tr>
<tr>
<td>90</td>
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<tr>
<td>80</td>
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<td>70</td>
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<tr>
<td>20</td>
</tr>
<tr>
<td>10</td>
</tr>
<tr>
<td>0</td>
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</tbody>
</table>

Subtopics 1 2 3 4 5

Classroom Management

<table>
<thead>
<tr>
<th>Percent of Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
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<tr>
<td>90</td>
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<td>80</td>
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<td>20</td>
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<tr>
<td>10</td>
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<td>0</td>
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</tbody>
</table>

Subtopics 6 7 8 9 10

Instructional Strategies

<table>
<thead>
<tr>
<th>Percent of Response</th>
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</thead>
<tbody>
<tr>
<td>100</td>
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<tr>
<td>90</td>
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<tr>
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<td>20</td>
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<td>0</td>
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</tbody>
</table>

Subtopics 11 12 13 14

Communication Within School Setting

<table>
<thead>
<tr>
<th>Percent of Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
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<td>90</td>
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<td>10</td>
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<td>0</td>
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</tbody>
</table>

Subtopics 15 15.1 15.2 15.3 16 17 18

Figure 17. Needs Assessment Summary Sheet,
Figure 17 (continued)
percentage that can be graphed on the summary sheet. The needs assessment team can, thus, easily pinpoint subtopics that were identified as immediate priorities for training.

Final Preparations for Printing of the Needs Assessment Process Model

On July 13, 1982 the ready for print instrument and implementation procedures were mailed to the IDSEs under a cover letter (See Appendix B). The instrument illustrated in Figure 18 was taken to the printing facilities at The Ohio State University and represents a brown print; i.e., the final proof before actual printing takes place. Additional details were provided on the needs assessment instrument for this brown print. On page one, a notification to the team leader that a set of instructions could be found on page 4, a space to indicate the school year, a title and a statement of the cooperative efforts of the two agencies were added. The other addition was Step 7 to the needs assessment instructions which were found on page four. Step 7 was also added to the detailed set of instructions.

Also included in the mailing was a draft of a booklet that was later entitled Needs Assessment Instruction for Inservice Training (See Appendix F). This booklet essentially included a brief state of the art summary regarding needs assessment, need assessment process instructions and an organizational chart.

On July 27, 1982 under a cover letter (See Appendix B), the needs assessment summary sheet with the added instructions were forwarded to the IDSEs. The IDSEs were contacted in early August to receive permission to print the process model.
Needs Assessment Team Leader: A set of instructions is listed on page 4 of this instrument.

School Year 19

NEEDS ASSESSMENT FOR INSERVICE TRAINING

Joint Agreement/Cooperative Name ________________________________

School District Name ________________________________

Name of School ________________________________

County Name ________________________________

Place an X in the appropriate space(s) to indicate your position in the school program:

A. ______ Regular Classroom Teacher Level: ______ Preschool ______ Elem. ______ Sec.
B. ______ Special Education Teacher Level: ______ Preschool ______ Elem. ______ Sec.

If Special Education, indicate students' classification.

- Cross Categorical
- Educable Mentally Retarded
- Trainable Mentally Retarded
- Visually Impaired
- Behavior Disordered
- Hearing Impaired
- Deaf-Blind
- Severe/Profound Mentally Retarded
- Orthopedically/Health Impaired
- Learning Disabled
- Educationally Handicapped
- Multihandicapped
- Other (Specify) ____________________________________________

C. Related Services Personnel

- School Psychologist
- Speech/Language Clinician
- Physical Therapist
- Audiologist
- Occupational Therapist
- School Nurse
- Teaching Aide
- Adaptive Physical Education
- Vocational/Industrial/Technical
- Social Worker
- Guidance Counselor
- Other (Specify) ____________________________________________

D. ______ Parent/Guardian

E. ______ Administrator - Special
- Administrator - Regular

F. ______ Supervisor - Special
- Supervisor - Regular

OFFICE USE ONLY

TOTAL ____________________________________________

Figure 18. Brown Print of Needs Assessment Instrument,
### I. Child Find/Referral

|-----------------------------|---------------------------------------------|---------------------------------|----------------------------------------------------------|----------------------------------------------------------|

### II. Classroom Management

|-----------------------------------------------|-----------------------------------------------|-----------------------------------------------|----------------------------------------------------------|----------------------------------|

### III. Instructional Strategies

|-------------------------------------|---------------------------------------------------------------|-------------------------------|----------------------------------------------------------|

### IV. Communication Within School Setting

<table>
<thead>
<tr>
<th>15. Communicate with other staff: Teacher</th>
<th>15.1 Administrator</th>
<th>15.2 Supervisor</th>
<th>15.3 Related Service Personnel</th>
</tr>
</thead>
<tbody>
<tr>
<td>16. Develop positive attitudes in handicapped students toward themselves</td>
<td>17. Develop positive attitudes in normal children toward the handicapped</td>
<td>18. Develop positive attitudes in building staff toward the handicapped</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Low Need</th>
<th>Medium Need</th>
<th>High Need</th>
<th>Total Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

| Classification/PL 94-142/Chapter 122 Ill. Revised Statute, Article 14 |
|-----------------------------------------------|-----------------------------------------------|-------------------------------|----------------------------------------------------------|----------------------------------|
| I. Child Find/Referral | II. Classroom Management | III. Instructional Strategies | IV. Communication Within School Setting | Office Use Only |

| | | | | |
| | | | | |
V. Communication Outside School Setting

19. Communicate effectively with parents ..............................................................
20. Improve attitudes of adults toward the handicapped child ..............................
21. Work effectively with bilingual/bicultural families ........................................
22. Establish and effectively use parent advisory groups ......................................
23. Implement parent training sessions .................................................................
24. Communicate with student community services .............................................

VI. Regulations/PL 94-142/Chapter 122 III. Revised Statute, Article 14

25. Understand/implement due process procedures .............................................
26. Understand/implement least restrictive environment requirements ..............
27. Understand/implement Individualized Education Program requirements .........
28. Understand/implement confidentiality of information guidelines ..................
29. Understand/implement protection in evaluation procedures ...........................

VII. Special Services Administration (Administrators, Supervisors Only)

30. Supervise personnel .......................................................................................
31. Evaluate special education programs ............................................................
32. Understand funding of special education programs ....................................... 
33. Plan services for handicapped children ....................................................... 
34. Indicate in the space below training you would like to receive 
    that is not included on this form .................................................................

35. Comments: Use the space below to indicate any 
    additional information regarding your responses ........................................
INSTRUCTIONS FOR NEEDS ASSESSMENT TEAM LEADER

Step 1: Establish a needs assessment facilitating team comprised of personnel in your district (e.g., teachers, administrators, parents, etc.). The team's responsibility is coordination, dissemination, data collection and summarization, and reporting activities.

Step 2: The facilitating team decides whether to implement the developed instrument or to use the developed instrument as a model to construct an instrument that is district specific. If the latter is chosen, please refer to the detailed set of instructions.

Step 3: The facilitating team decides on the sample size of respondents for each job category to be surveyed. It is suggested that summarization responsibilities for each facilitator be limited to twenty (20) respondents.

Step 4: Timelines for completion of the process should be determined. The facilitating team should be aware that, according to field test results, the average time to complete the instrument was thirty-five (35) minutes and that summarization of data for thirteen (13) respondents required twenty (20) minutes.

Step 5: Dissemination and data collection activities are implemented and completed by facilitators.

5.1 Each facilitator meets with respondents from the job category to be surveyed. The purpose of the needs assessment is discussed and respondents complete the instrument.

5.2 Upon completion, each instrument is collected by the facilitator.

Step 6: The following steps should be followed by the facilitator for summarization purposes.

6.1 On the job category summary sheet, total the number of respondents from categories A, B, C, D, E, and/or F. Use the spaces under OFFICE USE ONLY. Add each category and place the number in the blank space marked TOTAL.

6.2 To summarize information for the seven main topics, total all the ratings for each main topic and place each number in the corresponding blank spaces. Next, divide each total by the number of respondents (6.1). Place that figure in the blank space under AVERAGE.

6.3 To summarize subtopic information, i.e., items 1-33 inclusive, total the number of respondents who checked each subtopic and place that number in the corresponding space.

6.4 To tabulate the data for items 34 and 35, place the number of individuals who responded to each item in the corresponding blank spaces.

Step 7: The needs assessment results should be graphed on the charts on the NEEDS ASSESSMENT SUMMARY SHEET.

Step 8: A facilitating team meeting should be scheduled to discuss each facilitator's summarization results. The purpose of the meeting is to make decisions regarding training priorities.
Step V - Determine Performance Effectiveness

Since the needs assessment process model was developed for the IDSES that agency was ultimately responsible for determining performance effectiveness. On August 6, 1982 the TSM-RRC received a letter from the Director of the IDSES indicating that the model met with the approval of the agency (See Appendix B). With this approval this researcher contacted the printing facility at The Ohio State University and requested the printing of 600 copies of the needs assessment process model.

The approval of the IDSES to print the needs assessment process model implied that the solution requirements were met. The objective of developing a model that could be applicable throughout the state was achieved. Specifically, the instrument was of appropriate content, flexible and brief. The implementation process was perceived as adaptable, flexible and inexpensive. Further, it involved key staff in the district and incorporated personal administration, which was suggested in the literature.

Upon receipt of the printed needs assessment process model, the Director of the IDSES forwarded a letter, dated October 27, 1982, to the TSM-RRC indicating the value of the model to school systems in the state (See Appendix B). The completed needs assessment process model is illustrated in Appendix G.
Step VI - Revise

The revision component of the systems approach to problem solving was frequently accessed and assisted in the resolution of the problem. This step was extremely valuable in the development of the needs assessment process model because it kept this researcher in regular communication with the IDSES. Although four drafts and a final instrument are detailed in this text, 13 revisions of the instrument were completed. These revisions were necessary as solution requirements were adhered to in the development of the model.

Generally, as approximations (drafts) toward the development of the model were reached, the revision step was implemented. This step involved the forwarding of drafts to the IDSES and then receiving the agency's feedback. The feedback provided specific data to modify, add to, or delete from the existing draft. As mentioned in the beginning of this chapter, data is an essential requirement for model development. This requirement was met because, in the process of revision, additional data was received regarding the reference system.

Summary

The Illinois Department of Specialized Educational Services was in need of a need assessment process model to offer to school districts in the state. This model was to identify inservice training needs of educators involved in the delivery of services to handicapped children. The use of this model by school districts would help improve the unsystematic and unreliable needs assessment methods currently in use.
The systems approach to problem solving as stated by Kaufman (1972) was implemented to develop a model and, thus, resolve the problem. This methodology was chosen because it is a step by step approach and because it fulfilled the data, theory and methodology requirements of model building as stated by Greenberger et al. (1976).

Kaufman's (1972) six step approach guided this researcher from problem identification through the resolution of the problem. Problem identification was crucial to resolution of the problem because activities engaged in the following steps were based on this first step. Numerous person to person and telephone communications were conducted between this researcher and the IDSES before the actual problem was identified. The second step required the identification of solution requirements and the development of solution alternatives. Among the solution requirements, the need for the model to be applicable throughout the state presented the most challenging task. Illinois' population of handicapped students is one of the largest in the country and the state encompasses a large geographic area with significant diversity. This requirement largely affected the development of the instrument and the process to implement the instrument. Four solutions alternatives were derived for problem resolution. All four models were similar; the major differences being the type of instrument used and the inclusion of the inservice training and evaluation of that training in the model. After indepth review of the four models by special education administrators in Illinois and
Ohio, Tri-State Midwest Regional Resource Center (TSM-RRC) staff and this researcher, a model was chosen that provided options for instrumentation. Inservice training and evaluation of the training were not included as components of the model. These activities were viewed to have a direct but separate relationship with needs assessment processes. The next step in the methodology was to implement the solution strategy in concert with the solution requirements. This entailed the development of drafts of the model, the forwarding of those drafts to the IDSES and the gathering of feedback regarding those drafts. During this step, the revision component of the systems approach was frequently initiated. Each revision assisted in the clarification of existing data and/or the collection of new data and represented a closer approximation to the resolution of the problem. This process of approximations eventually led to the solution of the problem as evidenced by the approval of the IDSES to print the model and in other formal communications.

The developed needs assessment process model was not intended to be applicable to other states; nor was it considered to be the ideal model. It did, however, solve the problem of the IDSES and, thus, achieve the goal of this research.
Chapter IV
SUMMARY AND CONCLUSIONS

Summary

The main activity in this research was to implement a general systems approach to problem solving to develop a needs assessment process model to identify training needs of educators of handicapped children. As a result, this research may be summarized in three parts. The first part describes the context of the needs assessment problem in Illinois. School districts in the state are required to submit to the Illinois Department of Specialized Educational Services an application indicating needs assessment information regarding training needs of educators of handicapped children. The problems identified by the IDSES regarding needs assessment practices were a primary force in the initiation of this research. The second part deals with the problem solving methodology. The specific methodology used in this research was developed by Kaufman (1972) and was the major tool in the development of the model. Hence, the system approach and model building are briefly reviewed. The major solution requirement indicated by the IDSES was the development of a process model. The major points of the model are summarized in the final part of this section.

Current federal legislation (Public Law 94-142 Sections 121a. 380-387) mandates a Comprehensive System of Personnel Development for educators implementing a program for handicapped children and charges state and local educational agencies to carry out the plan. One major aspect of the mandate is the requirement for the implementation of inservice training for general and special educational staff including related services and support personnel and parents. The Illinois State Department of Specialized Educational Services assumed a significant role in inservice training activities by providing set aside funds to help support these activities. School districts must complete an application detailing identified needs, objectives for training, evaluation procedures and a budget. IDSES staff through technical assistance and monitoring activities found discrepancies between the application and actual practices. Specifically, many needs assessment practices did not include systematic procedures or various educational personnel. As a result, educational staff needs were not being adequately addressed and school districts were not fulfilling the intent of the Comprehensive System of Personnel Development.

The concerns of IDSES staff were well founded. Davis et al. (1980) in a summary of good practices in needs assessment substantiate these concerns. First, trainees' perceptions about their needs must be gathered. In Illinois, some districts were observed to complete
the identified needs section of the application based on the views of a single administrator. This method of assessing needs runs a high risk of not accurately identifying staff needs. Also, staff do not feel any ownership in inservice training and may choose not to become involved in such activities. Project Interserv (1979) in Massachusetts, in contrast, found an increase in the active participation of staff in inservice activities (e.g., planning, designing, implementation) when staff input was genuinely solicited. King, Hayes and Newman (1977) state that one component of all successful inservice programs was the effort to identify all local needs or problems that might possibly be met through inservice and that this identification was not made unilaterally by an administrator or outside expert.

A second practice reported by Davis et al. (1980) is the use of valid and reliable data collection techniques. The IDSES has reported that, at times, data was collected by an administrator discussing needs with a few select staff members. Interviews may be a valid and reliable approach, however, it is recommended that other strategies are used in conjunction with them (Davis, et al., 1980).

Kuh (1980) states that needs assessment has great potential as a tool to improve the education of all children if it is understood by teachers, administrators, parents and support staff. Some school districts in Illinois have not made a significant effort to use this potential.
Although, the IDSES did not possess comprehensive data regarding needs assessment practices in the state, the State Director, based on staff input, identified the area of needs assessment as a problem of immediate concern.

The Systems Approach to Problem Solving

The systems approach cannot be fully understood without mention of systems and general systems theory. First proposed by van Bertalanffy in 1950, general systems theory arose from man not thinking in terms of single machines but in the unity of all working parts. According to Mesarovic (1964), theories have traditionally developed within boundaries of a specific field (e.g., biological, physical, chemical). General systems theory suggests that at a basic level there exists a group of principles that can be applied usefully to systems in all fields. Johnson et al. (1973) state that general systems theory is concerned with developing a systematic, theoretical framework for describing general relationships of the empirical world. According to Luchsinger and Dock (1976), general systems theory has an objective of providing a framework that would unite all fields in a meaningful relationship.

The term system is referred to in the discussion of general systems theory. van Bertalanffy (1956, p. 3) defines a system as "a set of elements standing in interaction;" Silvern (1975, p. 1) states that a system is "the structure or organization of an orderly whole, clearly showing the interrelations of the parts of each other and to the whole itself." The interrelations of parts to each other
and to the whole can be viewed in the general system of a person, a specific system (e.g., nervous system), in a school system and in a transportation system. This is one way in which general systems theory crosses over different disciplines and assists in developing a deeper understanding of the world.

The systems approach evolved from general systems theory as society became more complex. This complexity manifested in problems regarding the control of natural resources, transportation within and between cities, air pollution, education and public health. The systems approach was seen as a tool in the resolution of these problems. Ramo (1973) points out that the systems approach is a technique for the application of a scientific approach to complex problems. Carter (1971, p. 25) states that the "systems approach involves a systematic and rational set of procedures by which a given educational, social, or technical problem can be approached." Miles (1973) views the systems approach as a set of concepts that can be used to satisfy a need or solve a problem. Montello and Wimberly (1975) offer high praise for the systems approach by their claim that achievements such as worldwide air travel, space travel and the telephone system have resulted from this approach.

The systems approach selected for this research was that of Kaufman (1972). Kaufman's systems approach is a type of logical problem solving process that can be applied in identifying and resolving important educational problems. The problem in Illinois was complex due to the nature and number of the requirements for
solution. This systems approach provided the methodology to achieve problem resolution. Kaufman's approach also fulfilled the three major model building requirements: theory, data and methodology.

The systems approach to problem solving as defined by Kaufman involves six steps. Each of the six steps work together to arrive at a solution. Although the steps may appear to be independent, they are significantly dependent on each other as the problem solving process progresses.

The first step activated was the identification of the problem. As cautioned by Kaufman, this step serves as the foundation for future steps. Included in this step were activities that provided information exchange between the researcher and the IDSES. Problem identification proved to be a challenging and time consuming task. One obstacle in problem identification was the inability, at first, of the IDSES to communicate the precise problem. When this step was first initiated the state agency requested a comprehensive needs assessment model regarding total delivery service to handicapped students. After in-depth communication activities, the real problem was based in the needs assessment practices of school districts; i.e., many practices implemented unsystematic and unreliable methodologies.

The second step involved two substeps: determining solution requirements and developing solution alternatives. Part of the data
for determining solution requirements were acquired during the process of problem identification. This was to be expected given the probing nature of communications conducted by this researcher in Step 1. The major requirement was that the needs assessment process would be applicable throughout the state of Illinois. That is, in small districts and large, in urban and rural districts the process model must be feasible to implement. The model was also to include a needs assessment instrument that could be completed in a brief period of time (e.g., thirty minutes) and designed for computerized compilation of results. Another requirement was that the process model should involve a variety of educational staff, including parents. Finally, detailed instructions were to be developed that guided the implementation of the entire process.

Four models were developed as solution alternatives. Each provided a skeleton of the needs assessment process and strategies regarding instrumentation. The models were developed based on information acquired through literature searches, communications with federal projects, other needs assessment models and through input from staff at the Tri-State Midwest Regional Resource Center (TSM-RRC). Each model incorporated several components including an advisory committee and strategies for instrumentation, data collection and data analysis. One major difference among the models was the provision of inservice training and the evaluation of the training. Also, the type of instrumentation (e.g., commercially produced, district
produced) distinguished certain models from others. The solution alternatives were developed in light of the solution requirements.

A solution strategy was selected (Step 3) after review of the alternatives by special education administrators in Illinois and Ohio and by staff at the TSM-RRC. Basically this model emphasized planning and involvement of the needs assessment team (Advisory Committee), required specific strategies for data collection and analysis and included a need assessment instrument with options for the school district. The objective of the model was to serve as a reference for development of the needs assessment process model.

Step 4 involved the implementation of the solution strategy. With the problem, solution requirements and solution strategy as guidelines, drafts of the process model were developed. The two major activities undertaken were the development of a needs assessment instrument and the needs assessment process. Approximately thirteen drafts of the instrument were produced. Each draft was either forwarded to the IDSES or, if minor changes were instituted, telephone communications were used. Each draft represented a closer approximation to the final product. A field test involving 25 participants was conducted as a final revision phase. The results were highly positive, however, certain recommendations regarding the form of the instrument were put into place. The strategy in developing an implementation process for the needs assessment was to include procedures that were relatively simple. These procedures propose
that existing school district staff play a major part in the process by planning the needs assessment, implementing it (with assistance in certain situations) and analyzing data.

Both the development of the needs assessment instrument and process required a balance between what the IDSES required and what was feasible for school districts. Simon (1958) refers to this as bounded rationality. This principle proposes that there are practical limits to human capabilities, and that these limits are not static, but depend upon the organizational environment in which the activity takes place. This balance, as indicated later, was achieved in the research but regular communication with the IDSES was necessary.

Step 5 of Kaufman's system approach is determining performance effectiveness. For this research the IDSES was ultimately responsible for determining whether the needs assessment process model met the need in the state and, thus, solved the problem. This researcher set out to provide a solution for the IDSES that was "good enough." Simon (1958) calls this an act of "satisficing." He states that the key to an effective solution appears to lie in substituting the goal of "satisficing," of finding a "good enough" move, for the goal of maximizing, of finding the best move.

The IDSES through verbal and written communications approved the printing of the model and specified that it met with the approval of the agency. This researcher worked with five staff members of the IDSES including the director. Essentially, the IDSES, in accepting the model, verified it as a solution for the problem. Verification
is a test of whether the model was synthesized as intended (Greenberger, et al., 1976). Thus, the model gained credibility and won acceptance by meeting the individual solution requirements of the state department and by meeting the overall objective of developing a needs assessment process model for implementation by local school districts.

The last step in this approach involves the revision of materials. This self-correcting feature of this systems approach assures constant relevancy and practicality. According to Kaufman (1972), revision should be continuous and ongoing to assure that needs are ultimately met. In addition, he states that an educational system must be regularly evaluated and, if necessary, revised in terms of its ability to meet the needs and requirements it set out to respond to and the appropriateness of performance at any point in the problem resolution process.

The revision component was initiated in Steps 1 (Identifying the Problem), Step 2 (Determine Solution Alternative) and, most importantly, in Step 4 (Implement Solution Strategy). During the process of identifying the problem, information exchanges between this researcher and the IDSES staff revised what was originally identified as the problem; i.e., additional data was used to determine the specific problem. Revisions in determining solution strategies led to the development of four alternatives (models). Information from the literature, other projects and models and from other educators was collected and reviewed in reference to the solution
requirements. Starting with the three step process in the initial solution strategy (Model A), three other strategies were developed. Finally, in Step 4 (Implement Solution Strategy) revisions were a regular occurrence as approximations to the final product were developed. As drafts for products were produced, feedback from the IDSES and other educators were used to make revisions. The revision component also provided a way to gain additional data from the reference system; this helped meet the data requirement of model building.

The Needs Assessment Process Model

The needs assessment process model was comprised of three major parts. The first part, a booklet entitled Need Assessment Instructions for Inservice Training, detailed the planning activities for the needs assessment and provided step-by-step guidelines for disseminating and collecting the instrument and for summarizing the data. It provided examples at most steps. Also included in the booklet was a brief state of the art in needs assessment and a bibliography. The second piece of the model was the needs assessment instrument. It consisted of four pages complete with instructions for respondents and, on page four, a summary of the detailed process instructions found in the booklet. Part three was a summary sheet for graphic display of the needs assessment results. The purpose of this summary sheet was for the needs assessment team to use as a reference in prioritizing needs.
The process model, in final form, met the solution requirements of the IDSES. Specific provisions were built into the model to allow for implementation throughout the state. The needs assessment instructions served as guidelines for school districts. For example, the advisory committee (team) should be composed of various personnel within the district, however, only suggestions, not directives were stated in the instructions. Also, in terms of instrumentation, two options were provided in the model for school districts. The first option was to use the developed instrument. The second option was to use the developed instrument as a model for the development of a district specific instrument. If the latter option is chosen, the identification data, the rating of the seven main topics, and space for needs not assessed and comments should be identical to that on the developed instrument. The subtopics, however, are left to the discretion of the needs assessment team. Instructions for summarizing results and completing a summary sheet were also included in the model. Since the summary sheet depicts the percentage of respondents who checked each subtopic as an immediate need, it provides a quick reference for the needs assessment team regarding prioritization of needs. Prioritizing needs, though, is left solely to the school district; i.e., the model does not include specific guidelines for this activity.

A field test of the instrument revealed that it required an average of 35 minutes for respondents to complete it. This was close to the 30 minute requirement set by the IDSES. Field test
participants were given little background information before responding to the instrument. The process model suggests that, prior to disseminating the instrument, needs assessment facilitators discuss the purpose of the instrument and review instructions.

Initially, the instrument was to be designed for machine scoring. This solution requirement was eliminated because many school districts did not have the capacity to do so; however, school districts may pursue machine scoring on their own.

Lastly, the process model was designed to be cost effective. A school district, in implementing the model, would only have to absorb the cost of copying and, possibly, the cost of personnel spending extra time serving on the needs assessment team.

Conclusions

A number of conclusions have been reached by this writer from conducting this study. Of prime importance to this writer was the effectiveness of the systems approach in solving the problem and in building a model. Thus, the effectiveness of the systems approach will be discussed in the first part of this section followed by the limitations in interpreting the results of the research, suggestions for improving the needs assessment process model and suggestions for future study.

The Effectiveness of the Systems Approach For Problem Resolution

The six step systems approach described by Kaufman (1972) is a generic process. No step is specifically linked with education although Kaufman states that "these six steps, which may be considered
a problem-solving process, form the basic process model for a system approach to education" (p. 12). The author does not qualify what types of educational problems (e.g., instructional, administrative) are relevant to this approach. This writer, because of the approach's systematic nature and its fulfillment of model building requirements, felt confident in its selection.

Based on the acceptance of the needs assessment process model by the IDSES, it can be stated that the systems approach was effective in solving this educational problem. Product aside, the systems approach was appropriate for the context of the problem. The context involved the development of a tangible solution to a problem that involved numerous activities and personnel. The systems approach was valuable in organizing efforts and maintaining those efforts towards problem resolution.

Inherent in the systems approach was the need to gather input from diverse resources. Although procedures for gathering input were not detailed in the systems approach, the requirement for securing input was specified (e.g., Identify the Problem, Determine Solution Requirements) and this researcher developed procedures to meet the input requirement.

The systems approach was an effective methodology for resolving the problem in Illinois. The six step process, from problem identification to revision, systematically maintained progress to problem resolution. The self-correcting feature (Step 6-Revision) proved essential in removing certain obstacles (e.g., instrument
language and format) throughout the process. The systems approach also simplified a complex task into manageable parts by the step-by-step approach. Although each step was not independent of others, in fact, the contrary was true, this approach structured the complexities of the problem into smaller units so that efforts were concentrated rather than spread out. This writer supports Kaufman's contention that the systems approach is a logical, problem solving tool.

In evaluating the systems approach as a problem solving methodology, this writer concludes that through context, input, process and product evaluation, this methodology was efficient for this type of activity.

The Systems Approach as a Modeling Methodology

A result of the problem resolution process was the development of a needs assessment process model. In developing the model, three requirements for model building were considered. As stated by Greenberger, Crenson and Crissey (1976), theory, data and methodology are three essential ingredients for model building. Kaufman's systems approach met each of these requirements.

With its foundation in general systems theory, the systems approach works on the theory that all the parts (steps) of the approach work in concert towards an objective, the resolution of a problem. Regarding this research, the behavior of the systems approach supported its theoretical roots. Each step in the methodology performed its individual role and also worked together to achieve
problem resolutions. For example, developing solution alternatives is impossible without first understanding the problem and the requirements needed for problem resolution. In practice, then, the systems approach is a culmination of the completion of six activities that lead to the solution of a problem.

The systems approach was especially efficient in data gathering. Each step, with the possible exception of Step 5—Determining Performance Effectiveness, provided for data input. At each step, activities were developed to link this writer with the reference system, experienced administrators in needs assessment and other informational resources.

The system approach provided a systematic approach to the problem. Model building occurred in a logical, sequential order. The systems approach was also an appropriate modeling methodology for this problem. There must be a close relationship between the structure and behavior of the system. For example, if the system reflects activities of a quantifiable nature then the model must be able to handle this data. In this research the primary concern was the procedures used in a real system. The systems approach enabled this writer to produce procedures for the real system that were found to be suitable in improving the system. Thus, it can be concluded that the systems approach as described by Kaufman (1972) is relevant for educational problems of the type in this research.
This writer has identified several recommendations that would be helpful in future applications of this systems approach to educational problems:

1. It would be helpful if the researcher had ready access to the reference system. Access is specifically meant to mean direct observation of or select participation in the reference system. This does not, however, exclude written or verbal communications with those involved in the reference system.

2. Objectivity is maintained easier if the researcher is not a participating member of the reference system. If so, the researcher should identify the persons with whom communication and information sharing will take place. If the researcher is a functional member of the reference system outside review of the progress of the systems approach is essential.

3. The implementation of the systems approach can be a lengthy and detailed process. Caution should be exercised if time is a critical factor in resolving a problem.

4. A clear understanding of each step of the systems approach is essential for successful implementation. Of particular importance is
the understanding of problem identification. The problem and manifestations of the problem must be distinguished.

5. Organization at every level of the systems approach is important because of the amount and type of information that is gathered throughout the process.

Limitations

The implementation of the systems approach was successful when applied to the problem in this research. There are, however, a few points regarding the systems approach and the resolution of this problem that should be mentioned.

Although there was a specific problem in Illinois, the data that provided input into the systems approach was general in nature. For example, perceptions of IDSES staff regarding the problem were significant data; however, there were no statistical evidence to support the problem. Other needs assessment instruments and expertise of special education administrators were referenced to assist in developing content for the needs assessment instrument. Research studies that may have indicated typical inservice training needs were not a part of the data collected for the instrument. As a result, there is no assurance that the systems approach used in this research would be effective in dealing with data that is precise and statistical.
The entire process model was based on the educational system in Illinois. The data gathered and used to develop the model were primarily received from persons in that state. It is possible, then, that use of this model may not be applicable to other states. In contrast, though, a featured characteristic of the model is its flexibility and adaptability and, because of this, certain school districts in certain states may find the model useful. This was not, however, the intent of this research.

A question that certainly should be raised is whether school districts in the state will use the model. The IDSES cannot mandate that a school district adopt this model, although it will be suggested that they do so. The systems approach, as implemented, did not include representatives from school districts throughout the state to participate in the process. IDSES staff, experienced in providing technical assistance to school districts, indicated confidence in their ability to determine the feasibility of needs assessment procedures. The model will be offered to school districts for use but actual use will be determined by each district alone. The IDSES, in its monitoring of public schools, plans to carefully scrutinize need assessment practices. Therefore, it may be in the best interests of the school districts to adopt this model.

The educational system in Illinois is not static. Many factors such as changing legislation, economics and fluctuations in student enrollment have potential to create change in the present educational
system in Illinois. Changes that do occur may render the model less relevant in identifying needs for inservice training. **Suggestions for Improving the Needs Assessment Process Model**

The problems identified by the IDSES regarding needs assessment practices by school districts have been specified throughout this text. School districts, in order to receive funds for inservice training, must provide needs assessment data, in application form, to the state agency. Although school districts have adhered to this framework, there is doubt as to the the quality of efforts in determining needs. Even with the development of this needs assessment process model, it is not clear whether school districts will adopt the model or strive to improve existing needs assessment methodologies. The IDSES can, however, affect change through its monitoring activities of school districts.

Suggestions that would improve the quality of needs assessment efforts and increase the accuracy of the identification of needs are listed below:

1. Support and commitment of the board of education and central office personnel to needs assessment activities would convey an attitude of importance to all school personnel. This commitment might include financial support, time release for needs assessment team members and the establishment of a district goal for improved staff development
activities. Ideally, a needs assessment for all personnel, would be implemented in conjunction with the needs assessment involving special education activities.

2. The establishment of IDSES teams that would provide need assessment technical assistance to school districts. This technical assistance would be provided on a need basis and would take place in the school district rather than a regional location.

3. The conducting of case studies of a sampling of school districts regarding the needs assessment process model. The results of the case studies would then be disseminated to school districts throughout the state.

4. The establishment of an inservice team or the incorporation of representatives of such a team into the needs assessment team. Either way, an administrative relationship between needs assessment and subsequent inservice training would assure that effective assistance is being provided to school district personnel.

5. The literature has indicated that needs assessment practices that extensively involve staff in planning and implementation stages gain the
active support of staff. This includes placing importance on staff input into identifying needs. As a result, it is suggested that structured interviews be held with needs assessment participants.

6. The training of needs assessment team leaders in needs assessment methodologies and in decision making and prioritization strategies. Team leaders should also be fully aware of the philosophy and goals of the school district.

7. The development of an annual report that indicates identified needs and the manner in which these needs were met by inservice training.

8. The development of input channels that allow district staff to state their evaluation of the needs assessment methodologies and how they might be improved.

Suggestions for Further Study

Many needs assessment studies identified in the literature focus on the actual implementation of a needs assessment with emphasis on results; others, while not directed toward results, offer general guidelines for conducting needs assessment. Few studies were identified that dealt with the development of a needs assessment model. Since this model is a prototype, this writer will identify research
problems using this study as a foundation. In addition, because needs assessments regarding inservice training can have direct impact on educational service delivery, research problems related to the improvement of needs assessment practices will be listed. Worthwhile research may be conducted in the following areas:

1. The development of case studies of school districts using the model developed in this research as a needs assessment methodology.

2. The development of a needs assessment model to identify general as well as special education inservice training needs.

3. The development of a comprehensive reporting system that indicates statewide and regional special education inservice training needs.

4. The establishment of a system that links school districts with common needs in order to coordinate efforts to meet these results.

5. The development of training activities for state education agency staff and school district personnel regarding the processes involved in the implementation of needs assessments.

6. The development of predictive models for advanced planning of inservice training activities.
7. A study investigating the improvement of monitoring and technical assistance practices of state departments regarding needs assessment practices.

8. A study of the relationship between identified inservice training topics and the activities developed to meet those needs.
APPENDIX A

Illinois Department of Specialized
Educational Services Needs Assessment Forms
**NEEDS ASSESSMENT**

A. A current needs assessment for the entire entity, e.g. joint agreement, was conducted and is on file for:

- [ ] Meeting the needs of unserved children
- [ ] Meeting the needs of underserved children
- [ ] Inservice training
- [ ] Other (specify)

B. The following types of needs assessment instruments were utilized:

<table>
<thead>
<tr>
<th>Questionnaire (local)</th>
<th>Standardized Test Review</th>
<th>IEP Review</th>
<th>Discrepancy Model</th>
<th>Illinois Problems Index</th>
<th>Opinionnaire (local)</th>
<th>Other (specify)</th>
<th>Ratings Scales</th>
</tr>
</thead>
</table>

C. The following groups/organizations were involved in the needs assessment process:

<table>
<thead>
<tr>
<th>Parents</th>
<th>Other (specify)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students</td>
<td></td>
</tr>
<tr>
<td>Social Service/Health Service Agencies (local)</td>
<td></td>
</tr>
</tbody>
</table>

D. Number and list in rank order the needs of the entire entity which were identified through the needs assessment process. (One or more of the listed needs must be inservice training.)

<table>
<thead>
<tr>
<th>Needs</th>
<th>Rank</th>
</tr>
</thead>
</table>

E. List by number only those needs stated in section D which are to be addressed by this project. (One or more of the listed needs must be inservice training.) These numbers are to be entered in the "Need Number" area of the Problem and Objective Statement Narrative page, the Evaluation Component Narrative page, and the Detailed Budget Breakdown page.
<table>
<thead>
<tr>
<th>PROBLEM STATEMENT NARRATIVE</th>
<th>OBJECTIVES</th>
<th>ACTIVITIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>In concise terms, define the problem, including any data which have been collected to assess needs and/or which validate the existence of the problem. One or more problem statements should be listed for this need.</td>
<td>Briefly state objective, quantifiable terms what is to be accomplished in solving this problem and what criteria will determine success. One or more objectives should be listed for each problem statement narrative.</td>
<td>Specify one or more activities which will support the objective. Indicate the duration of the task, the staff responsible for, and all required resources (transportation, equipment, etc.) needed to accomplish each activity.</td>
</tr>
</tbody>
</table>
Complete one copy of this page for each "need" from Section E, Needs Assessment which is to be addressed by this project. Enter the "need number" in the space provided to the right. Describe the evaluation procedures and instruments to be used to determine the extent to which this "need" will have been met.
### DETAILED BUDGET BREAKDOWN

Complete one copy of this page for each "need" from Section E, Needs Assessment which is to be addressed by this project. Also, complete this page for the entire project. Enter the "need number" in the space provided to the right. When completing the Composite Project page, enter "Total" in this space. Provide an itemized breakdown of the line item expenditure accounts listed on the "Budget Summary and Payment Schedule". Identify each expenditure by account number.

<table>
<thead>
<tr>
<th>EXPENDITURE ACCOUNT</th>
<th>ALLOWABLE EXPENDITURE</th>
<th>OFFSETTING REVENUE</th>
<th>GRANT EXPENDITURES</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**TOTAL**
**PROJECT PERSONNEL RECORD**

**INSTRUCTIONS:** Enter all personnel and/or positions which are to be paid in full or in part with project funds. As positions are filled or turnover occurs, update this record and submit with the regularly scheduled project reports. Reproduce this page as needed.

<table>
<thead>
<tr>
<th>NAME</th>
<th>TITLE OR POSITION</th>
<th>TYPE OF CERTIFICATION</th>
<th>DATES OF EMPLOYMENT CURRENT YEAR</th>
<th>TOTAL SALARY</th>
<th>FUNDING SOURCE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>BEGINNING</td>
<td>ENDING</td>
<td>PART B FUND THRU</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ENDONENT REGISTRATION</td>
<td>1-3</td>
<td>1-3</td>
<td>1-3</td>
</tr>
</tbody>
</table>

This table can be used to record personnel information and funding details for a project.
STATEMENT OF ASSURANCES

The applicant hereby gives assurances to the State Superintendent of Education that:

1. Overall, the services being provided in program areas are at least comparable to those being provided in the areas of the local educational agency not receiving funds under this project.

2. In regard to the administration and operation of the special education program, compliance will be made with Illinois statutory law pursuant to The School Code of Illinois and the Rules and Regulations to Govern the Administration and Operation of Special Education.

3. The funds made available under EHA Part B, will be used to supplement and, to the extent practical, increase the level of state, local, and private funds expended for the education of individuals with exceptional needs, and, in no case, supplant such state, local, and private funds. These funds, therefore, will not pay for all of the special education and related services for a given child.

4. The applicant will make a report within 30 days after termination of the application, and such other reports to the State Educational Agency in such form and containing such information as may be necessary to enable the State Educational Agency to perform its duties under the applicable law, including information relating to the educational achievement of students participating in programs. The applicant will keep such records and afford such access thereto as the State Educational Agency may find necessary to assure the correctness and verification of such records.

5. In regard to the confidentiality of personally identifiable information and the privacy rights of parents and students, compliance will be made and procedures will be accomplished in accordance with the Illinois School Student Records Act of 1975 (Ch. 122, Art. 50, Illinois Revised Statutes, 1975) and the Rules and Regulations to Govern School Student Records.

6. The Applicant acknowledges review of the Illinois State Plan for special education and will implement procedural safeguards for due process guarantees; will provide education for handicapped children in programs with children who are not handicapped to the maximum extent appropriate; will provide non-discriminatory testing and assessment; and will guarantee confidentiality of student records, pursuant to procedural safeguards.

7. Each agency certifying participation in the project has been granted formal local governing board approval to participate and a list of these agencies and their certification to participate is on file with the applicant agency.

8. Compliance will be made with the Act Prohibiting Discrimination in Public Contracts (Ch. 29, Par. 17, et seq., Illinois Revised Statues, 1975) and the Illinois Fair Employment Practices Act (Ch. 48, Par. 851, et seq., Illinois Revised Statues, 1975).

CERTIFICATION BY PARTICIPATING AGENCIES

Each of the undersigned representatives affirms that, to the best of his or her knowledge, the information contained in this application is correct and complete, and that the responsible agency or other agency which he or she represents has authorized him or her to file this application. The responsible agency named in B has been designated as the administrative and fiscal agent for this program and is authorized to receive and expend funds for the conduct of this program. A method of distributing funds has been agreed upon which will insure that the needs of all handicapped children as specified in Section D, Needs Assessment, are being met.

A. AGENCY SUBMITTING APPLICATION

APPLICANT NAME (Local Agreement, District, Entity, or Program)

NAME AND TITLE OF PROJECT DIRECTOR PHONE

ADDRESS (Street, City, County, Zip)

NAME OF AUTHORIZED REPRESENTATIVE PHONE

Date Signature of Project Director

B. AGENCY DESIGNATED AS ADMINISTRATIVE AND FISCAL AGENT

AGENCY NAME

Date Signature of Authorized Representative

CERTIFICATION OF REVIEW BY REGIONAL SUPERINTENDENT

I, the superintendent of the region in which the responsible agency named in B is located, have reviewed this application and affirm that, to the best of my knowledge, the information contained in this application is correct and complete.

Date Signature of Regional Superintendent

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APPENDIX B

Correspondence with Illinois

Department of Specialized Educational Services
January 29, 1981

Ms. Gloria Calovini
Department of Special Education Services
Office of Education
100 North First Street
Springfield, Illinois 62701

Dear Gloria:

This letter is sent as a follow-up to our visit to Springfield on January 19th and 20th. We felt that much was accomplished by our visit. We appreciated the time and attention of personnel in answering our questions.

Due to the limited time we had, I thought the best way to approach this task was to put our questions in a letter to you by sections of our Letter of Agreement. Perhaps after studying these questions, you could give us a call (collect) to discuss your responses. I think we have fairly clear idea of what's wanted, but there are some loose ends.

A. Comprehensive Plan:

1. The major use of the Comprehensive Plan would be the J.A. Regions. Would there be a distinct LEA component or unit? What specific data from LEAs are we positive at this point must be included?

2. Do you have any information at the present time as to what the major components of the Comprehensive Plan would be? If not, perhaps this should be our starting point.

3. What general criteria might the Division of Specialized Educational Services apply to each of the Comprehensive Plans to evaluate or approve/disapprove? What I'm searching for here is the general quality your Division desires overall.

4. Will October 1981 be suitable for the target date for draft copy of data collection instrument?

5. Will Julie Carter be our major working contact on this section?

B. Extended School Year Criteria

1. We're clear on this task. Gail Lieberman was kind enough to provide us with considerable data. We assume that Gail will be our working contact on this section.

2. Will we be able to secure copies of LEA applications for this year's requests for extended programs.
C. Illinois Alliance

1. No one sat with us and the planning group of the Alliance to discuss the plan. Will there be someone in the Division designated to serve as our contact? The Alliance may request activities which conflict with the State's child identification efforts, therefore a Division representative probably should be present.

2. Beside the "Parent Guide" material what other print information is available to parents and consumers? How is it disseminated?

Thanks for the assistance.

Sincerely,

Larry A. Magliocca, Ph.D.
Director

LAM/mjp
Ms. Gloria Friend
Program Assistant Specialist
Tri-State Midwest RRC
356 Arps Hall
1945 North High Street
Columbus, Ohio 43210

Dear Ms. Friend:

Thank you for your letter of March 16, 1981 concerning the Illinois Needs Assessment Process Model (transaction 06-IL-05). The items that you list in your letter are essentially correct. However, in terms of the data collection system identified in item #1, please note that the intent is for the needs assessment to establish what the total special education needs are of the local joint agreement. That is, we are not looking for a needs assessment specific to disbursement of federal funds but rather a needs assessment which will identify basic needs for the total special education program. The local administrative agent would then be able to use the needs assessment results to determine the priorities for the disbursement of grant funds. The needs assessment would identify current levels of services, levels of needed service, and the efficiency and effectiveness of current resources. The agency should then be able to determine what additional services are needed and to develop a comprehensive view of needed inservice activities. With this information the local agency could determine which needs they can fulfill with local resources and which needs require the use of supplemental federal funds.

The item #2 is correct. The model should be a process model that will allow for local adaptation and use. Also, I agree with the timelines identified of September, 1981 and January, 1982.
I hope this information clarifies what we are looking for in the needs assessment document. Essentially we are not looking for a highly technical document, but rather a basic model for use throughout the state. If I can be of additional assistance, please do not hesitate to call upon me.

Sincerely,

Jack E. Shook
Assistant Manager
Department of Specialized Educational Services

cc: Gloria Calovini
    Dr. Larry Magliocca
    Mr. Robert Rinaldi
    Ms. Tina Siddele

GAO/47941
September 24, 1981

Mr. Jack Shook
Assistant Manager
Grants and Contracts Unit
Department of Specialized Educational Services
Illinois Office of Education
100 North First Street
Springfield, Illinois 62701

Dear Mr. Shook:

The needs assessment transaction initially called for the development of a statewide process model that would establish a procedure for the identification of total special education needs at the joint agreement level. This model would address the current levels of service available to exceptional children, the levels of needed service and the efficiency and effectiveness of current resources. As a result, a draft report was developed and presented.

During the meeting on August 11, 1981, the RRC staff was informed that the scope of the needs assessment transaction had changed. That is, the needs assessment process model should address the area of personnel preparation from the perspective of inservice training. Also, the following understandings were noted by the RRC staff regarding this transaction:

- The needs assessment model should be appropriate at the LEA level and should be flexible enough to reflect the concerns of various personnel and consumers.

- The context of the instrument should reflect the ten areas of inservice needs previously identified by the IDSES.

- The needs assessment instrument should be constructed with the capability for machine scoring.

- Field testing of the instrument will be planned cooperatively between the RRC staff and the IDSES staff.

- The process model should be shared with the State Advisory Council on Handicapped Children.

Faculty for Exceptional Children
College of Education
September 24, 1981
Mr. Jack Shook

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- The Illinois Association of Special Education Administrators could be a potential resource for critiquing of the model.

- The needs assessment will help to insure that directors plan for use of set aside monies for in-service training. The needs assessment will be kept on file for review by monitoring teams.

During a recent meeting with the RRC staff members working on this transaction, we realized the need to meet with you, Gloria Calovini and other staff members to begin to develop the needs assessment instrument. A meeting in Springfield during the week of October 12 would be ideal.

Your assistance in the development of the needs assessment model is greatly appreciated and I'm looking forward to working with you in the near future.

Sincerely,

William Lee
Program Assistance Specialist

WL/mjp

cc: Dr. L. Magliocca
    Ms. B. Rinaldi
    Ms. S. Butler
    Mr. J. Fisher
    Ms. G. Calovini
October 13, 1981

Mr. Jack Shook
Assistant Manager
Grants and Contracts Unit
Department of Specialized Educational Services
Illinois Office of Education
100 North First Street
Springfield, Illinois 62701

Dear Mr. Shook:

After our telephone conversation on September 29, the RRC needs assessment team, consisting of Dr. Larry Magliocca, Ms. Billie Rinaldi, Ms. Shirley Butler, and Mr. William Lee met to discuss the needs assessment process model.

As you may know a key element in the development of a process model is a firm understanding of the problem and those variables that may affect it. That is, the needs assessment process involves making many judgements regarding strategies for the collection of information, analysis and interpretation of data, decision making, etc. Ideally, making judgements regarding the model should be a collaborative effort between those developing the model and those who will implement it.

Listed below are five points that are in need of clarification. Would you please respond, either in writing or at the October 20 meeting, to these points in order to assist us in developing the model.

1. The transaction agreement states that a process model along with an instrument will be developed. What should be included in this model (set of instructions, graphic presentations, etc.)?

2. The list of ten areas of inservice needs identified by the Illinois Task Force on Personnel Preparation were prescribed to be included in the content of the model. Would you please reconstruct a partial listing or some general categories inclusive of those areas?

3. What are the unwritten priorities or goals for inservice in terms of state and local expenditures? How do these expenditures relate to teacher assistance teams?
October 13, 1981
Mr. Jack Shook

Page 2

4. What specific data/criteria is presently used by the CSPD Committee to make decisions for areas of inservice training?

5. The development and statewide implementation of an instrument by February 1982 will not be possible. Field testing of a draft instrument would be possible by February should no commercial product be found that meets your needs.

Dr. Larry Magliocca and I will be arriving at the Springfield Airport at 11:10 a.m. on October 20 and are scheduled for a 4:25 p.m. return flight that afternoon. As a result, we would appreciate meeting with you and Gloria Calovini from 12:30 - 3:30 p.m.

Thank you for your continued assistance in the development of this transaction.

Sincerely,

William Lee
Program Assistance Specialist

WL/mjp

cc: L. Magliocca
    B. Rinaldi
    S. Butler
    J. Fisher
    G. Calovini
Mr. Jack Shook  
Assistant Manager  
Grants and Contracts Unit  
Department of Specialized Educational Services  
Illinois Office of Education  
100 North First Street  
Springfield, Illinois 62701

Dear Mr. Shook:

Based on the content of the October 20 meeting, the RRC needs assessment team will proceed with the process model. I am writing to confirm what the Illinois Department of Specialized Educational Services is expecting to receive from the RRC during the second week in January 1982.

The process model is to be general in nature and applicable at the LEA and Joint Agreement levels for in-service expenditure decisions. We anticipate the package to include the following: an introduction that will provide background information regarding the need and use of the model, a process model related to child centered needs, a section addressing training, decision making, tabulation of data, etc, and a needs assessment instrument(s).

We'll keep in contact with you during the development and would appreciate feedback from you and Gloria Calovini.

Please contact me by November 6 if you have any questions; otherwise, I will assume that we are in agreement.

Dr. Magliocca and I appreciate the time and discussion that you, Mike Kotner and Gloria extended to us on October 20.

Sincerely,

William Lee  
Program Assistance Specialist

WL/mjp

cc: B. Rinaldi  
S. Butler  
L. Magliocca  
T.M. Stephens  
J. Fisher  
G. Calovini

Faculty for Exceptional Children  
College of Education
Mr. Jack Shook  
Assistant Manager  
Grants and Contracts Unit  
Department of Specialized Educational Services  
Illinois Office of Education  
100 North First Street  
Springfield, Illinois 62701  

Dear Mr. Shook:

In accordance with the agreement reached at the October 20, 1981, meeting, please find enclosed draft copies of a needs assessment instrument, the needs assessment facilitator's instructions, and a state reporting form.

Basically, one instrument has been developed with two options. The first option is to use the instrument as is; the second is a minor modification of the complete instrument. That is, the job information section, seven main topics, and space for needs not assessed and comments remain. The districts, however, must develop specific subset needs for each main topic. We have been advised not to use machine scoring for this kind of research. Our consultant has investigated this issue and recommends that the use of coders would be more cost and time efficient.

The needs assessment facilitator's instructions provide guidelines for the needs assessment team in the implementation of the process.

Lastly, the state reporting form is designed to provide the state department with basic data related to the results of the needs assessment.
Your review and comment of these materials are needed as we approach final form. I will contact you on January 20 to discuss possible changes and future plans.

Feel free to contact me if you have any questions.

Sincerely,

William Lee
Program Assistance Specialist

cc: T. Stephens
L. Magliocca
B. Rinaldi
J. Fisher
G. Calovini
Dear Mr. Shook:

Please find enclosed the needs assessment materials which we discussed during our telephone conversation on February 16, 1982.

The materials include directions for the dissemination and collection of the needs assessment instrument and for summarization of data. Please note the changes made on the Identification Data Sheet.

As completion of the transaction draws near, we are initiating work on a final report. A projected date has been set for March 19, 1982 for forwarding of the report to the Illinois Department of Specialized Educational Services for review. At that time, if further explanation regarding the process model is necessary, a meeting can be scheduled between IDES staff and TSM-RRC staff to clarify procedures.

Please feel free to call me if you have any questions.

Sincerely,

William Lee
Program Assistance Specialist

WL: jc

cc: T. Stephens
    L. Magliocco
    B. Rinaldi
    J. Fisher
    G. Calovini

Faculty for Exceptional Children
College of Education
May 4, 1982

Mr. Jack Shook
Department of Specialized
Educational Services
Illinois Office of Education
100 North First Street
Springfield, Illinois 62777

Dear Jack:

Enclosed please find a copy of draft materials that, we anticipate, will be delivered to local school districts. The package includes a detailed set of process instructions, an organizational chart, and the printed instrument with summary instructions.

Dr. Magliocca has indicated that the TSM-RRC will provide for the cost of printing a specified number of instruments. The process instructions and organizational chart will be machine copied.

Before initiating printing or copying, I will wait for your response to the materials. May 15 has been projected as a target date to begin formalized reproduction of the package.

Looking forward to hearing from you.

Sincerely,

William Lee
Program Assistance Specialist

WL: mc

Enclosures

cc: L. A. Magliocca
    T. M. Stephens
    J. E. Fisher
    G. Calovini
    B. Rinaldi

Faculty for Exceptional Children
College of Education
July 13, 1982

Mr. Charles Crowley
Department of Specialized Educational Services
Illinois Department of Education
100 North First Street
Springfield, Illinois 62701

Dear Mr. Crowley:

Enclosed please find copies of the final proof of the needs assessment instrument. Although the copies consist of four separate pages, the printed instrument will be an 11" X 17" sheet of paper, folded in the middle, with printing on all sides.

In order to better illustrate the needs assessment results, an additional component has been developed. Step 7 under Instructions For Needs Assessment Team Leader indicates that the results are to be graphed on the NEEDS ASSESSMENT SUMMARY SHEET. This sheet is in proof stage and will be forwarded to your office shortly.

Approval of the instrument by your office and an indication of the color of the instrument is needed before printing begins. I will contact you at the end of next week regarding this information.

Thank you for your assistance in this matter.

Sincerely,

William Lee
Program Assistance Specialist

cc: T. Stephens
L. Magliocca
J. Fisher
G. Calovini
J. Shook

Faculty for Exceptional Children
College of Education
July 27, 1982

Mr. Charles Crowley
Dept. of Specialized Educational Services
Illinois Office of Education
100 North First Street
Springfield, Illinois 62777

Dear Charles:

As stated in my letter of July 13, enclosed please find a draft copy of the NEEDS ASSESSMENT SUMMARY SHEET. The final form will be one sheet with printing on both sides.

Also, I have included a revised packet of information to be sent to school districts. The revision basically pertains to the process instructions for the completion of the summary sheet (Step 7).

I will contact you on August 2 for your response to these materials.

Thank you for your continued assistance in this matter.

Sincerely,

William Lee
Program Assistance Specialist

Enclosures

cc: T. M. Stephens
L. A. Magliocca
J. E. Fisher
G. Calovini
J. Shook

Faculty for Exceptional Children
College of Education
August 6, 1982

Dr. Larry Magliocca
Director
Regional Resource Center
Ohio State University
Faculty for Exceptional Children
356 Arps Hall
1945 N. High Street
Columbus, Ohio 43210

Dear Larry:

I am writing in response to our phone call of August 4, 1982 regarding the printing of the Needs Assessment. In discussing this with Gloria Calovini, she has given assurance that the content of the Needs Assessment meets the approval of this office. Should you have additional questions, please contact Gloria at 217/782-6601.

Sincerely,

Joseph E. Fisher
Assistant Superintendent
Department of Specialized Educational Services

cc: Gloria Calovini
October 27, 1982

Dr. Larry A. Magliocca
Director
Tri-State Midwest Regional
Resource Center
Ohio State University
356 Arps Hall
1945 North High Street
Columbus, OH 43210

Dear Dr. Magliocca:

Please accept my sincere appreciation for the excellent service you and your staff provided in developing the inservice data collection instrument. You have produced a very practical and useful assessment tool.

I am especially pleased with the process model which is associated with the instrument. This brings the flexibility and adaptability which is needed, given the diversity of our Illinois school systems.

A special note of thanks should be given to Bill Lee for his coordination efforts with members of my staff. He was always very helpful and professional in his interactions.

Thanks again for a fine job.

Sincerely,

Joseph E. Fisher
Assistant Superintendent
Department of Specialized Educational Services

cc: Bill Lee
Tom Stephens
APPENDIX C

Sample Needs Assessment Instruments
The Division of Special Education, Nevada Department of Education, sponsors many inservice training activities for educators. Your assistance in completing this survey is requested so that we might better plan for these training sessions.

Your position with the school district is:
( ) special education teacher; ( ) resource room teacher; ( ) building administrator; ( ) district administrator; ( ) special education coordinator; ( ) speech teacher; ( ) other
Area(s) of exceptionality

Directions
Rate each subject area according to your interest in or need for training. A score of one (1) means little need or interest. A score of five (5) indicates great interest or critical need.

<table>
<thead>
<tr>
<th>INSERVICE TRAINING TOPICS</th>
<th>Need Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Organizing the classroom</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>2. Individualizing instruction</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>3. Understanding the legal responsibility of teachers</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>4. Understanding the document entitled Standards for the Administration of Special Education Programs</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>5. Incorporating career education into curriculum activities</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>6. Disseminating career education information</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>7. Using school and community resources</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>8. Teaching culturally different students</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>9. Designing units of instruction</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>10. Understanding educational research</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>11. Assisting with the development of programs to help exceptional students gain acceptance in the regular classroom</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>12. Assessing special students' instructional level and learning needs</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>13. Designing alternate teaching strategies for students with learning problems</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>14. Designing Individualized Education Programs (IEPs)</td>
<td>1 2 3 4 5</td>
</tr>
</tbody>
</table>
### INSERVICE TRAINING TOPICS

<table>
<thead>
<tr>
<th></th>
<th>Need Scale</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>15. Implementing individualized teaching strategies with help of resource personnel</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>16. Applying behavior management techniques that enhance positive interaction and facilitate learning for exceptional children</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>17. Understanding the multidisciplinary approach to assessment and programming</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>18. Working effectively with the multidisciplinary assessment team</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>19. Evaluating student progress and using data to revise programs</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>20. Using appropriate questioning techniques</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>21. Responding to &quot;coping&quot; behavior of students</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>22. Designing and using teacher-made tests</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>23. Developing and using instructional media (use of audiovisual aids)</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>24. Identifying goals and objectives appropriate to student needs</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>25. Planning to meet long-term and short-term goals</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>26. Planning activities and experiences logically (sequencing and task analysis)</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>27. Utilizing precision teaching and/or systematic instructional techniques</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>28. Building self-awareness and self-concept in students</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>29. Enlisting parent/home support in meeting educational and social goals for students</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>30. Organizing home study packets for vacation time and homebound students</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
</tbody>
</table>

**COMMENTS:** Please list other topics you believe should be addressed.

---

**A.** Please indicate the average amount of time you are involved in developing an IEP: 15-30 min.; 30-45 min.; 45-60 min.; 60-75 min.; more

**B.** Have you recently attended any inservice workshops in special education sponsored by the Nevada Department of Education? **yes; no.** If **yes,** was the training beneficial to you and the operation of your program? **yes; no**
## Inservice Priority Survey

**Authority for Data Collection:** Comprehensive System of Personnel Development. Public Law 94-142 1/21/80-1/26

**Planned Use of Data:** Planning inservice training activities during 1978-79.

### PART I: INSERVICE NEED CATEGORY

Instructions: Respond to each item below in the following manner:

First, indicate the number which best represents your perception of your own level of need with respect to the skills or competencies listed. The term "need" means your own perception of a discrepancy between the level of competence you believe you should have and the level of competence which you actually have. A "high need" indicates a large discrepancy, and thus a critical urgency to improve competencies in this area; a "low need" represents a minor discrepancy. For some of the areas listed, it may be that you perceive no discrepancy or need of this type. Use the following code in indicating your responses: 0 = No Need; 1 = Very Low Need; 2 = Low Need; 3 = Medium Need; 4 = High Need; and 5 = Very High Need.

Secondly, mark the items (or items) under each lettered category that you believe is an immediate "highest priority" target or objective for training, regardless of your overall rating of the category.

### 1. Assessment/Diagnostic Procedures

<table>
<thead>
<tr>
<th>Item Description</th>
<th>Need Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Instrument Development:</td>
<td></td>
</tr>
<tr>
<td>1. Developing basic skills assessment procedures</td>
<td>0 1 2 3 4 5</td>
</tr>
<tr>
<td>2. Developing informal instruments</td>
<td></td>
</tr>
<tr>
<td>3. Developing criterion-referenced instruments</td>
<td></td>
</tr>
<tr>
<td>4. Developing procedures for nondiscriminatory testing</td>
<td></td>
</tr>
<tr>
<td>5. Developing system for monitoring effectiveness of individualized programs (i.e. pupil progress)</td>
<td></td>
</tr>
<tr>
<td>6. Other (specify);</td>
<td></td>
</tr>
<tr>
<td>B. Instrument Utilization:</td>
<td></td>
</tr>
<tr>
<td>1. Using basic skills assessment procedures</td>
<td>0 1 2 3 4 5</td>
</tr>
<tr>
<td>2. Using informal instruments</td>
<td></td>
</tr>
<tr>
<td>3. Using criterion-referenced instruments</td>
<td></td>
</tr>
<tr>
<td>4. Using nondiscriminatory testing procedures</td>
<td></td>
</tr>
<tr>
<td>5. Using system for monitoring effectiveness of individualized programs (i.e., pupil progress)</td>
<td></td>
</tr>
<tr>
<td>6. Other (specify);</td>
<td></td>
</tr>
</tbody>
</table>

### 2. Individual Educational Plan (IEP)

<table>
<thead>
<tr>
<th>Item Description</th>
<th>Need Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. IEP Preparation:</td>
<td></td>
</tr>
<tr>
<td>1. Utilizing assessment information</td>
<td>0 1 2 3 4 5</td>
</tr>
<tr>
<td>2. Establishing annual goals</td>
<td></td>
</tr>
<tr>
<td>3. Writing short-term objectives</td>
<td></td>
</tr>
<tr>
<td>4. Other (specify);</td>
<td></td>
</tr>
<tr>
<td>B. Admission, Review, and Dismissal (ARD) Process:</td>
<td></td>
</tr>
<tr>
<td>1. Conducting a staffing (meeting)</td>
<td>0 1 2 3 4 5</td>
</tr>
<tr>
<td>2. Making placement decisions</td>
<td></td>
</tr>
<tr>
<td>3. Arranging for multi-agency collaboration</td>
<td></td>
</tr>
<tr>
<td>4. Other (specify);</td>
<td></td>
</tr>
<tr>
<td>C. IEP Implementation:</td>
<td></td>
</tr>
<tr>
<td>1. Implementing IEPs</td>
<td>0 1 2 3 4 5</td>
</tr>
<tr>
<td>2. Writing instructional plans based on IEPs</td>
<td></td>
</tr>
<tr>
<td>3. Monitoring IEPs</td>
<td></td>
</tr>
<tr>
<td>4. Other (specify);</td>
<td></td>
</tr>
</tbody>
</table>
### Instructional Programming

#### A. Defining Personal Roles
- 1. Role of classroom teacher
- 2. Role of resource teacher
- 3. Role of supportive personnel
- 4. Other (specify):

#### B. Organizing Resources
- 1. Translating IEP into instructional activities
- 2. Selecting appropriate curriculum and materials
- 3. Developing/adapting curriculum and materials
- 4. Working in multidisciplinary teams
- 5. Obtaining information on availability of resources
  - a. Secondary programs
  - b. Elementary programs
  - c. Early childhood programs
  - d. Pre-vocational programs
  - e. Career/vocational programs
- 6. Other (specify):

#### C. Individualizing Instruction
- 1. Analyzing learning tasks
- 2. Techniques in such areas of individualized instruction as:
  - a. Developing learner involvement
  - b. Differentiation of assessment
  - c. Pacing
  - d. Varying staffing patterns
  - e. Teaching strategies
  - f. Using materials
  - g. Developing materials
  - h. Developing learner objectives
  - i. Reporting pupil progress
- 6. Other (specify):

#### D. Classroom Management Skills
- 1. Developing classroom organizational skills of school personnel
- 2. Managing the self-contained classroom
- 3. Managing the teamed classroom
- 4. Classroom management using resource teacher

#### E. Parent Training Procedures
- 1. Understanding legal rights
- 2. Involving parents in educational programs
- 3. Other (specify):

#### F. Regulations
- 1. Implications/interpretations of the Education for All Handicapped Children Act (Public Law 94-142)
- 2. Overview of state and federal laws, regulations, and guidelines relating to general and special education
- 3. Due process responsibilities of special and regular education
- 4. Testing procedures
- 5. Knowledge of agencies mandated to assist in meeting needs of handicapped children
- 6. Other (specify):

---

**PART II: RESPONSIBILITY FOR THE COORDINATION OF IN-SERVICE PLANNING AND DELIVERY**

Instructions: Which should be primarily responsible for coordinating the planning and delivery of in-service training in each of the categories indicated below? Mark the appropriate column.

LDA = local education agency
TEA = Texas Education Agency
IEP = education service center
IDH = institution of higher education

<table>
<thead>
<tr>
<th>A. Assessment/Diagnostic Procedures</th>
<th>B. Individual Educational Plan (IEP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Instrument Development</td>
<td>1. IEP Preparation</td>
</tr>
<tr>
<td>2. Instrument Utilization</td>
<td>2. IEP Implementation</td>
</tr>
</tbody>
</table>

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**Notes:**
### PART III: RESPONDENT INFORMATION

**Professional Identification**  (Mark one)  (Note: The term "general education" is used here as a general term for special populations, vocational, or any other category besides special education. Please include the specific area you represent in the appropriate blank.)

1. Administrative: general education  
2. Building Principal: general education  
3. Instructional: general education  
4. Administrative: special education  
5. Instructional: special education  
6. Related Services: special education  
7. Supervisory: general education  
8. Supervisory: special education  
9. Professional Supportive: special education  
10. Paraprofessional: general education  
11. Paraprofessional: special education  
12. Paraprofessional: general education (administrative)  
13. College/University (administrative): general education  
15. College/University (administrative): special education  
16. College/University (instructional): special education  
17. Mosaic Administrative  
18. Mosaic Instructional  
19. Other (specify):

---

**C. Instructional Programming**

<table>
<thead>
<tr>
<th></th>
<th>LEA</th>
<th>ESC</th>
<th>TEA</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Defining Personal Roles</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Organizing Resources</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Individualizing Instruction</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Classroom Management Skills</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Parent Training Procedures</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

D. Other (specify):

E. Other (specify):
THE UNIVERSITY OF THE STATE OF NEW YORK  
NEW YORK STATE EDUCATION DEPARTMENT  
OFFICE FOR EDUCATION OF CHILDREN WITH HANDICAPPING CONDITIONS  
REGIONAL RESOURCE CENTER

School or Agency ____________________________  BOCES Area ____________________________

Years of Teaching Experience (including this year) ________ Name (Optional) ____________________________

Present Position Title: ___________________________________________________________

PART I

This school year I interacted with the following number of children in each of the following categories (i.e. Handicapping Conditions and Chronological Age). Please place specific number in appropriate box(es):

CHRONOLOGICAL AGE 0-2 3-5 6-8 9-12 13-18 19-

HANDICAPPING CONDITIONS

____ Severe ly Crippled  _______ Educable Mentally Retarded  _______ Blind
____ Physically Handicapped  _______ Severely Speech Impaired  _______ Multiply Handicapped
____ Severe ly Emotionally Disturbed  _______ Other Speech Impaired  _______ Learning Disabled
____ Emotionally Disturbed  _______ Deaf  _______ Deaf/Blind
____ Train able Mentally Retarded  _______ Hearing Impaired  _______ Other ______________________

PART II

Directions: The Bureau for Education of the Handicapped U.S. Office of Education, defines the Individualized Education Program process as including the following six steps. Number these steps in priority order 1 through 6 to indicate the areas in which you would like training.

1. Appraisal
   Assessment of the child to determine most appropriate program.

2. Development of the Educational Program
   Establishment of annual goals, instructional objectives, and specification of services.

3. Placement
   Make recommendations for placement and protect educational rights of parents and children.

4. Implementation of the Educational Program
   Selection of materials, methods and auxiliary services related in accomplishing instructional objectives.

5. Evaluation of Child Performance
   Determine child's progress in relation to instructional objectives, appropriateness of materials, methods and auxiliary services, and appropriateness of child's placement.

6. Review of the IEP process
   Determine appropriateness of individual IEP's and evaluate the IEP process.
Directions: Listed below are areas related to the provision of instruction for handicapped learners. First, indicate the importance of each by circling 1 if the area is very important, 2 if the area is important, 3 if the area is moderately important, and 4 if the area is low in importance. Circle 5 if you have no opinion. Second, indicate your knowledge in each area by circling 1 if your knowledge is very high, 2 if your knowledge is minimal, and 4 if you have no knowledge of the item. Circle 5 if you have no opinion.

1. Ability to differentiate between behavioral assessment and cognitive assessment.
2. Select appropriate assessment instruments.
3. Have skill in assessing cognitive abilities.
4. Have skill in assessing behavioral abilities.
5. Interpret the results of criterion referenced test data.
6. Interpret the results of norm referenced test data.
7. Use test results to determine learning style and operational style.
8. Use assessment results to develop educational prescriptions.
9. Determine priority areas of instruction.
10. Develop program goals.
11. Relate program goals to instructional objectives.
12. Develop instructional objectives.
13. Determine appropriate sequence of instruction.
14. Have skill in conferencing with parents to develop the IEP.
15. Know how to locate and gain access to available placement services in the community.
16. Have knowledge of local special education programs.
17. Understand eligibility requirements for special education programs.
18. Have knowledge of types of suitable placement alternatives.
19. Able to match appraisal information, recommend educational program and appropriate placement.
20. Have skill in conferencing with parents about appropriate placement and follow up.
21. Analyze and evaluate education programs and other services in specific placements.
22. Have knowledge of referral process for change in program placement.
23. Have knowledge of due process procedures.
24. Match instructional activities to instructional objectives.
25. Match instructional materials to instructional objectives.
26. Apply principles of learning to instruction.
27. Have knowledge of task analysis.
28. Use alternative instructional materials.
29. Construct appropriate instructional materials.
30. Apply techniques of behavior management.
31. Establish record keeping/management system.
32. Alter learning environment to accommodate student differences.
33. Work with parents and other support personnel involved in educating handicapped children.
34. Help handicapped students develop positive attitudes toward themselves.
35. Understand ongoing assessment of student performance.
36. Device reports of student progress.
37. Review program based on student progress.
38. Make recommendation to C.O.M. for future program placement.
39. Recognize a complete and appropriate IEP.
40. Determine the appropriateness of the IEP for each pupil.
41. Develop intervention strategies for improving inadequate IEP's when identified.
42. Know characteristics of an optional system-wide IEP Process.
43. Evaluate effectiveness of the IEP process (includes all of the preceding steps).
44. Develop intervention strategies for improving existing system-wide IEP Processes.
III (Fold and staple before returning).

PART IV
Indicate in space below training you would like to receive that has not yet been assessed on this form.

PART V
Indicate in space below specific information you would like to receive that has not yet been assessed on this form.
Area 1. SCREENING/EVALUATION, IEP DEVELOPMENT, PLACEMENT RECOMMENDATIONS, IMPLEMENTATION AND REVIEW PROCESS

Topic
A. Developing Child/Find Screening Programs
   - District responsibilities
   - Involvement of community agencies
   - Procedures/forms/timelines/follow-up/documentation
   - Referral for individual evaluation (district responsibilities/parents rights)

B. The Referral Process
   - Roles/responsibilities of:
     - District personnel (principals, counselors, teachers, related services) parents rights/responsibilities
     - Involvement of other community diagnostic agencies
     - District/parent responsibilities re: community agency referrals/recommendations

C. Individual Student Assessment Process
   - Roles/responsibilities of district diagnostic staff, RESC, Guidance Centers and Parents
   - Financial obligations/limitations of district and parents
   - Procedures/forms/timelines/follow-up/documentation
   - Non-biased, multi-sourced assessment/bilingual requirements
   - LD Identification procedures

D. The IEP Placement Process
   - Roles/responsibilities of:
     - District staff (principals, counselors, teachers, related services and support personnel)
     - Parents
     - RESC staff
     - Vo-Tech representatives (for secondary students)
     - Other agencies
   - Accurately interpreting student assessment/achievement data
   - Making appropriate decisions IEP placement based on student data
   - Skill training in writing IEP’s
   - Implementing the IEP
   - Selecting/matching instructional materials to IEP objectives
   - Modifying/adapting curriculum to IEP objectives
   - Secondary workstudy/vocational programming
   - Monitoring/documenting student progress
   - Conducting the annual IEP review

E. Procedural Safeguards
   - Confidentiality of information guidelines
   - Due Process Procedures
   - Least Restrictive Environment Considerations

F. District responsibilities for Serving Handicapped Students: 0-3, 4-10 and 10-21

G. District/parent responsibilities for transporting the Handicapped Student
   - State/federal regulations/policies/procedures for applying for state and federal reimbursement funds

H. Improving Communication Skills (teacher to teacher/teacher to parent)

I. LAE concept as a part of the "IEP process"

J. Non-Discrimination considerations in assigning grades and awarding diplomas to the Handicapped Student

K. Developing positive attitudes in normal children toward the Handicapped Child

L. Improving attitudes of adults toward the Handicapped Child

M. Other (list specific skill or knowledge training needs)
### PLEASE INDICATE YOUR PARENT RESPONSIBILITY CAPACITY

<table>
<thead>
<tr>
<th>Administrator</th>
<th>Related Services Personnel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Special</td>
<td>Diagnostic Staff</td>
</tr>
<tr>
<td>Regular</td>
<td>Psychometricist</td>
</tr>
<tr>
<td>Instructional Staff</td>
<td>School Psychologist</td>
</tr>
<tr>
<td>Regular Classroom Teacher</td>
<td>Audiologist</td>
</tr>
<tr>
<td>Ele. Sec.</td>
<td>Speech Therapist</td>
</tr>
<tr>
<td>Special Education Teacher</td>
<td>Physical Therapist</td>
</tr>
<tr>
<td>Ele. Sec.</td>
<td>Occupational Therapist</td>
</tr>
<tr>
<td>Physical Education Teacher</td>
<td>Other Medical Personnel Nurse</td>
</tr>
<tr>
<td>Ele. Sec.</td>
<td>Parent</td>
</tr>
<tr>
<td>Vo-Tech</td>
<td>Hearing Officer</td>
</tr>
<tr>
<td>Refer</td>
<td>Surrogate Parent</td>
</tr>
<tr>
<td>Counselor</td>
<td>Reading Teacher</td>
</tr>
</tbody>
</table>

### Area

#### II. PARENT INVOlVEMENT, COUNSELING AND TRAINING

<table>
<thead>
<tr>
<th>Topics</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. State Federal Special Services Requirements/Policies/Procedures</td>
</tr>
<tr>
<td>B. Information on Child Development/Parent Skill Training</td>
</tr>
<tr>
<td>C. Parents Rights/Responsibilities under 94-142 (written consent, participation)</td>
</tr>
<tr>
<td>In the IEP process, access to information, due process</td>
</tr>
<tr>
<td>D. Methods for identifying handicapped children at early ages</td>
</tr>
<tr>
<td>E. District responsibilities for serving handicapped children ages 0-3, 4-18 and 18-21</td>
</tr>
<tr>
<td>F. Establishing and Effectively using Parent Advisory Groups</td>
</tr>
<tr>
<td>G. Methods for Improving Parent/School Communication</td>
</tr>
<tr>
<td>H. Developing Joint Parent/School Projects</td>
</tr>
<tr>
<td>J. Transportation of the Handicapped: Regulations/Reimbursement Procedures</td>
</tr>
<tr>
<td>Other (List specific skill or knowledge training needs.)</td>
</tr>
</tbody>
</table>

#### III. SPECIAL SERVICES ADMINISTRATION

<table>
<thead>
<tr>
<th>Topics</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. State/federal regulations/policies/procedures/forms</td>
</tr>
<tr>
<td>B. Application/accountability for State/Federal special services funds</td>
</tr>
<tr>
<td>C. Special Services Program Development, monitoring and evaluation</td>
</tr>
<tr>
<td>D. Alternative Special Services Delivery Systems</td>
</tr>
<tr>
<td>E. Data Management (collection, analysis and dissemination)</td>
</tr>
<tr>
<td>F. Dropout Prevention</td>
</tr>
<tr>
<td>G. Personnel Management Training</td>
</tr>
<tr>
<td>H. Transportation of the Handicapped: (regulations/procedures/forms/reimbursement)</td>
</tr>
<tr>
<td>I. Federal Safeguards: LEA, Confidentiality of Information, Due Process, Parent Rights</td>
</tr>
<tr>
<td>J. Establishing LEA priorities for use of Special Services funds</td>
</tr>
<tr>
<td>K. Length of School Year/day/summer school for the handicapped</td>
</tr>
<tr>
<td>L. School count procedures/forms/timelines/confidentiality of Information</td>
</tr>
<tr>
<td>M. Roles of Vocational Schools in Programming for the Handicapped</td>
</tr>
<tr>
<td>N. Special Services Program Development, monitoring and evaluation</td>
</tr>
<tr>
<td>O. Fiscal Resources for Special Services</td>
</tr>
<tr>
<td>P. EDU-R District plans/applications, procedures/forms/timelines</td>
</tr>
<tr>
<td>Q. DUE On-Site review of Special Services - (Roles of State Department of Education and RESC)</td>
</tr>
<tr>
<td>R. LEA Responsibility for serving Handicapped 0-3, 4-16 and 18-21</td>
</tr>
<tr>
<td>S. Developing pre-school programs</td>
</tr>
<tr>
<td>T. Working effectively with bilingual/hispanic families</td>
</tr>
<tr>
<td>U. Improving school/parent communication</td>
</tr>
<tr>
<td>V. Effective use of parent groups</td>
</tr>
<tr>
<td>W. Staff development/Inservice training (CSPD)</td>
</tr>
<tr>
<td>X. SEA/LEA/DUE roles/responsibilities</td>
</tr>
<tr>
<td>Y. How to develop local CSPD training plans</td>
</tr>
<tr>
<td>Z. Where/how to apply for additional training funds (EDU-R, DUE, other)</td>
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#### IV. INCENTIVE (check preferences)

<table>
<thead>
<tr>
<th>Stipend (Academic Credit)</th>
<th>Tuition (Academic Credit)</th>
<th>Traverl/per diem/lodging</th>
<th>Released time (paid substitute)</th>
<th>1706 Staff Development points</th>
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<tbody>
<tr>
<td></td>
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### V. SCHEDULING

<table>
<thead>
<tr>
<th>Schedule</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>During school hours</td>
<td>On site</td>
</tr>
<tr>
<td>Weekday evenings</td>
<td>University</td>
</tr>
<tr>
<td>Summer workshops</td>
<td>Casper</td>
</tr>
</tbody>
</table>

### VI. LOCATION
APPENDIX D

Research Consultant Letter
19 December 1981

Dear Larry,

I tried to get ahold of you Friday afternoon to no avail. As regards your project, I've talked to a couple of people about the advisability of using machine coding on your Illinois project, and each person recommends against it for any kind of survey research. One fellow told of using this method and then having to correct at least 80% of his questionnaires because of inaccuracies introduced by the machines. Apparently, the method works well if there is an incentive to follow the answering instructions carefully, for example on an exam, but in survey research these incentives are removed.

Therefore it is my opinion that in the long run it would be best to use coders both from a time and cost viewpoint. I will be happy to discuss this further with you at the end of the month or early in January. I hope you have a pleasant holiday.

Susie Haller
APPENDIX E

Needs Assessment Instrument Field Test Materials
January 26, 1982

Dear Tester:

Thank you for agreeing to participate in the field testing of a needs assessment instrument developed by the Tri-State Midwest Regional Resource Center. Enclosed please find the following: Needs Assessment Instrument, Needs Assessment Instrument Evaluation Form, Authorization for Payment to Non-employees, and a forwarding envelope.

Your participation involves three activities:

First, please fill out the Needs Assessment Instrument from the perspective of your job category and your training needs. Be sure to time how long it takes to complete the instrument.

Second, fill out the Needs Assessment Instrument Evaluation Form which includes a rating of specific items and commenting on specific questions. Once received by the center, a telephone interview may follow.

Lastly, in order to receive your consultant fee of $50, please fill in your name, mailing address, social security number, and sign the bottom of the Authorization for Payment to Non-employees Form. Leave the remaining items blank.

Completion and forwarding of all three forms to me by would be greatly appreciated.

If there are any questions, please call me at the above number.

Thank you,

Bill Lee
Program Assistance Specialist

BL:mc

Enclosures:

Faculty for Exceptional Children
College of Education
School District Name

Instructions: Place an X in the appropriate space(s) below to indicate your position in the school program.

A. Instructional Staff:

- Regular Classroom Teacher Level: ___ Pre School ___ Elem. ___ Sec.
- Special Education Teacher Level: ___ Pre School ___ Elem. ___ Sec.

If Special Education, indicate students' classification.

- Cross Categorical
  - Educable Mentally Retarded
  - trainable Mentally Retarded
  - Visually Impaired
  - Behavior Disordered
  - Hearing Impaired
  - Deaf/Blind

- Severe/Profound Retarded
  - Orthopedically/Health Impaired
  - Learning Disabled
  - Educationally Handicapped
  - Multiple Handicapped
  - Other (Specify)________

B. Related Services Personnel:

- School Psychologist
- Speech/Language Clinician
- Physical Therapist
- Audiologist
- Occupational Therapist

- Medical Personnel
  - Teaching Aide
  - Adaptive Physical Education
  - Vocational/Industrial/Technical
  - Other (Specify)________

C. Parent/Guardian

D. Administrator

- Regular
- Special

E. Supervisor

Use of Data - Plan inservice training activities; report need areas to Illinois Department of Specialized Educational Services.

Instructions: Circle the number at the right of each main topic to indicate your need in that area.

1. Child Find/Referral.................................1 2 3 4 5
2. Classroom Management...........................1 2 3 4 5
3. Instructional Strategies..........................1 2 3 4 5
4. Communication Within School Setting.............1 2 3 4 5
5. Communication Outside School Setting.............1 2 3 4 5
6. Regulations/P.L. 94-142/Chapter 122 Ill. Revised Statute, Article 14...1 2 3 4 5
7. Special Services Administration (Administrators, Supervisors Only)....1 2 3 4 5
Instructions: In the space at the end of each line, check the items that are an immediate priority for training for you.

Child Find/Referral
1. Assess student abilities
2. Participate as a member of diagnostic teams
3. Understand the referral process
4. Understand/utilize non-biased, multi-factored assessment
5. District/parent responsibilities in the referral process

Classroom Management
6. Manage students' behavior in the classroom
7. Establish or maintain record keeping system
8. Apply behavior management techniques
9. Alter classroom environment for student differences
10. Schedule students' course work

Instructional Strategies
11. Develop instructional objectives
12. Match instructional materials to instructional objectives
13. Individualize instruction
14. Instructional strategies in subject areas. Specify

Communication Within School Setting
15. Communicate with other staff: Teacher, Administrator, Supervisor, Related Services Personnel
16. Develop positive attitudes in handicapped students toward themselves
17. Develop positive attitudes in normal children toward the handicapped
18. Develop positive attitudes in building staff toward the handicapped

Communication Outside School Setting
19. Communicate effectively with parents
20. I-rate attitudes of adults toward the handicapped child
21. Work effectively with bilingual/bicultural families
22. Establish and effectively use parent advisory groups
23. Implement parent training sessions
24. Communicate with student community services

Regulations/P.L. 94-142/H.R. 455
25. Understand/implement due process procedures
26. Understand/implement least restrictive environment requirements
27. Understand/implement Individualized Education Program requirements
28. Understand/implement confidentiality of information guidelines
29. Understand/implement protection in evaluation procedures
Special Services Administration (Administrators, Supervisors Only)

30. Supervise personnel..............................................................................................................................
31. Evaluate special education programs...................................................................................................
32. Understand funding of special education programs............................................................................
33. Plan services for handicapped children..............................................................................................

34. Indicate in the space below training you would like to receive that is not included on this form.

35. Comments: Use the space below to indicate any additional information regarding your responses.
NEEDS ASSESSMENT INSTRUMENT EVALUATION FORM

Date_____________________________

Name____________________________

Position/Title________________________

Telephone Number (for follow-up interview)__________________

Time (to complete instrument)_______________________________

I. Instructions - Circle your rating at each topic below:

<table>
<thead>
<tr>
<th>Topic</th>
<th>Low</th>
<th>Medium</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organization of Instrument</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Usefulness of Instrument</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Clarity of Instructions</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Completeness of Personal Data</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Completeness of Seven Main Topics</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Completeness of Subtopics</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

II. Please respond to all six questions in as much detail as you wish. Number responses to correspond with questions. Use the back of this sheet and, if necessary, additional paper.

1. What do you perceive as the purpose of the instrument?
2. How relevant are the seven main topics to your job category?
3. How relevant are the subtopics to your job category?
4. How might public school employees in your district react to the language, length, and scoring of the instrument?
5. What areas (e.g. design, scoring, instructions, etc.) need improvement? Why? How would you improve those areas?
6. Would this instrument be useful in determining inservice needs in your district?
APPENDIX F

Draft of Needs Assessment Instructions
STATE OF THE ART

The ideal needs assessment is considered to be one that generates the right information for decision-making. In addition, it is fast, inexpensive, and comprehensive. However, according to Kuh (1980), it is not yet known what works best in identifying various types of needs in different educational settings. Nonetheless, in reviewing the literature regarding needs assessment, certain points reflecting "good practice" were identified.

First, there appears to be a strong linkage between needs assessment and inservice training. Not only is the requirement for needs assessment clearly stated in the Federal Register (1977) under Comprehensive System of Personnel Development (121a. 382, 121a. 383), but many inservice training models (e.g., Project Interserv 1980, National Rural Project, 1980) include a provision for assessment of training needs. In addition, the Training Needs Assessment Task Force developed a monograph entitled Needs Assessment for Inservice Education: Building Local Programs (1980) to assist in increasing the capacity of educators to conduct needs assessment in order to gather information for effective inservice education programs.

Second, Kuh (1980) states that needs assessment works best when conducted on a relatively small scale. He suggests that, if there is a choice between district or building level needs assessment, the building based approach is preferable because the results would be more useful. Another plus to this approach is that linkage among teachers,
students, parents, and administrators is enhanced by personal interaction.

A third point of consideration is the need for collaborative planning in the needs assessment process. Mann (1980) suggests that planning should have the broad base involvement of administrators, teachers, and community members for maximum effectiveness. In special education, involvement should be extended to include other support personnel and related services. According to an Evaluation Training Consortium newsletter (1981), the trend toward collaboration seems an appropriate step for many programs. It cites several advantages: (1) it assists in gaining political support for the personnel preparation programs, (2) it brings together staff with common concerns who might otherwise not meet, and (3) many perspectives on training needs are taken into account. Collaboration among handicapped education instructional, support, administrative, and other personnel also would encompass the four groups most often included in state inservice training plans (Rube, 1978).

Analysis of data from the needs assessment process is a fourth point of discussion. Haller (1982) and other colleagues caution against using machine coding for survey research. In survey research there are no incentives for carefully following instructions. As a result, there is potential for a large number of inaccuracies made by respondents. Also Kuh (1980) states that in many cases elaborate statistical compilations are not necessary when using a survey questionnaire.

Davis (1980) points out that although computerized questionnaires make it possible to handle large amounts of data quickly, many people tend to react negatively because they feel their "real" needs will not be revealed. Further, when a needs assessor decides to use a questionnaire, some of the techniques that may enhance the credibility of the
questionnaire (e.g., personal administration), should be explored. A personalized approach to needs assessment is critical because it is a way of establishing trust. Mann (1980) states that trust is the guideline of the entire needs assessment process. If trust can be instituted among the participants, the perceived value, resources, and how needs assessment information will be used will not be viewed out of proportion.

Lastly, the Training Needs Assessment Task Force found two common points of successful needs assessment processes: (1) the involvement of local personnel for needs assessment and (2) a flexible and continuous assessment effort.

Although the state of the art in needs assessment has yet to be developed, this brief review of relevant literature should assist staff development teams in the development and implementation of a needs assessment that accurately identifies training needs.
NEEDS ASSESSMENT PROCESS

Introduction
The needs assessment process model was developed with flexibility in mind and is based on the premise that effective assessment of need requires a system that involves both written and verbal interaction among the participants. The model uses a branching system in which information flows downward from the organizational body (facilitating team) to respondents in each job category by members of the organizational body (facilitators). Assessed needs are transmitted from respondents to facilitators for summarization, and then, to the facilitating team. (See Appendix A).

The procedures outlined for each step can be modified to accommodate implementation in small districts as well as those with large student and personnel populations. Any modifications should be determined by the district's needs assessment facilitating team.

Step 1
Essential personnel for the needs assessment include a person to manage the process (needs assessment team leader), members of a team to plan and implement the needs assessment activities, and the respondents from each job category. A job category pertains to the five positions identified on the front page of the instrument, i.e., regular classroom teacher, special education teacher, related services personnel, parent/guardian, regular or special administrator and supervisor. A district
may choose to include positions under special education teacher and related services personnel as job categories when there is a significant number of respondents from specific positions.

Many needs assessment experts suggest that a planning or facilitating team be developed to assist in the assessment. The needs assessment team leader in charge of the needs assessment is responsible for developing the facilitating team. Each member of the team is assigned the title of facilitator. The team's responsibility is coordination, dissemination, data collection and summarization, and reporting activities as outlined in other steps. The team should be comprised of personnel who will represent each job category that will participate in the assessment. Efforts should be made to keep the team at a manageable size, i.e., six to ten members including the team leader.

Example - District A - Team Size - 6

In this district the team includes the needs assessment team leader and five facilitators. Each facilitator represents one of the following job categories: regular education teachers, special education teachers, related services personnel, parents, administrators and supervisors.

Larger districts may need additional personnel who are not members of the facilitating team but, because of the number of respondents, will assist the facilitator in implementation activities.

The team leader is responsible for choosing team facilitators. Each facilitator should have professional linkage with the group to be surveyed. For example, a principal may be chosen as facilitator to coordinate survey activities for regular classroom teachers.
Step 2

The facilitating team decides whether to implement the developed instrument or to use the developed instrument as a model to construct an instrument that is district-specific. If the later is chosen, the identification data, the rating of the seven main topics, and space for needs not assessed and comments should be identical to that on the developed instrument. The subtopic needs under each main topic, however may be deleted, substituted, added to, and so on, to address district-specific concerns.

Step 3

Limiting the sample size of respondents in each job category is an important consideration for two reasons. First, this limitation assists in controlling data flow; and second, it keeps summarization of data to manageable task for each facilitator. Based on field test activities and input from research consultants, summarization responsibilities for each facilitator should be limited to twenty (20) respondents.

Districts, however, may choose to use a larger sample size but, by doing so, should assign other personnel to assist the facilitator.

Step 4

Determination of timelines depend on the size of the facilitating team, the size of the district, and the number of respondents. This decision is the responsibility of the facilitating team. Field test results indicated that the average time to complete the instrument was thirty-five (35) minutes. Also, summarization of data for thirteen respondents was completed in twenty (20) minutes.
Step 5

The key component of the process is the strategy used to disseminate the instrument and collect and summarize the data.

Each facilitator is responsible for disseminating the instrument to the assigned job category. The facilitator should meet with each respondent in a large group meeting, small group meetings or individually. During the meeting the purpose of the needs assessment is discussed and the instrument is distributed, completed, and then collected. Each facilitator should explain that the participants' responses will be summarized and presented to the needs assessment facilitating team.

Example - District A - Team Size - 6

The facilitator representing related services is the coordinator of school psychologists. The team has determined that six school psychologists, two speech clinicians, two physical therapists, two teaching aides, and one adaptive physical education teacher will comprise the respondents in the related services job category. The facilitator schedules a meeting of all 13 respondents to complete the instrument. The team has also decided that, for summarization purposes, the data will be summarized as one job category.

In a larger district the facilitator may need assistance in the dissemination, collection, and summarization activities.

Example - District B - Team Size - 7

The coordinator of school psychologists is the facilitator representing related services. The team has determined that ten school psychologists, ten speech clinicians, 15 teaching aides, ten physical therapists, and ten adaptive physical education teachers will comprise
the respondents in this category. In this case, the facilitator will coordinate activities for the school psychologists and teaching aides. Assistance will be requested from the coordinator of speech services to implement activities for the speech clinicians, and the coordinator of adaptive physical education to implement activities for physical therapists and adaptive physical education teachers. The team has decided that, for summarization purposes, the results from school psychologists, teaching aides, speech clinicians, physical therapists, and adaptive physical education teachers will be summarized separately. (Each is considered a job category.)

Step 6 - Summarization

Summarizing the needs assessment results requires two steps. Step 6 involves the transfer of results to a summary sheet. Step 7 involves the graphic illustration of those results.

Once the completed instruments are collected, the facilitator must summarize the information. A white machine copy of the needs assessment instrument should be used as the summary sheet. One summary sheet should be completed for each specific job category group. Summarization activities may vary according to the decisions made by the facilitating team. For example, in a small district (See District A, Step 5) related services is identified as one job category. One summary sheet for related services is then completed. In another district (See District B, Step 5) a summary sheet is completed for each identified category under related services.

6.1 The first step is to total the number of respondents from categories A, B, C, D, E, and/or F. The spaces under OFFICE USE ONLY are used
to indicate totals. Add each category and place the number in the blank space marked TOTAL.

Example - District A (See Appendix B).

On job category summary sheet an "x" is placed in the space next to school psychologist, physical therapist, speech/language clinician, teaching aide, and adaptive physical education teacher. The number for each group is placed in the corresponding space under OFFICE USE ONLY. The total number of respondents is then placed in the space marked total.

Example - District B

The same procedures are used and a separate job category summary sheet is also filled out for school psychologists, speech language clinicians, teaching aides, physical therapists, and adaptive physical education teachers.

6.2 The second step involves summarizing the information for the seven main topics. (Please Note - since only supervisors and administrators respond to Main Topic 7, most facilitators will be summarizing only the first six Main Topics.) First, total all the ratings for each main topic and place each number in the corresponding space. Next, divide each total by the number of respondents (6.1) to get the average. Place the average in the appropriate space after each main topic under AVERAGE.

Example - District A (See Appendix C).

For Main Topic 1 (Child Find/Referral) the total rating number summed to 52. This number is placed in the space under TOTAL. Fifty-two (52) is then divided by 13 (the number of respondents) for an
average of four (4). This number is placed in the space under AVERAGE.

For Main Topic 2 (Classroom Management) the total rating number summed to 30. This number is placed in the space under TOTAL. Thirty (30) is then divided by 13 for an average of 2.3. This number is placed in the space under AVERAGE.

Each main topic is summarized in the same manner.

6.3 The third step is to summarize subtopic information, i.e., items 1 - 33 inclusive. To complete this, total the number of respondents who checked each subtopic and place that number in the corresponding space.

Example - District A (See Appendix C).

Of the 13 respondents in the related services job category, ten (10) checked "assess student abilities" as a priority for training. That number is then placed in the corresponding space at the end of the item. Three (3) respondents checked "participate as a member of diagnostic teams." That number is also placed in the corresponding space at the end of the item. Each subtopic is summarized in the same manner.

6.4 The last step is to tabulate the data for items 34 and 35. Place the total number of individuals who responded to each item in the corresponding blank spaces. In the event of a high percentage of responses in either of those areas, further investigation into the specific responses may be necessary.

Step 7

This step involves graphing the results of the needs assessment on the NEEDS ASSESSMENT SUMMARY SHEET. First, fill the blank space marked
NUMBER OF RESPONDENTS. Next, determine the percent of response for each subtopic by dividing the total number of checks for each subtopic by the total number of respondents, then, graph the percent on the appropriate chart in line with the subtopic number.

Example - District A (See Appendix D).

Of the 13 respondents from related services, ten (10) checked "assess student abilities" and three (3) checked "participate as a member of diagnostic teams" as priorities for training. As a result, the percent of response for subtopic #1 is 77% (10 checks divided by 13 respondents) and for subtopic #2 23% (3 checks divided by 13 respondents). The percent is recorded on the graph at the point where the approximate percent and subtopic number intersect.

Each remaining subtopic percent is determined and recorded in the same manner.

The charts can be used to depict district results or specific job category results. For district results, the total number of respondents district-wide is used to derive the percent of response for each subtopic. Each graph will represent district needs. Another option is to use the charts to illustrate specific job category results. In this instance, the number of respondents for the specific job category is used to derive the percent of response for each subtopic. The charts will then represent specific job category needs.

Step 8

Once each facilitator has summarized the data for the specific job category, a meeting of the entire team should be scheduled. During this meeting, results from each job category should be shared. This
data may be used to establish training priorities and should also be used in conjunction with other information (e.g., district educational goals, district policy, etc.). When analyzing data, it is important to consider the following points: (1) Keep in mind the limitations of the needs assessment process used. For example, the process described in this report is not highly statistical; the intent is to provide an estimate of the needs of personnel. (2) Check for confirmation and consistency with other available information. For example, if special education teachers (EMR) indicate a need in the area of instructional strategies, other information may be considered. What are the results of standardized tests for this student population? What are the results of teacher evaluations in this area? (3) Know when decisions should be made. Any and all data are to some degree inconclusive; therefore, the team will not always be 100% certain of a decision. However, when a level of certainty is reached in which the team is willing to defend, a decision should be made.
ORGANIZATIONAL CHART

Team Leader

Facilitating Team*

Decision-Making

Facilitators*

Survey Groups

Dissemination

Data Collection

Summarization

Assistant Superintendent

Supervisor School Psych.

Principal

Coordinator Special Ed.

Coordinator Pupil Personnel Services

Administrators

Related Services

Teachers

Special Ed. Teachers

Supervisors Parents
APPENDIX G

Needs Assessment Model
Needs Assessment Instructions For Inservice Training
NEED ASSESSMENT PROCESS MODEL
FOR INSERVICE TRAINING
SEPTEMBER 1982

Developed by the Tri-State Midwest Regional Resource Center in cooperation with the Illinois State Board of Education, Department of Specialized Educational Services

Department of Specialized Educational Services
Joseph E. Fisher
Gloria Calovini
Jack Shook
Charles Crowley

Tri-State Midwest Regional Resource Center
Larry A. Magliocca, Ph.D.
William Lee

"This product has been funded at least in part, with federal funds from the Department of Education under Contract No. 300800715. The contents of this publication do not necessarily reflect the views or policies of the Department of Education, nor does mention of trade names, commercial products, or organization imply endorsement by the U.S. Government."
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<thead>
<tr>
<th>Table of Contents</th>
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<td>A. State of the Art</td>
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<tr>
<td>II. Needs Assessment Instructions</td>
</tr>
<tr>
<td>A. Introduction</td>
</tr>
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<td>B. Steps 1 - 8</td>
</tr>
<tr>
<td>III. Bibliography</td>
</tr>
<tr>
<td>IV. Appendices</td>
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</tbody>
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students, parents, and administrators is enhanced by personal interaction. A third point of consideration is the need for collaborative planning in the needs assessment process. Mann (1980) suggests that planning should have the broad base involvement of administrators, teachers, and community members for maximum effectiveness. In special education, involvement should be extended to include other support personnel and related services. According to an Evaluation Training Consortium newsletter (1981), the trend toward collaboration seems an appropriate step for many programs. It cites several advantages: (1) it assists in gaining political support for the personnel preparation programs, (2) it brings together staff with common concerns who might otherwise not meet, and (3) many perspectives on training needs are taken into account. Collaboration among handicapped education instructional, support, administrative, and other personnel also would encompass the four groups most often included in state inservice training plans (Rube, 1978).

Analysis of data from the needs assessment process is a fourth point of discussion. Haller (1982) and other colleagues caution against using machine coding for survey research. In survey research there are no incentives for carefully following instructions. As a result, there is potential for a large number of inaccuracies made by respondents. Also Kuh (1980) states that in many cases elaborate statistical compilations are not necessary when using a survey questionnaire.

Davis (1980) points out that although computerized questionnaires make it possible to handle large amounts of data quickly, many people tend to react negatively because they feel their "real" needs will not be revealed. Further, when a needs assessor decides to use a questionnaire, some of the techniques that may enhance the credibility of the
questionnaire (e.g., personal administration), should be explored. A personalized approach to needs assessment is critical because it is a way of establishing trust. Hann (1980) states that trust is the guideline of the entire needs assessment process. If trust can be instituted among the participants, the perceived value, resources, and how needs assessment information will be used will not be viewed out of proportion.

Lastly, the Training Needs Assessment Task Force found two common points of successful needs assessment processes: (1) the involvement of local personnel for needs assessment and (2) a flexible and continuous assessment effort.

Although the state of the art in needs assessment has yet to be developed, this brief review of relevant literature should assist staff development teams in the development and implementation of a needs assessment that accurately identifies training needs.
NEEDS ASSESSMENT PROCESS

Introduction

The needs assessment process model was developed with flexibility in mind and is based on the premise that effective assessment of need requires a system that involves both written and verbal interaction among the participants. The model uses a branching system in which information flows downward from the organizational body (facilitating team) to respondents in each job category by members of the organizational body (facilitators). Assessed needs are transmitted from respondents to facilitators for summarization, and then, to the facilitating team. (See Appendix A).

The procedures outlined for each step can be modified to accommodate implementation in small districts as well as those with large student and personnel populations. Any modifications should be determined by the district's needs assessment facilitating team.

Step 1

Essential personnel for the needs assessment include a person to manage the process (needs assessment team leader), members of a team to plan and implement the needs assessment activities, and the respondents from each job category. A job category pertains to the five positions identified on the front page of the instrument, i.e., regular classroom teacher, special education teacher, related services personnel, parent/guardian, regular or special administrator and supervisor. A district
may choose to include positions under special education teacher and related services personnel as job categories when there is a significant number of respondents from specific positions.

Many needs assessment experts suggest that a planning or facilitating team be developed to assist in the assessment. The needs assessment team leader in charge of the needs assessment is responsible for developing the facilitating team. Each member of the team is assigned the title of facilitator. The team’s responsibility is coordination, dissemination, data collection and summarization, and reporting activities as outlined in other steps. The team should be comprised of personnel who will represent each job category that will participate in the assessment. Efforts should be made to keep the team at a manageable size, i.e., six to ten members including the team leader.

Example - District A - Team Size - 6

In this district the team includes the needs assessment team leader and five facilitators. Each facilitator represents one of the following job categories: regular education teachers, special education teachers, related services personnel, parents, administrators and supervisors.

Larger districts may need additional personnel who are not members of the facilitating team but, because of the number of respondents, will assist the facilitator in implementation activities.

The team leader is responsible for choosing team facilitators. Each facilitator should have professional linkage with the group to be surveyed. For example, a principal may be chosen as facilitator to coordinate survey activities for regular classroom teachers.
Step 2

The facilitating team decides whether to implement the developed instrument or to use the developed instrument as a model to construct an instrument that is district-specific. If the later is chosen, the identification data, the rating of the seven main topics, and space for needs not assessed and comments should be identical to that on the developed instrument. The subtopic needs under each main topic, however may be deleted, substituted, added to, and so on, to address district-specific concerns.

Step 3

Limiting the sample size of respondents in each job category is an important consideration for two reasons. First, this limitation assists in controlling data flow; and second, it keeps summarization of data to manageable task for each facilitator. Based on field test activities and input from research consultants, summarization responsibilities for each facilitator should be limited to twenty (20) respondents.

Districts, however, may choose to use a larger sample size but, by doing so, should assign other personnel to assist the facilitator.

Step 4

Determination of timelines depend on the size of the facilitating team, the size of the district, and the number of respondents. This decision is the responsibility of the facilitating team. Field test results indicated that the average time to complete the instrument was thirty-five (35) minutes. Also, summarization of data for thirteen respondents was completed in twenty (20) minutes.
Step 5

The key component of the process is the strategy used to disseminate the instrument and collect and summarize the data.

Each facilitator is responsible for disseminating the instrument to the assigned job category. The facilitator should meet with each respondent in a large group meeting, small group meetings or individually. During the meeting the purpose of the needs assessment is discussed and the instrument is distributed, completed, and then collected. Each facilitator should explain that the participants' responses will be summarized and presented to the needs assessment facilitating team.

Example - District A - Team Size - 6

The facilitator representing related services is the coordinator of school psychologists. The team has determined that six school psychologists, two speech clinicians, two physical therapists, two teaching aides, and one adaptive physical education teacher will comprise the respondents in the related services job category. The facilitator schedules a meeting of all 13 respondents to complete the instrument. The team has also decided that, for summarization purposes, the data will be summarized as one job category.

In a larger district the facilitator may need assistance in the dissemination, collection, and summarization activities.

Example - District B - Team Size - 7

The coordinator of school psychologists is the facilitator representing related services. The team has determined that ten school psychologists, ten speech clinicians, 15 teaching aides, ten physical therapists, and ten adaptive physical education teachers will comprise
the respondents in this category. In this case, the facilitator will coordinate activities for the school psychologists and teaching aides. Assistance will be requested from the coordinator of speech services to implement activities for the speech clinicians, and the coordinator of adaptive physical education to implement activities for physical therapists and adaptive physical education teachers. The team has decided that, for summarization purposes, the results from school psychologists, teaching aides, speech clinicians, physical therapists, and adaptive physical education teachers will be summarized separately. (Each is considered a job category.)

Step 6 - Summarization

Summarizing the needs assessment results requires two steps. Step 6 involves the transfer of results to a summary sheet. Step 7 involves the graphic illustration of those results.

Once the completed instruments are collected, the facilitator must summarize the information. A white machine copy of the needs assessment instrument should be used as the summary sheet. One summary sheet should be completed for each specific job category group. Summarization activities may vary according to the decisions made by the facilitating team. For example, in a small district (See District A, Step 5) related services is identified as one job category. One summary sheet for related services is then completed. In another district (See District B, Step 5) a summary sheet is completed for each identified category under related services.

6.1 The first step is to total the number of respondents from categories A, B, C, D, E, and/or F. The spaces under OFFICE USE ONLY are used
to indicate totals. Add each category and place the number in the blank space marked TOTAL.

Example - District A (See Appendix B).

On job category summary sheet an "x" is placed in the space next to school psychologist, physical therapist, speech/language clinician, teaching aide, and adaptive physical education teacher. The number for each group is placed in the corresponding space under OFFICE USE ONLY. The total number of respondents is then placed in the space marked total.

Example - District B

The same procedures are used and a separate job category summary sheet is also filled out for school psychologists, speech language clinicians, teaching aides, physical therapists, and adaptive physical education teachers.

6.2 The second step involves summarizing the information for the seven main topics. (Please Note - since only supervisors and administrators respond to Main Topic 7, most facilitators will be summarizing only the first six Main Topics.) First, total all the ratings for each main topic and place each number in the corresponding space. Next, divide each total by the number of respondents (6.1) to get the average. Place the average in the appropriate space after each main topic under AVERAGE.

Example - District A (See Appendix C).

For Main Topic 1 (Child Find/Referral) the total rating number summed to 52. This number is placed in the space under TOTAL. Fifty-two (52) is then divided by 13 (the number of respondents) for an
average of four (4). This number is placed in the space under AVERAGE.

For Main Topic 2 (Classroom Management) the total rating number summed to 30. This number is placed in the space under TOTAL. Thirty (30) is then divided by 13 for an average of 2.3. This number is placed in the space under AVERAGE.

Each main topic is summarized in the same manner.

6.3 The third step is to summarize subtopic information, i.e., items 1 - 33 inclusive. To complete this, total the number of respondents who checked each subtopic and place that number in the corresponding space.

Example - District A (See Appendix C).

Of the 13 respondents in the related services job category, ten (10) checked "assess student abilities" as a priority for training. That number is then placed in the corresponding space at the end of the item. Three (3) respondents checked "participate as a member of diagnostic teams." That number is also placed in the corresponding space at the end of the item. Each subtopic is summarized in the same manner.

6.4 The last step is to tabulate the data for items 34 and 35. Place the total number of individuals who responded to each item in the corresponding blank spaces. In the event of a high percentage of responses in either of those areas, further investigation into the specific responses may be necessary.

Step 7

This step involves graphing the results of the needs assessment on the NEEDS ASSESSMENT SUMMARY SHEET. First, fill the blank space marked
NUMBER OF RESPONDENTS. Next, determine the percent of response for each subtopic by dividing the total number of checks for each subtopic by the total number of respondents, then, graph the percent on the appropriate chart in line with the subtopic number.

Example - District A (See Appendix D).

Of the 13 respondents from related services, ten (10) checked "assess student abilities" and three (3) checked "participate as a member of diagnostic teams" as priorities for training. As a result, the percent of response for subtopic #1 is 77% (10 checks divided by 13 respondents) and for subtopic #2 23% (3 checks divided by 13 respondents). The percent is recorded on the graph at the point where the approximate percent and subtopic number intersect.

Each remaining subtopic percent is determined and recorded in the same manner.

The charts can be used to depict district results or specific job category results. For district results, the total number of respondents district-wide is used to derive the percent of response for each subtopic. Each graph will represent district needs. Another option is to use the charts to illustrate specific job category results. In this instance, the number of respondents for the specific job category is used to derive the percent of response for each subtopic. The charts will then represent specific job category needs.

Step 8

Once each facilitator has summarized the data for the specific job category, a meeting of the entire team should be scheduled. During this meeting, results from each job category should be shared. This
data may be used to establish training priorities and should also be used in conjunction with other information (e.g., district educational goals, district policy, etc.). When analyzing data, it is important to consider the following points: (1) Keep in mind the limitations of the needs assessment process used. For example, the process described in this report is not highly statistical; the intent is to provide an estimate of the needs of personnel. (2) Check for confirmation and consistency with other available information. For example, if special education teachers (EMR) indicate a need in the area of instructional strategies, other information may be considered. What are the results of standardized tests for this student population? What are the results of teacher evaluations in this area? (3) Know when decisions should be made. Any and all data are to some degree inconclusive; therefore, the team will not always be 100% certain of a decision. However, when a level of certainty is reached in which the team is willing to defend, a decision should be made.
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Project Interserv. Attleboro School Department, Attleboro, Massachusetts, 1980.


Needs Assessment Team Leader: A set of instructions is listed on page 4 of this instrument.

NEEDS ASSESSMENT FOR INSERVICE TRAINING

Joint Agreement/Cooperative Name  KYSOT CENTRAL
School District Name  DISTRICT A
Name of School
County Name  WASHINGTON

Place an X in the appropriate space(s) to indicate your position in the school program.

<table>
<thead>
<tr>
<th>Position</th>
<th>Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Regular Classroom Teacher</td>
<td>Preschool</td>
</tr>
<tr>
<td>B. Special Education Teacher</td>
<td>Preschool</td>
</tr>
</tbody>
</table>

If Special Education, indicate students' classification.

- Cross Categorical
- Educable Mentally Retarded
- Trainable Mentally Retarded
- Visually Impaired
- Behavior Disordered
- Hearing Impaired
- Deaf-Blind
- Severe/Profound Mentally Retarded
- Orthopedically/Health Impaired
- Learning Disabled
- Educationally Handicapped
- Multihandicapped
- Other (Specify)

C. Related Services Personnel

- School Psychologist
- Speech/Language Clinician
- Physical Therapist
- Audiologist
- Occupational Therapist
- School Nurse
- Teaching Aide
- Adaptive Physical Education
- Vocational/Industrial/Technical
- Social Worker
- Guidance Counselor
- Other (Specify)

D. Parent/Guardian

E. Administrator - Special
   Administrator - Regular

F. Supervisor - Special
   Supervisor - Regular

OFFICE USE ONLY

TOTAL 13
Appendix C

Circle the number at the right of each main topic to indicate your need in that area.

<table>
<thead>
<tr>
<th>Main Topic Area</th>
<th>Low Need</th>
<th>High Need</th>
<th>TOTAL AVERAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Child Find/Referral</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>II. Classroom Management</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>III. Instructional Strategies</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IV. Communication Within School Setting</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>V. Communication Outside School Setting</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>VI. Regulations/PL 94-142/Chapter 122 III. Revised Statute, Article 14</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>VII. Special Services Administration (Administrators, Supervisors Only)</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In the space at the end of each line, check no more than two (2) subtopics that are an immediate priority for training in each main topic area.

I. Child Find/Referral

1. Assess student abilities..................................................................................................................
2. Participate as a member of diagnostic teams ....................................................................................
3. Understand the referral process........................................................................................................
4. Understand/utilize non-biased, multi-factored assessment............................................................
5. Understand district/parent responsibilities in the referral process.............................................

II. Classroom Management

6. Manage students' behavior in the classroom .....................................................................................
7. Establish or maintain record keeping system .....................................................................................
8. Apply behavior management techniques .............................................................................................
9. Alter classroom environment for student differences .........................................................................
10. Schedule students' course work ........................................................................................................

III. Instructional Strategies

11. Develop instructional objectives ....................................................................................................
12. Match instructional materials to instructional objectives ..............................................................
13. Individualize instruction....................................................................................................................
14. Develop instructional strategies in subject areas. Specify ..............................................................

IV. Communication Within School Setting

15. Communicate with other staff: Teacher............................................................................................
   15.1 Administrator.............................................................................................................................
   15.2 Supervisor..................................................................................................................................
   15.3 Related Service Personnel..........................................................................................................
16. Develop positive attitudes in handicapped students toward themselves ......................................
17. Develop positive attitudes in normal children toward the handicapped ....................................
18. Develop positive attitudes in building staff toward the handicapped ...........................................

OFFICE USE ONLY

TOTAL AVERAGE

<table>
<thead>
<tr>
<th>Low Need</th>
<th>High Need</th>
<th>TOTAL AVERAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5</td>
<td></td>
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<tr>
<td>1 2 3 4 5</td>
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<tr>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

16
NEEDS ASSESSMENT SUMMARY SHEET

Appendix D
School Year 1982

Joint Agreement/Cooperative Name  
WEST CENTRAL

School District Name  
DISTRICT A

RECORDING INSTRUCTIONS — Use the charts below to summarize needs assessments results. To determine the percent of response for each subtopic, divide the total number of checks for each subtopic by the total number of respondents. Next, graph each subtopic percent on the appropriate chart. The charts can be used to depict district results or specific job category results.

Number of Respondents 13

<table>
<thead>
<tr>
<th>Subtopics</th>
<th>Percent of Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>90</td>
</tr>
<tr>
<td>80</td>
<td>70</td>
</tr>
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<td>60</td>
<td>50</td>
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<tr>
<td>40</td>
<td>30</td>
</tr>
<tr>
<td>20</td>
<td>10</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Subtopics</th>
<th>Percent of Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>12</td>
</tr>
<tr>
<td>13</td>
<td>14</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Subtopics</th>
<th>Percent of Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>15.1</td>
</tr>
<tr>
<td>15.2</td>
<td>15.3</td>
</tr>
<tr>
<td>16</td>
<td>17</td>
</tr>
<tr>
<td>18</td>
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</table>

<table>
<thead>
<tr>
<th>Subtopics</th>
<th>Percent of Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>17</td>
<td>18</td>
</tr>
</tbody>
</table>

Instructional Strategies

<table>
<thead>
<tr>
<th>Subtopics</th>
<th>Percent of Response</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tr>
<tr>
<td></td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>14</td>
</tr>
</tbody>
</table>

Classroom Management

<table>
<thead>
<tr>
<th>Subtopics</th>
<th>Percent of Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>12</td>
</tr>
<tr>
<td>13</td>
<td>14</td>
</tr>
</tbody>
</table>

Communication Within School Setting

<table>
<thead>
<tr>
<th>Subtopics</th>
<th>Percent of Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
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<tr>
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</tr>
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<table>
<thead>
<tr>
<th>Subtopics</th>
<th>Percent of Response</th>
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</thead>
<tbody>
<tr>
<td>17</td>
<td>18</td>
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</tbody>
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