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AN EVALUATION OF A FUNCTIONAL IN-SERVICE TRAINING MODEL FOR SPECIAL EDUCATION

DISSERTATION

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

By

Thom L. Cooper, B.A., M.Ed.

* * * * * *

The Ohio State University
1975

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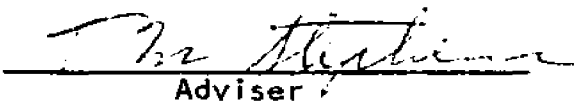

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Gratitude is also expressed to those who have been instrumental in implementing the training model over the past several summers. Two of those who have been instrumental in this regard are Mr. Ronald Boley and Mrs. Judy Finnegan. Mr. Boley was a key supporter of the training model from its inception and was personally responsible for the initial implementation of Precision Speech Module. Mrs. Finnegan also has been involved with the training from its inception and more than anyone else has been responsible for its growth and expansion. It would be impossible to personally recognize all of the other people who have helped implement the training model, however their support and cooperation is sincerely appreciated.

Finally, I wish to express appreciation to my wife, Noelle. Her steadfast devotion and emotional support throughout the period of the dissertation has been a major factor in allowing me to complete the study.

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CHAPTER 1

Statement of the Problem

The purpose of this study is to provide a synthesis for over five years of applied research and development concerning the development, implementation, and evaluation of a model for in-service training of special educators. The training model is an extension of an earlier training model, termed "Breakthrough," developed by Stephens[1] in cooperation with the Ohio Department of Education, Division of Special Education. The model was implemented by the author and others under the direction of Dr. Stephens, in eight separate summer training institutes which occurred during the five summers from 1970 to 1974. During that period, the research was supported through several different grants through the Ohio Department of Education, Division of Special Education and the U.S. Office of Education, Bureau of Education for the Handicapped.

Over the past five years the in-service workshops have all been based in the Columbus area and have largely served special educators from the Central Ohio area. However, future plans and funding for the next two summers include expansion over a statewide area with workshops in several locations as well as one workshop in the Pittsburgh area in

[1]This information was obtained through personal communication with Mr. S.J. Bonham, Director, Division of Special Education, Ohio Department of Education.

cooperation with the University of Pittsburgh and the Allegheny County Schools. In addition to this expansion of areas, an expansion has also occurred in the number and variety of training sessions being offered. Summer in-service workshops now include such topics as applied supervision, precision speech techniques, and applied language techniques; all of which have been developed under the guidelines described by the author.

Because of the nature of the historical development of the in-service workshops, there was no attempt to synthesize the material. A synthesis can provide direction for future in-service training and delineate possible future research questions for a more rigorous workshop evaluation. The present research takes the form of a "field study." Specifically, the study attempts to synthesize existing in-service training materials, evaluation reports, and other documents concerning the training model. These reports and documents are then related to other training models and in-service trends which have been reported in the literature. An attempt is made to answer the following research questions:

1. What inadequacies have appeared in the original in-service training model as a result of field testing?
2. Has the current in-service training workshop been effective in terms of:
    a. direct and indirect improvement of teacher performance within the workshop setting?
    b. efficient use of training time?
    c. developing positive attitudes in those enrolled in the workshop?

3. How is the current in-service training model of the author similar and dissimilar to other in-service training models and how should it be improved?
4. How can the current in-service evaluation techniques be improved?
5. What are some likely future trends in in-service training and how does this in-service model relate to them?
6. What formal research questions need to be answered in order to provide validity and give wider acceptance of the workshop model?

The study attempts to answer the above questions in four chapters which are organized as follows:

Chapter 1. The In-service Training Model

- A. Statement of the problem
- B. The evolution of the current in-service training model.
- C. A description of the original training model.

Chapter II. Review of the Literature

- A. The need for in-service training.
- B. The evolution of in-service training.

Chapter III. Implementation of the In-service Training Model

- A. A description of the original in-service training model
- B. A description of the additions and changes following the adoption of the original training model.
- C. A description of the various workshop modules, administrative structure and evaluation procedures for the 1974 workshop.

Chapter IV. Results of Utilizing the In-service Training Model

A. A summary of changes in the original training model.

B. A summary of the results of the evaluation for the 1974 summer workshop.

C. A summary of possible future trends in in-service training.

D. A summary of future recommendations for changes in both the workshop and the current in-service training model.

E. A summary of questions for future field research.

The Evolution of the Current In-service Training Model

During the late 1960's key personnel from Ohio's Division of Special Education of the State Department of Education became concerned regarding the method in which the State was using its resources in the area of in-service training. At this time Ohio's special education in-service resources (P.L. 85-926) were largely committed to direct payments to teachers and universities.[2] Teachers could then return to school and take course work for certification in one specific disability area such as deaf or educable mentally retarded. Some of the problems with this approach to in-service training were:

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[2] Information in the first section of this chapter was received through personal communication with Mr. Patrick Gibbons and Mr. Thomas Fisher, Educational Consultants, State Department of Education, Columbus, Ohio.

Problem 1. The cost benefit ratio. For example in 1969 it cost $102,900 to give 145 people two university courses in the certification pattern. At the same time, Ohio was expanding with approximately 430 new special education positions per year with projections for an expansion of 575 for each of the next two years. It was apparent that paying for university course work could not even begin to cover the training needs of new personnel, let alone people already in the field who could benefit from additional training.

Problem 2. The impact of the course work. Since the course work was being taken as a means of initial special education certification, the funds were largely received by new teachers and by those who were certificated in other areas but who were holding a special education position until a position became available in their own field. As a result, Ohio did not receive the maximum return on its training investment.

Problem 3. The narrow and fragmented focus of course work. In paying for course work at universities to meet certification standards the focus was usually on a specific disability area. This presented two problems: First, the course work provided to teachers furnished them with information regarding one disability area but rarely gave them the "generic teaching skills" which would allow them to function across disability areas. The result of paying for training in one disability area was that if local program needs shifted the teacher needed additional training. More importantly, the traditional course work approach to in-service training meant that the quality control

rested with the person providing the course since the content and method of presentation of a course was largely determined by that individual.

In 1969 as a result of these concerns and some preliminary experimental in-service training workshops, a task force was assigned by Ohio's Director of Special Education to make recommendations as to how Ohio could make optimum use of its in-service resources. Dr. Thomas Stephens, who was at the time on the Faculty of the University of Pittsburgh, was employed as the central consultant for this task force. The group made several recommendations. As a result an in-service training project entitled Project Breakthrough[3] was implemented in five regions throughout the entire State of Ohio as the main in-service training vehicle for special education.

Personnel from each of the five regions were asked to implement Breakthrough utilizing several broad guidelines. These were:

1. Training should focus on school leadership personnel whenever possible. These people should then be required to do additional training throughout the school year in order to achieve a "multiplier effect" and increase the impact of the original in-service investment.
2. The content of the workshop should focus on the generic teaching skills which would allow a special education teacher to function across disability areas; e.g.,

[3]Project Breakthrough will hereafter be referred to as Breakthrough.

techniques for individualizing instruction and principles of reinforcements.

3. The people in the workshop should have a chance to apply the skill whenever possible.
4. Follow-up sessions should occur throughout the year to insure transfer of skills into the schools.

The Breakthrough training model remained as the main in-service training vehicle for special education for two years. At that time, it became apparent to the author and others that the original Breakthrough model needed clarification and expansion to incorporate feedback from previous workshops as well as new ideas. As a result a special education training model was described by the author in late 1973.

Based upon that description a planning grant was obtained to implement the model in co-operation with Dr. Thomas Stephens who was on the faculty at The Ohio State University. The model, as implemented by The Ohio State University, Faculty for Exceptional Children, now serves the entire State of Ohio through seventeen Special Education Regional Resource Centers (SERRC'S).

The last portion of the present chapter represents an abbreviated description of the author's training model as it was conceptualized in 1971. An original distinction between training and education is presented in detail while the actual training guidelines are presented in outline form in Figure 1.1. An expanded explanation of these guidelines may be found in Appendix A.

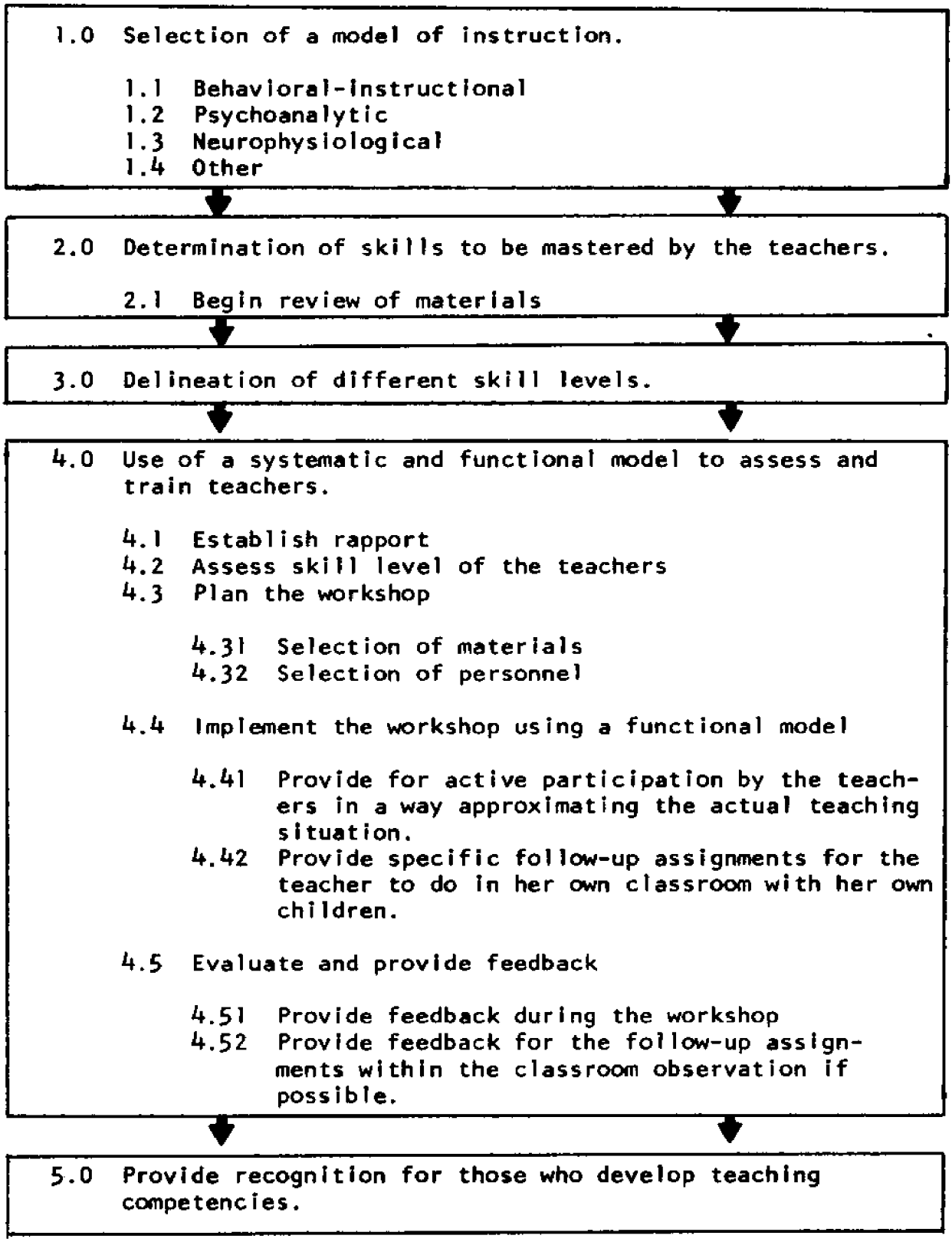

Figure 1.1 An overview of the guidelines for conducting an in-service training program. A more in-depth discussion of the guidelines may be found in Appendix A.

A Description of a Model for In-service Training in Special Education.

Based upon recent advances in teaching technology and the amount of funding available for in-service training, one might assume that our present methods for conducting in-service training are an efficient means of providing teachers with new teaching skills. Actually this may not be so. In most cases traditional in-service training appears to be an extension of the standard college lecture. The purpose of this section of the report is to provide guidelines for conducting what is believed to be a more effective in-service training program.

Training vs. education

It appears that some educators are reluctant to use the terms "in-service training" or "teacher training" as a means of describing their programs. Instead, they prefer the term "in-service education" perhaps without fully realizing the distinction (Conant, 1963, pp. 205-208; Benjamin, et. al., 1968; Schwartz, 1967; Jarolimek, 1970).

Other professions have made the distinction long ago between education and training (Roaden and Larimore, 1973; Pincus, 1970). People in the medical profession, for example, make a clear distinction between talking about the ethics of doing heart transplants (education) and how to do a transplant (training). Discussions and lecturers might be used for the former but on-the-job training would be used for the latter. Today the distinction usually has not been

made between teacher education and teacher training; where it has been made it is sometimes humorous to see that "training" rather than "education" has been relegated to a lower status (Rising, 1973; Childs, 1967).

For the purpose of implementing the proposed in-service program, it is imperative that one distinguishes between topics suitable for teacher education and topcs which require teacher training. Practically, this means that one must divide the curriculum for in-service into two types of topics:

a. Topics suitable for teacher education: These topics are subjects of general interest to all teachers regardless of past training or experience. They are usually informative or inspirational in nature. Examples of general interest topics would be: (1) "New commercial materials for science," (2) "Humanizing the curriculum," (3) "New trends in special education," (4) "What is creativity?"

b. Topics which require teacher training: These topics are specific skills which a teacher must master to be effective and they always involve what the teacher will <u>do</u> in different educational situations (i.e., an operational definition). Examples of specific skills are: (1) "How to appropriately group children in order to teach them according to their levels of skill development," (2) "How to deal with temper tantrums," (3)

"How to use conceptual analysis as a means of determining sequenced and efficient programs in the area of reading."

It is the central thrust of the author's training model that:

1. A different methodology is required for teacher training than is required for teacher education. The "general interest topics" should be the main concern of teacher education and might be covered using the traditional demonstrations, discussions and lectures. On the other hand "specific skills" should be the main concern of teacher training and should be taught using a systematic and functional model.
2. As in most other graduate professional schools, the main focus of in-service, should be on teacher training (i.e., skill development) rather than teacher education (i.e., general interest topics).

CHAPTER 2

Review of the Literature

Jarolimek (1970, p. 329) points out that "All in-service programs are designed to change teacher behavior in some way." He continues, "If teachers are functioning in completely satisfactory ways there is no need for in-service programs." Certainly, there are several well documented reasons as to the need for in-service training in the research literature. These reasons may be categorized as follows:

1. The need for in-service training due to changes in teacher technology, including both new methodology and equipment. The 1974 report of the Teachers National Field Task Force on the Improvement and Reform of American Education (Inside - Out, 1974) states that curricular and methodological changes will necessitate continued maintenance of professional competence. In 1957, Henry (p. ix) pointed out the complex and changing nature of instructional methodology. Today the situation is more complex and changing as exemplified by: new individualized instructional approaches (e.g. Stephens, 1970; Kunzelmann, 1970), the development of minicourses (e.g. Stowitschek and Hofmeister, 1974; Allen and Ryan, 1969), and the instructional use of computers (e.g. Flake, 1975; King, 1970, Maccia, 1973).

Pasch (1974), Atkin (1974), and Edelfelt (1974) all point out that the expansion of public school enrollments is at a standstill with a current teacher surplus. Pasch (1974) states that in 1969 there were over 78,000 teaching positions available, while in 1972 less than 20,000 such positions were available. He points out that in former years new teachers, while novices in terms of classroom experience, often brought the latest pedagogical and curriculum knowledge with them to their jobs. As a result of this relatively stable teacher population, both Atkin (1974) and Pasch (1974) recommend a need for teacher educators to shift their efforts toward in-service training.

2. The need for in-service training based upon new approaches to subject matter and daily instructional problems. James Conant (1963, p. 207) points out that we are in a period of rapid subject change as evidenced by progress in mathematics and biology. He advocates the need for in-service sessions and workshops to deal with these subject changes. In addition to subject changes, Corey (1957, pp. 1-10) points out that teachers are often faced with the need to make adjustments and improvements in daily instruction. He feels that these problems may be best approached through group problem solving activities with colleagues as a form of in-service education. In fact, this point of view dominated the fifty-sixth yearbook of the National Society for the Study of Education which is entitled In-Service Education (1957).

3. The need for in-service training in order to facilitate the adoption of innovations and new programs. In their classic report Mort and Cornell (1941) found that it took almost 50 years for an innovation to spread (i.e. "diffusion rate") throughout the school systems of the country. The current diffusion rate has no doubt been considerably accelerated over that of the 1930's but a critical gap remains as reported in the current literature (Broudy, 1967; Westby-Gibson, 1967). The problem of implementing innovative or new programs is especially crucial. Not only do the number of innovative programs appear to be increasing, but the rate of obsolescence of educational innovations also appears to be increasing (Evaluation and "PACE," 1968, pp. 03-04). Westby-Gibson (1967, p. 2) states "If education is to be improved, scientific knowledge must be used for planned change." She points out that the alternative is to be buffeted by the pressures and demands for educational changes of all kinds. She continues: "To use knowledge in the field of education requires linkage between educators and researchers. This linkage is only beginning to be explored as a concept in education. In-service would appear to provide one avenue for reaching this goal."

Special education has been forced to develop and adopt new programs at an alarming rate (Heller, 1968; Meyen, 1969). These programs have often been the result of parental pressure of legislative action (Heller, 1973). Therefore,

the field of special education has been faced with an additional problem since many teachers have come from other fields within education and do not have the necessary skills to be optimally effective. For example, the extensive survey of programs for emotionally disturbed by Morse, Cutler, and Fink (1964, p. 17) found that only 19% of the teachers had extensive teacher preparation for teaching the disturbed. Several educators have advocated in-service training in an applied setting as a way to ameliorate the need for specialized training to serve handicapped children (Gallagher, 1967; Meyen, 1969; Cain, 1964).

4. The need for in-service training due to the unevenness and inadequacy of prior preparation. Asher (1967, pp. 31-37) cites a study conducted by Brickell in 1961 for the New York State Education Department which expresses several opinions regarding pre-service programs in New York. Among the opinions reported are:

   A. ". . . teacher education programs are designed to produce 'a general professional wisdom' rather than train individuals in specific instructional techniques."

   B. ". . . colleges, universities, and professional organizations have almost no influence on innovations in New York public schools." Henry (1957, ix) points out that teachers entering the teaching profession are usually characterized

as immature and not totally prepared to handle the complex nature of the work they encounter. Rising (1973, p. 53) states that his observations, as supported by his colleagues, "suggest a distribution of teaching quality of approximately ten percent excellent, seventy percent pedestrian, and twenty percent unsatisfactory." Brown, et. al. (1974, p. 220) report on the results of a competency based in-service report on the results of a competency based in-service program within the Atlanta Public Schools. They state ". . . last and most importantly, many in-service and pre-service teachers have been found to lack even rudimentary understanding of the content they teach and of methods by which to teach it."

How do teachers feel about programs for teacher preparation? A national study conducted by teachers (Inside-Out, 1974, p. 10) reports that "it is unrealistic to support a general education program that purports to train teachers and at the same time isolates them from the school environment where they will be expected to perform with confidence." The study also makes the distinction between "learning about teaching," and "learning to teach." This distinction is equivalent to the author's distinction between "education" and "training" as described in Chapter 1. The teacher's study (Inside-Out, 1974, p. 9) states that while learning about teaching is a vicarious experience, learning to teach " . . . is a personal experience accomplished by teaching. There is no other way to learn to teach." The study goes on

to point out that the process of learning to teach is not adequately covered by the present teacher preparation programs. The study concludes that to improve teacher preparation programs more in-school teaching experience is necessary, including the use of a co-operative university/ public school internship program. In order to maintain teaching competencies and to incorporate innovative changes the study advocates "a new unit . . . the teachers' center" which will have in-service training as its central thrust. Other studies have also indicated that teachers view in-service training as a major need. Westby-Gibson (1967) reports based on 1966 NEA statistics, that nine out of ten urban districts are engaged in some form of in-service training for teachers. Edelfelt (1974, p. 250) reports on more current statistics which indicated that "in a 1973-74 NEA assessment of teacher's needs in 20 widely different local associations, in-service education was one of the three needs that surfaced in every instance."

5. The need for in-service training as a result of the changing role of the teacher. Lee reports (1966) that the role of the teacher is changing significantly. He states that there is an increasing trend toward specialization on the part of the teachers. Lee also indicated that instead of a teacher being viewed primarily as one who dispenses information, she is increasingly being viewed as a catalyst in the learning process. Laux (1965) also highlights the changing role of the teacher from that of a purveyor of pre-packaged materials to one of

co-ordinating learning activities as a resource in the learning process. Hewett (1968, p. 35) points out that many of the current methods for serving special education children view the teacher as a "learning specialist" who requires a considerable knowledge and familiarity with child developmental processes and the most current educational practices.

In summary, it is apparent that there is a great need for in-service training. Many educators feel that in-service education will be a major focus if not the primary focus of the next decade (Edelfelt, 1974). Joost Yff, Director of the ERIC Clearinghouse states (Pasch, 1974, p. iii) that the large number of requests for information regarding in-service teacher education has made it ". . . possibly the most important phase of teacher education in the United States."

The Evolution of In-service Training

The concepts and practices of in-service training have changed considerably since the mid-1800's and over the past 15 years in particular. The purpose of this section is to put these events within an "evolutionary" framework.

Figure 2.1. is a schematic of this step by step process. Certainly, the time periods for any program or idea are not capable of being sharply delineated. In addition, many programs are inter-related.

In-Service training before the 1970's

As Figure 2.1. shows, the period between the creation of state systems of public schools and the mid-1950's was one of little activity in terms of in-service training. Much of the information regarding in-service activities during the period was general in nature and largely opinion (Westby-Gibson, 1967; In-Service Education of Teachers, 1966). However, this was a period when the emphasis was being placed on college degree as a pre-requisite for licensing. As Asher (1967) points out, even in 1939 approximately three/fourths of the states required a high school diploma in order to be certified as a teacher and in 1937 only 32 states stipulated one to four years of college as a pre-requisite for licensing.

Asher (1967) describes the earliest focus of in-service training as the teacher institute, teachers reading circles, extension courses, and summer school. All were initiated shortly after the turn of the century in order to provide subject matter information and pedagogical principles. Asher (1957) points out that instruction was usually through lectures or exposure to "general books of literary merit." By the mid-1950's, Conant (1963) points out that two basic forms of in-service education seemed to have emerged. The first, through the universities, in the form of post-graduate programs and the second, through the public schools or teacher professional organizations, in the form of workshops (see Figure 2.1.).

Edelfelt (1974) describes the concept of postgraduate in-service programs as ". . . . . personal professional development,

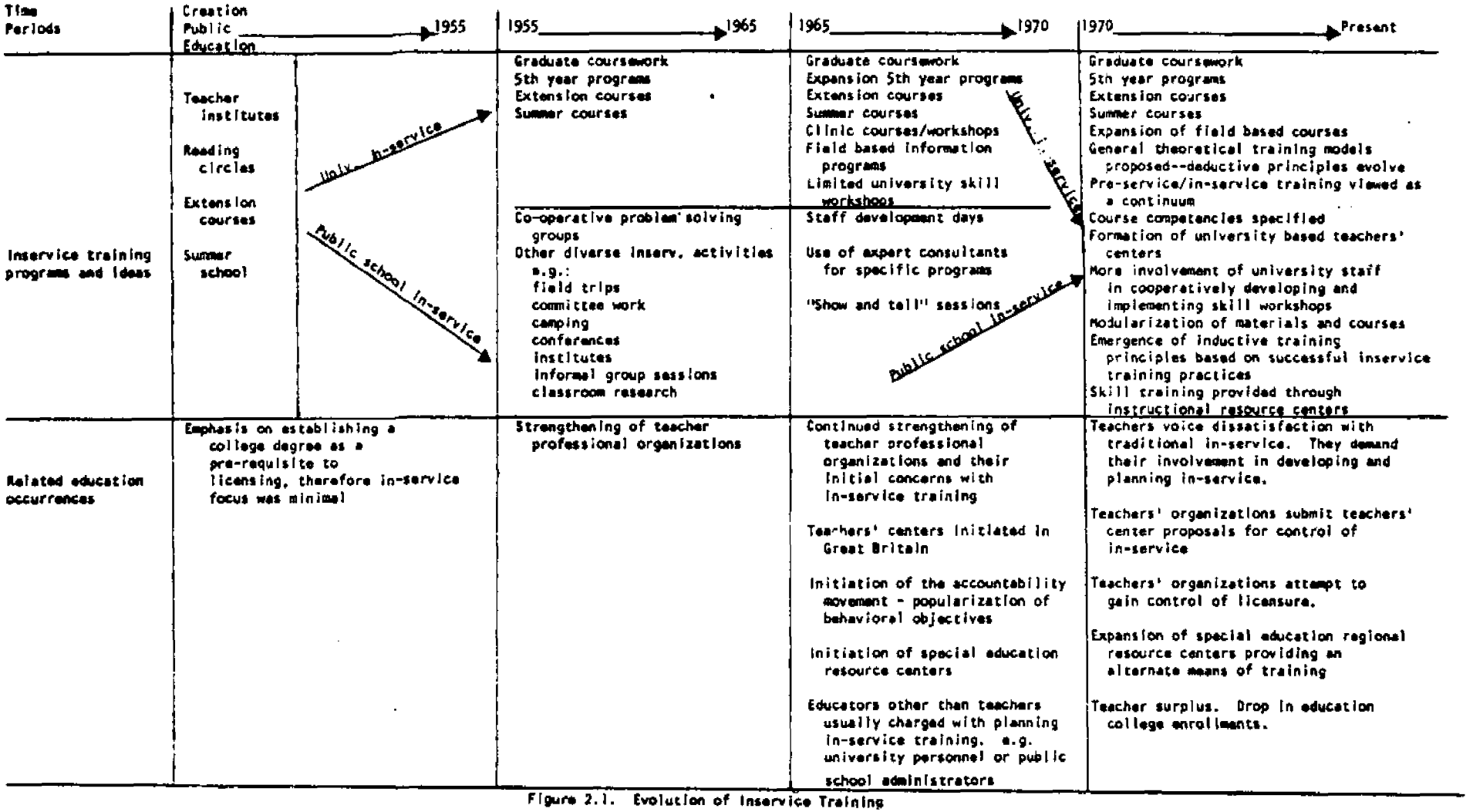

Figure 2.1. Evolution of Inservice Training

formalized into courses at the graduate level that lead to advanced degrees and credentials, job promotions, and added competence for the individual." From the mid-1950's until the mid-1960's these postgraduate in-service programs had taken the form of extension courses, summer school programs, or fifth year programs (Conant, 1963, p. 206; In-Service Education of Teachers, 1966). While some of these graduate programs were probably innovative, both Johnson (1968) and Conant (1963, p. 203) point out that many were simply extensions of the traditional four-year program into the graduate and fifth year.

In his 1963 comprehensive review of the preparation of teachers, Conant (1963) made several recommendations including: 1) methods courses should be taught in the field; 2) most teaching techniques should be learned in the "apprentice master" relationship of practice teaching. Other academic disciplines (e.g. educational philosophy or educational history) would really add little to what an apprentice teacher can learn on the job from a first rate teacher under optimum conditions. 3) No cost, short term workshops should be provided in order to maintain and update skills and to study particular educational problems. The reaction of Conant's colleagues to his benchmark for field-based and practical programs was "less than favorable" (Childs, 1967, p.266) and an AACTE questionnaire (AACTE, 1964, p. 49) found that "of 191 forms returned, 178 indicated no changes or plans to change as a result of Dr. Conant's book." However, Figure 2.1 shows that from the mid-1960's through the late 1960's there was an initial shift toward

more field-based and practical university in-service programs (Atkin, 1974). Johnson (1968) also describes a movement toward fifth-year programs (not recommended by Conant) with field-based internship components. Field-based programs usually took the form of clinic programs (e.g. Schwartz, 1967), university/public school skill workshops (Jarolimek, 1970). The Breakthrough training model, described in Chapter 1, is an example of an early university/public school skill workshop.

This initial shift toward more practical in-service programs was not widespread enough to satisfy teachers, who in the late 1960's were beginning to be more organized and vocal in requests for in-service with direct application in the public schools. Selden (Selden and Darland, 1972, p. 2), writing as the president of the American Federation of Teachers states:

> "In-service education has a bad reputation among teachers. For nearly half a century American teachers have been required to attend courses throughout their working careers. Too many of these classes have been spiritless time-fillers. Instead of promoting educational change and teacher renewal, in-service courses have tended to increase teacher resistance to new methods and concepts."

A quote from Pasch (1974, p. 1) is probably most representative of teacher feelings toward university in-service in the late 1960's or early 1970's:

> "Effective in-service education is not likely to result from the 'homogenized' university graduate degree program. The better programs generate considerable theoretical power for thinking teachers rarely do any of the programs have built-in mechanisms to meld theory

> into practice. Elementary and secondary teachers enter graduate education with monetary reward or promotion as motivation; positive teaching performance consequences are a bonus for the fortunate."

Evolving concurrently with the iniversity in-service program was the public-school workshop in-service program (See Figure 2.1.). The concept of "workshop in-service programs" is the focus of the fifty sixth yearbook of the National Society for the Study of Education (In-service Education, 1957). In this yearbook, in-service education is described as a co-operative activity of planned programs in some contrast to the various activity in which teachers might independently engage in order to improve themselves. Figure 2.1. shows that during the period between 1955-65 many types of public school in-service workshops were provided (In-service Education of Teachers, 1966). Asher, (1967, p. 7) points out that during this period some workshop activities have been so diverse as "....listening to haiku verse for general self improvement to a Saturday bus ride for a day of exploration into an oil field."

During the mid and late 1960's most public school workshops fell into three main categories:

1. Staff development days. These are usually one or two days set aside by a school district in order to provide information, usually by someone from outside the school district. A statement by Pasch (1974, p. 1) seems to summarize a typical staff development day.

> "Too often these episodes are planned around an overly generalized theme such as 'Humanizing Education' or 'Planning for Progress.' The workshop activities begin with a 'jarring' large group address from an outside consultant and are followed by small group discussions which often either deteriorate into small talk or focus on long or short-term grievances."

2. Outside experts for specific areas. In this case an outside "expert" (e.g. university professor or physician) is employed by school district administrators to spend a few hours every month providing advice to the teachers in a specific program. Pilcher (1973) points out the problems for both the expert and the teachers since often there is an expectation that an "instant" panacea exists for complex classroom problems. In addition, both Edelfelt (1974) and Pilcher (1973) point out that this type of in-service often is complicated by the fact that those in charge of planning the workshop (e.g. administrators and curriculum specialists) often are divorced from the teachers who are to receive the service.
3. Show and tell sessions. These sessions are usually conducted in order to provide information regarding new subjects, materials, and equipment as well as to describe new teaching ideas and programs. Usually these workshops are conducted by staff within the district; occasionally they are provided through professional organizations, universities, or regional material centers (e.g Meyen, 1969). While some of these sessions are undoubtedly well organized, Bricker (Asher, 1967, p. 35) found, after reviewing data for 100 schools, that "Presentations at professional meetings tend to be random, disjointed, overlapping, and unfocused." He also found that information in the form of "printed materials and speeches have

little pervasive effect." This finding is hardly surprising in view of research in other fields on the effectiveness of disseminating information as a means of changing performance (Clark, 1962; Burgess et. al., 1971; Marler, 1971.).

From the above discussions it is apparent that for the most part neither traditional university coursework in-service or public school workshop in-service was meeting teachers' needs. The major reason for this was that during the 1950's and 1960's teachers were rarely involved in planning in-service or assessing their own needs. Edelfelt (1974, p. 250) points out that in-service education for teachers is usually "planned and executed by educators other than teachers." The 1960 Brickell Report states (Asher, 1967, p. 35):

> ". . . it seems strange that teachers, who deal every working day with the problem of reaching sharply differing pupils, should do almost nothing to screen audiences or guide speakers so that better learning could take place at professional meetings."

Davies (Evaluation and "PACE"., 1968) in a study reviewing Title III in-service proposals states that one proposal which included both administrator in-service training and teacher in-service training had administrators evaluate the program on the basis of their perceptions while teachers were evaluated by outside "experts." Pilcher (1973, p. 341) summarizes the situation well:

> "The American public school teacher has for years been the 'nigger' of the system. Nowhere is this more obvious than in the relationship with university and outside experts. Deferentially he scrapes and bows, listening politely and following obediently the obviously superior minds of the outsiders. Just as predictably, when the outside expert leaves, the teacher typically reverts to his old ways."

Pilcher continues:

> "Admittedly, this generalized picture of total failure is an exaggeration for many cases. What is no exaggeration, however, is the master/servant, superior/subordinate role relationships . . ."

Teachers' bitterness regarding the traditional superior/subordinate relationship is reflected in the following quotes from the Teachers National Field Task Force on the Improvement and Reform of American Education (Inside - Out, 1974, p. 10).

> "The condescending attitude of many teacher education professors toward elementary and secondary teachers, combined with their traditional control of both pre-service and in-service teacher preparation, is not conducive to realistic change in teacher preparation. This singularity of decision-making has been a major force in preserving the status quo, thus generating much of the concern for today's inadequate educational programs. Teachers, through recognized teacher organizations, must participate with State departments of education and higher education to make decisions based on real needs." . . . "Higher education is a fact of life for those preparing to teach. It is not likely to change. The name 'higher education' is an unfortunate misnomer and falsely gives exclusive prestige to what should be considered an integral part of a total educational program."

Pilcher (1973) points out that the solution must come through a "partnership" between outside consultants and teachers where both respect the expertise of the other. What Pilcher does not point out is the teachers' strong determination to have an equal voice in planning and implementing future in-service programs. The determination is reflected in "teacher center" proposals by both the National Education Association (Teacher Centered Professional Development., 1974) and the American Federation of Teachers (Selden and Darland, 1972).

Thornbury (1963), points out that teachers' centers originated in the mid-1960's in Great Britain and that it was not until the early 1970's that the significance of teachers' centers became widely publicized. In one of the initial articles published in the United States about teachers' centers Bailey (1971, p. 146), states:

> "Teacher centers are just what the term implies; local physical facilities and self improvement programs organized and run by the teachers themselves for purposes of upgrading educational performance."

In the United States, the Teachers National Field Task Force on the Improvement and Reform of American Education (Inside - Out, 1974, p. 16) states that in-service training should be the responsibility of local districts and teachers' professionsl organizations. Institutes of higher education are not mentioned. The report continues to recommend that the in-service training should be carried out through the establishment of "a new unit . . the teacher's center" which would . . . be governed by teachers through their professional organization." A 1974 National Education Association proposal (Teacher Centered Professional Development, 1974, p. 2) delineates the basic assumptions of the teachers' center. Three of these are:

1. "The cost of providing opportunities for continuing in-service education is a 'cost of doing business'." (i.e. Teachers should not have to use exclusively their own personal funds or their personal time to learn how to do their jobs better.)

2. "Lasting and effective professional development, therefore, requires that teachers have a dominant role in developing processes relating to their own continuing professional development."

3. "Decisions about the expenditure of public funds for continuing professional development cannot be left to the intuitive knowledge of individuals or clusters of individuals whose primary responsibilities are external to the classroom" (e.g., institutes of higher education).

Atkin (1974, p. 30) in a review of changing patterns of teacher education in the United States predicts that in-service education programs of the 1970's are likely "to be housed in a facility called a 'teacher education center'." Pilcher (1973, p. 34) points out that in 1973 funding for planning grants to implement twenty teachers' centers "suddenly materialized from the U.S. Office of Education." He also states that three state departments have been awarded one quarter of a million dollars each to set up teachers' centers.

It is important to note (Pilcher, 1973, p. 342) that the creation and governance of these original teachers' centers still rests almost entirely with ". . . the educational establishment of professors, educational consultants, and curriculum developers . . ." Whether this traditional power relationship will be able to be maintained is currently uncertain. The National Education Association (Teacher Centered Professional Development, 1974) is committed to provide support for extensive consultant services in order to plan and obtain public funds for teacher controlled teachers' centers in 13 "lighthouse sites." This commitment to the concept of teachers' centers by professional organizations coupled with the demands of teachers (Inside-Out, 1974) for control of certification and licensure, presents a real challenge to those currently maintaining control over in-service training.

The key factor appears to be the level of teacher dissatisfaction with the "educational establishment." It is likely that the current educational system can retain much of its power if it can change soon enough to reduce teacher dissatisfaction by:

1. beginning to view teachers as educational colleagues and
2. beginning to involve teachers in designing, planning, and implementing in-service training in order to assess and meet teachers' needs.

In-service training during the 1970's

During the early part of the 1970's there has been a considerable trend by universities and public schools to work together on field based in-service education programs with direct applications in the field (Pasch, 1974; Brown et.al., 1974; Meyen, 1969; Stowitschek & Hofmeister, 1974; Volker & Simonson, 1974). In addition, there has been a trend to put pre-service and in-service on a continuum emphasizing an integration of university and public school programs. Atkin (1974) points out that the concept of an integrated field-based pre-service/in-service program was not generally well "grasped" in the later 1960's by either university or public school personnel. However, since then, the concept has been widely recommended (Benjamin et.al., 1968; Sowards, 1968; Snow, 1972; Collins, 1970) and has been implemented by some universities (Plumb & Ojala, 1974; Integrated Pre-service In-service Teacher Development Program at the University of New Hampshire, 1974).

The two in-service trends described above are likely to continue, especially in special education, for the reasons listed below. The first three of these reasons have been documented above.

1) The level of teacher dissatisfaction with traditional in-service training programs.
2) The growing influence of teachers' professional organizations.
3) The emergence of teachers' centers.
4) The potential market in programs of in-service education for colleges and universities. Edelfelt (1974, p. 250) points out that "in 1973, for the first time, the number of college graduates in teacher education decreased. The problem is and will be how to continue tenured college faculty unless new demands for their services can be found." . . ."for many colleges, it [in-service training] is a matter of survival."
5) The formation of a popular alternate delivery system for in-service training in special education -- the regional instructional resource center. Edge (1973, 10-33) describes the inception and rapid growth of the special education instructional resource center movement in the United States. He points out that teacher response to the centers was very positive. An Ohio Department of Education Report (Ohio SERRC's, 1975) describes Ohio's instructional resource centers. Ohio currently has 16 Special Education Regional Resource Centers or

SERRC's which serve the entire state. Some of these SERRC's have as many as three physical sub-centers serving a geographical area. They are governed by local public school administrators from each district in their area and have teacher and supervisory advisory boards. The report states (Ohio SERRC's, 1975) that one of the major goals of the centers is to relate instruction to materials through in-service training. An independent evaluation of the SERRC's conducted by Brickell and included in the report (Ohio's SERRC's, 1975, pp. 13-41) found that special educators "definitely" liked the centers and found their services useful. In-service training ranked only behind borrowing instructional materials as the most popular service of the center.

The trend of university/public school co-operation in in-service training over the last 5 years has had a great influence on the technology of in-service training. The evolution of the current technology is reflected in the literature in two patterns: 1) the tendency of technology to evolve deductively from theoretical training models; 2) the tendency of technology to evolve inductively from successful training practices. The remainder of this chapter will focus on delineating the current principles of technology as they have developed through both of these patterns.

Figure 2.1 shows that before the late 1960's most in-service training was traditional in nature and theoretical in-service

training models were not in wide use. In evaluating Title III proposals (innovative programs) in the area of in-service education, Davies (Evaluation and "PACE," 1968, p. A29) found that of 13 proposals only four "included anything that could reasonably be considered a model. Two of these were informal and incomplete . ." In the late 1960's the United States Office of Education commissioned the development of nine theoretical models in order to generate new ideas for pre-service and in-service training (Benjamin, et. al., 1968). The 1970's has witnessed the emergence of a plethora of these theoretical in-service training models (e.g. Snow, 1972; Sowards, 1968; Sanders, 1973). Some theoretical models are amazingly complete; for example an in-service training model developed by staff members at Syracuse University (Benjamin, et. al., 1968) is over 500 pages in length. Even though the complexity of the above in-service training models varies, all are based on a systems model and incorporate the four basic systems elements of assessment, planning, implementation, and evaluation used in a cyclical fashion (see Appendix A, Figure 1).

Many of these theoretical models (e.g. Benjamin, et. al., 1968; Sowards, 1968) contain principles and ideas in the fore-front of educational theory such as: specification of course competencies in terms of specific behavioral objectives, "cybernetic feedback loops," individualized pacing with computerized tracking of student progress, or complex instructional "support systems" for program maintenance, staff training, and research.

At present, however, there is no indication in the literature that such complex theoretical systems have been implemented, although an occasional article has appeared summarizing one of the more complex models (e.g. Hough, 1969). Even descriptions of simpler theoretical models (Schalock, 1969; Snow, 1972; Sanders, 1973) rarely describe any implementation results.

The principle of Competency Based Teacher Education (CBTE) is perhaps the most popular example of an in-service training principle which has deductively evolved from theory with little supportive data because of its almost compelling logic. In 1966 Reynolds reports that the Council for Exceptional Children issued a major policy statement calling for the specification of competencies required for special education teachers and the translation of these competencies into standards for colleges and universities. Glasar (1964) is one of the earliest advocates of specific objectives for in-service training programs. Educators in the mid-and late 1960's began to list competencies for teachers (Kvaraceus, 1966; pp. 176-180; Westby-Gibson, 1967). These initial competencies were very general by today's standards. By the late 1960's competencies became much more specific (Sowards, 1968; Benjamin et. al., 1968) even though data still was not reported. The more specific objectives may have been a result of the popularization of a book by Mager (1962) with detailed requirements for writing specific behavioral objectives. Atkin (1974) reports that in a 1972 survey of teachers' colleges 71% of the colleges responded that they were either implementing or investigating CBTE programs.

Currently, a number of articles have appeared in the literature advocating CBTE in-service programs (Shearron, 1974; Horodezky, 1974; Competency Based Teacher Education, 1972; Schalock, 1969; Brown, et. al. 1974, pp. 222-223). In all of these articles only Brown et. al. report implementing the program and he does not report data. Brown et. al. (1974) do report that "In general, it has been found that the program of study defined by the modules leads to the attainment of the desired competencies." However, he is very cautious in his concluding evaluation of the program, stating that "More extensive evaluation is needed and deeper questions remain to be investigated." Recent data have been reported (Stowischek and Hofmeister; 1974; Borg et. al., 1968) which show that the minicourse is successful at changing teacher behavior. It is important to note that in these studies observers were taught the criteria of acceptable performance which they should observe through observing video tapes with feedback as opposed to being taught the criteria of acceptable performance through reading the desired competencies. This is an important distinction.

Concurrently with the evolution of deductive in-service training principles there was an inductive emergence of technology from successful training procedures. In the late 1960's and early 1970's most of the articles and actual in-service training took the form of narrative descriptions of what was done (e.g., Meyen, 1969) or "cookbook" lists of suggestions for conducting a workshop (e.g. Ward and Levine, 1971). Soon some articles (e.g., Jarolimek, 1970; Baun and Chastain, 1972) were reporting in-service training designed

and conducted around one or two principles (e.g, careful sequencing and module development, importance of immediate feedback, or individual pacing). Currently, many articles (e.g. Volker & Simonson, 1974; Stowitschek & Hofmeister, 1974) report about training which has been designed and implemented around several principles of in-service training.

A synthesis of the above literature results in a set of principles or technology for conducting in-service training sessions. Inductive and deductive approaches seem to share all but one of these in-service training principles. That principle is CBTE and it is common to only deductive theories reported in the literature. Below is the list of common deductive/indictive principles for conducting in-service training. Limited literature references are provided for each principle:

1) The principle of a systems approach embodying at least four basic elements; assessment, planning, implementation and evaluation. These elements should be used in a dynamic cylical fashion in relation to achieving system objectives. (Benjamin et. al., 1968; Volker & Simonson, 1974; Stowitschek & Hofmeister, 1974; Snow, 1972).
2) The principle of feedback. Feedback should occur as immediately as possible and as often as possible (Brown, 1974; Sowards, 1968; Shalock, 1969, Volker & Simonson, 1974).

3) The principle of operationalism. The desired behaviors and decision rules as to how and when to behave should be taught or specified for any training situation (Gallagher, 1967; Stowitschek & Hofmeister, 1974; Brown, 1974).

4) The principle of step by step sequencing of materials within a package or module. Materials should be carefully ordered for success on the part of the learner. Opportunities for active responding, immediate feedback, and branching should be provided whenever possible. (Show, 1972; Sowards, 1968; Jarolimek, 1970; Baum & Chastain, 1972; Volker & Simonson, 1974).

5) The principle of functionalism. Learners should be actively involved in a situation to learn skills. The actual skills should be practiced if possible under real conditions and if not, a simulated activity should be practiced. Instructions or information sessions should be held to a minimum followed by an immediate chance to practice the skill. (Benjamin et. al., 1968; Inside - Out, 1974; Brown, 1974; Stowitschek & Hofmeister, 1974).

6) The principle of individual pacing. In-service training should be designed for students to move at their own rate. (Sowards, 1968; Johnson, 1968; Volker & Simonson, 1974; Baum & Chastain; Jarolimek, 1970).

7) The principle of multi-level evaluation. Evaluation of in-service training should occur at several levels in order to be valid; e.g., performance in the in-service training session

performance on the job, perceptions of the training, or change in child performance. (Asher, 1967; Sowards, 1968; Brown, 1974; Stowitschek & Hofmeister, 1974).

8) The principle of Competency Based Teacher Education -- CBTE (reported in the theoretical literature only). Teacher competency statements should be used to evaluate performance of in-service training. These competencies should be written as specific behavioral objectives and should be taught directly.

CHAPTER III

Implementation of the In-service Training Model

Project Breakthrough was initiated by the Division of Special Education, Ohio Department of Education in November of 1969. In order to announce the project, a statewide meeting was held in December 1969 in Columbus, Ohio. Over 200 special educators representing school districts and universities participated in the one day meeting. The goal of the meeting was to explain the project and to solicit proposals for five in-service training workshops. Mr. S. J. Bonham, Director of the Division of Special Education explained that the purpose of the in-service workshops must be to provide special educators with the necessary methodology to individualize instruction. He also explained the other guidelines[1], developed by the Breakthrough Task Force, which were necessary for proposals to be considered.

Dr. Thomas M. Stephens, who served as the major consultant to the Breakthrough Task Force, then outlined the components and requirements of any workshop designed to individualize instruction. Stephens utilized the Directive Teaching Model (Stephens, 1970) to exemplify the components of an individualized instructional methodology, which was to be the curriculum for all Breakthrough projects. He explained that all individualized instructional methodology has four basic systems components:

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[1]The other guidelines for proposals are described above in chapter 1.

1. Collecting descriptive information regarding the child(ren)--Assessment.
    a. Academic skills
        i) reading
        ii) arithmetic
    b. Social skills
        i) attending
        ii) interactions with the teacher
    c. Reinforcement
        i) model
        ii) reinforcer
        iii) rate
    d. Learning modalities
        i) visual
        ii) auditory
        iii) haptic
        iv) olfactory
        v) gustatory
2. Devising a teaching plan based on the assessment--Planning
    a. Developing weekly plans
    b. Developing daily plans

Teaching plans should be based on the assessment and should specify the method for initial presentation of a skill as

well as contain specific activities for practicing the skill; the teacher should also set evaluation criteria and provide (the) child(ren) with ample opportunities for meeting criterion.

3. Teaching the child(ren)--Implementing the lesson plan.
   a. Follow the lesson plan
   b. Adjust the lesson when necessary
4. Evaluating the instruction.
   a. Determine whether the child(ren) met the stated criterion
   b. If an adjustment in the teaching plan was necessary, determine the reason
   c. Use the evaluation information as new assessment information

The Director of Special Education invited the assembled educators to return to their respective areas, form regional advisory committees and submit proposals which incorporated the guidelines set by the original task force for the implementation of Project Breakthrough. Several proposals were submitted and five regions were funded in the first year of the project.[2]

Implementation of the 1970-71 Central Ohio Project Breakthrough

The Central Ohio Breakthrough was implemented in three phases. In accordance with the recommendation made by the task force, the

[2]These regions included the Central Ohio Region, the Northeast Ohio Region, the Lake Erie Region, the Northwest Ohio Region, and the Southeast Ohio Region. Hereafter all descriptions and data will refer to the Central Ohio Project Breakthrough.

participants in the 1970-71 Breakthrough were recruited from the ranks of special education leadership personnel.

The first of the three Breakthrough phases was completed during the spring of 1970. The objective for Phase I was to instruct the participants in concepts of reinforcement. The method of presentation was largely didactic; and no opportunities were provided for functional application of the theories conveyed. Evaluation for this phase was a paper-and-pencil test which served as the criterion for admittance into Phase II.

Phase II was a ten-day special study institute conducted in June of 1970 under the direction of Dr. Stephens. Participants were assigned to one of several team leaders. The team leaders had been trained in the functional application of behavioral theory; and their chief responsibility was to assure that participants experienced success in acquiring the skills to be taught.

To provide participants with an immediate opportunity to apply the training methodology, thirty-five elementary level children with moderate learning and behavioral disorders were included in this phase of the project. The participants were required to interact daily with the children assigned to them and to implement related functional assignments within one of the four basic individualized instructional systems components described above. In addition to individualizing instruction with their assigned child, participants were also taught methods for conducting parent conferences. The team leaders were responsible for conducting observations and providing feedback during the general team meetings. During the

final days of the workshop, participants were required to write comprehensive individual reports documenting the techniques they used to accomplish positive behavioral changes in the children. Samples of these reports may be found in Appendix B. The individual reports, along with the participants' performance, served both as the evaluation for Phase II and the basis for involvement in Phase III.

The purpose of Phase III was to provide the special education leadership personnel with the opportunity to apply their newly-acquired skills within their home districts by initiating training programs for teachers or parents of handicapped children as well as with children directly. In this way, the project would fulfill the task force recommendation to achieve a "multiplier effect"; e.g., if 30 leadership personnel are trained during the summer and if each of these people train only seven staff members, the net result is that 210 people receive training, thereby increasing the per dollar impact of the original in-service investment.

Therefore each of the participants were required to specify a target population in their local system and to submit a proposal for a sub-project to be implemented in connection with their role in the schools. The essential components of the sub-projects were 1) specification of measurable objectives; 2) delineation of procedures to be used in meeting those objectives; and 3) a design for evaluating the effects of the treatment as reflected in positive behavioral changes in children. University consultants were

assigned to assist the participants in executing their projects. During the months from September 1970 to June 1971 consultants held monthly meetings with all the participants, provided follow-up in the form of on-site assistance, and conducted individual conferences. The monthly meetings usually took place from noon until four o'clock. Participants shared experiences and problems, received instruction in additional concepts and techniques from the consultants and project director and demonstrated sample follow-up activities using media such as role playing, video tape, and film. These meetings also provided an opportunity for individual consultation between participants and project staff.

Twenty-nine special education practitioners, representing twelve Central Ohio school districts, successfully completed Phase III of Breakthrough during 1970-71. Table 3.1 shows that of the twenty-nine participants completing Phase III, twenty-seven submitted an evaluation report, twenty-eight provided in-service training and classroom consultation to teachers, nine conducted parent training sessions and four participants worked directly with children.

TABLE 3.1

Summary of Participant Involvement in the 1970-71 Central Ohio Project Breakthrough

Participant No.	Turned in Final Eval.	Implemented Phase III but Turned in no Final Evaluation	Dropped Out	Participant in Project Component		
				Teachers	Parents	Children
1	x			x		
2	x			x		x
3	x			x		
4	x			x	x	x
5	x			x	x	
6			x	-	-	-
7	x			x		
8	x				x	
9	x			x	x	
10	x			x		
11	x	x		x		
12	x			x		
13	x			x	x	
14			x	-	-	-
15	x			x		
16	x			x		
17				x	x	
18	x			x		
19	x			x		
20	x			x		
21	x			x		
22	x			x	x	
23	x			x		
24	x			x		
25	x			x	x	
26	x			x		x
27	x			x		x
28		x		x		
29	x			x	x	
30	x			x		
31	x			x		
Totals	27	2	2	28	9	4

Total Participants Starting 31
Total Participants Finishing 29

Perhaps one of the most impressive results of Project Breakthrough is the number of personnel who received training as a result of the "multiplier effect" described above. Table 3.2 provides an illustration of the multiplier effect.

TABLE 3.2

Type and Number of Personnel Receiving Training through the 1970-71 Central Ohio Project Breakthrough

Disability Area	Number Special Education Personnel Trained			Total Clock Hours of In-service Provided
	Teachers	Other Personnel	Total Teachers & Others	
Educable Mentally Retarded	109	33	142	39,806
Visually Impaired	3	4	4	134
Learning Disabled	38	31	69	9,784
Totals	150	65	215	49,724

Even without including the substantial number of hours of training which was provided to regular education teachers who attended special education in-service meetings, project staff estimated that 49,724 hours of in-service was provided to special education personnel, utilizing approximately $17,000 of in-service funding during the 1970-71 Project Breakthrough. These figures would have been equivalent to providing a full three-week workshop (90 clock hours) for 552 people at a cost of approximately 34¢/clock hour of in-service training.

Changes in the In-service Model as a Result of Evaluative Feedback

One of the major modifications in Breakthrough in subsequent years involved the shift from a three-phase to a single-phase project. In the second year of implementation of the in-service model, largely as a result of participant attitude, Phase I was incorporated into Phase II. The original Phase I lectures had focused on reinforcement theory and participants had not been provided with an opportunity for functional application of the concepts taught. By including the presentation of these concepts in the summer workshop, teachers could immediately apply them to practical situations.

Evaluation and the follow-up phase

The original Project Breakthrough Task Force recommended that maximum impact could be achieved by conducting follow-up sessions to the summer workshop throughout the school year. In addition to serving as a means for insuring the transfer of skills into local school districts, the follow-up phase provided the project staff with evaluative feedback and suggestions for improvement in the summer program. Although the results of the first follow-up phase were impressive (see Table 3.2), and positive feedback was received from the participants, four major weaknesses surfaced.

1. The use of the "project proposal" format was cumbersome and generally resulted in lengthy non-specific narratives. Most participants lacked experience in writing state and federal research and demonstration projects, and the sub-project proposal guidelines

closely resembled this format. In addition over one half of the participants wished to interact with more than one group (e.g., teachers and parents), but were discouraged by the requirement to write a complete additional project proposal.

2. Much of the evaluation data returned by the original participants demonstrated change at the teacher or parent level but did not reflect positive behavioral change in children. One participant shared with the project staff several assessments which she had taught teachers to design; however, she had no data to support the actual use of those assessments with children.
3. Even though the project staff stressed the importance of a valid pre-test to establish a gain score, most participants began to provide training without any pre-test measure or, at best, a paper-and-pencil test dealing with terminilogy.
4. The type of data returned by the participants was so diverse that data reduction to illustrate the measure of training effectiveness was almost impossible. One participant listed gain scores on his own pre-test/post-test; another reported results of academic and social assessments conducted by his teachers; another returned tables which reflected an increase in the number of positive remarks for the four out of five teachers he trained: a fourth participant utilized a five-point rating scale to measure usefulness of training.

To eliminate these weaknesses, several changes were made in the follow-up phase during the second year. First, the "project

proposal" was eliminated; second, a new set of evaluation procedures were implemented based on a training guide developed by Stephens and Cooper (1971). The complete training guide is contained in Appendix C.

The objectives, procedures, and evaluation components which comprised the "project proposal" were also present in the training guide. The difference was that the training guide contained step-by-step instructions, thereby eliminating the non-specific narrative submitted in the first year. The training guide required that participants collect baseline data before implementing the training. By focusing the data to be collected at the level of change in children and by standardizing the type of data collected, the project staff was able to summarize the results and evaluate the total impact of the follow-up phase.

Over the next two years, several problems developed in the implementation of the follow-up phase.

1. Lack of sufficient funding and inadequate staff resources caused a severe reduction in the number of site visitations.
2. As staff consultants spent less time in the schools, communication problems began to arise. School personnel who were experiencing difficulties because of areas of skill deficit were often required to wait three or four weeks before receiving consultant assistance. Feedback, both corrective and corraborative, was not immediate.

3. By the last year of implementation of the follow-up phase, so much emphasis was being placed on collecting evaluation data that the instructional skills necessary to affect behavioral change were being obscured.

In 1974, the Division of Special Education recommended that the follow-up phase be deleted from the project proposal, and no funding was allocated for that purpose.

The Development of the "Summer Workshop" Phase

Project Breakthrough had served as the main in-service training model during 1970 and 1971. By 1971 several problems in the implementation of the training phase were noted:

1. In the two previous workshops the lectures and seminars conducted by university consultants and team leaders, although generally informative and functionally applicable, were sometimes lengthy and often did not directly relate to the functional assignments being implemented with the children. Therefore the application of concepts to practice was minimized.
2. Often the functional assignments were not clearly defined; i.e. participants did not know how to implement the assignments.
3. There was little opportunity to practice individualizing instruction with a group of children since a great deal of time was spent in assessment and tutoring.
4. Because instructional materials were not readily available, many participants spent a disproportionate amount of time during

the workshop devising their own assessments.

5. Although the team leaders observed participants' interaction with children, there was no immediate and specific feedback. Feedback was provided in the afternoon team meetings; however it was not specific to the participant and was not written.

6. No specific teaching skills had been delineated in the first or second year of the project; instead the workshop agenda listed several topics to be presented.

7. The workshop was beginning to experience administrative problems due to differential assignments on the part of individual team leaders and the lack of communication between team leaders and among other workshop staff.

In an attempt to resolve some of these problems, the author proposed the guidelines for in-service training described in Chapter I and Appendix A. With the assistance of Dr. Stephens and at the suggestion of the Ohio Division of Special Education, the 1972 Project Breakthrough incorporated several changes in accordance with these guidelines. Figure 3.1 represents the general daily schedule followed during the three-week workshop held in the summer of 1972.

8:30 - 8:55	Team Meetings
8:55 - 9:00	Children Arrive
9:00 - 9:30	Group Instruction
9:30 - 9:40	Mini Reward Time
9:40 - 10:15	Tutoring
10:15 - 10:30	Mini Reward (outside play or gym)
10:30 - 11:00	Group Instruction
11:00 - 11:15	Mini Reward (juice and cookies)
11:15 - 11:40	Tutoring
11:40 - 11:55	Reward Time
11:55 - 12:00	Summary and Dismissal of Children
12:00 - 1:00	Lunch
1:00 - 2:30	University Presentation
2:30 - 3:30	Team Meetings

Figure 3.1. A general daily schedule.
Central Ohio Project Breakthrough, 1972.

One of the problems with the two previous workshops had been the lack of opportunity for participants to apply immediately the skill concepts introduced during lectures. Two changes were made in the daily scheduling as a step toward remedying that problem.

1. University consultants continued to present lectures describing procedures and techniques for implementing individualized instruction. Following the presentations, participants attended team meetings where they received suggestions and specific instructions

for practicing these concepts (see Figure 3.1).

2. In addition the daily functional assignments with children were resequenced to provide participants with an immediate opportunity to apply the previous day's lesson.

While these changes also served to further clarify the functional assignments themselves, a major improvement to the workshop curriculum clearly defined the requirements for the participants. The Directive Teaching Training Kit (Stephens, 1971d), distributed to the participants by the team leaders, contained the ten functional assignments in what was termed the "blue book." Team leaders reviewed the "blue book" assignments with the team members and set a time line for completing the requirements. In order to provide feedback, team leaders collected the "blue books" on two interim dates; however, participants completed the functional assignments; any incorrect assignment had to be re-attempted until the participant had mastered the concept. Accompanying the "blue book" was a training guide (Stephens, 1971c) which gave specific suggestions for completing each assignment. During afternoon sessions, team leaders highlighted portions of the Training Guide pertaining to the next functional assignment, sometimes making modifications and additional suggestions to meet the needs of the individual workshop. Appendix D is an example of a correctly completed functional assignment.

In addition to the training guide and the "blue book" the Directive Teaching Training Kit provided participants with

supplementary curriculum materials such as a timer, reward activities and tokens. In earlier workshops these materials had been supplied by the participants themselves. The distribution of informal assessments in reading and arithmetic further reduced the amount of time spent preparing for sessions with children. The CARE packet[3] was one of the reading assessment instruments used; Skills for Arithmetic (Cooper, Groves, & Lambour, 1972) provided sequential assessments in arithmetic skills as well as forms for individual and class profiles. Examples from the CARE packet and Skills for Arithmetic may be found in Appendix E.

Team requirements for the 1972 workshop

Along with the other instructional material supplied in the Directive Teaching Training Kit, these assessments aided the participant in fulfilling the three basic team requirements: 1) individualizing instruction for an individual student; 2) individualizing instruction for a group of students; and 3) completion of observation reports for each of the two daily group lessons.

On the third day of the workshop, participants were each assigned one child to assess and teach in both academic and social skills. Academic assessments were generally conducted using the curriculum materials provided (see Appendix E); however, some participants chose to develop original assessments. Social skills assessment

[3]The CARE packet was cooperatively developed by Norma J. Zappin, Coordinator, Regional Instructional Material Center; Virginia Lucas, E.M.R. Coordinator, Montgomery County Schools; and Joyce Levin, Reading Curriculum Coordinator, Montgomery County Schools. Funding was through Title VI-B, E.S.E.A. 442A-AB-70.

required observations of the child in various situations and under different conditions (i.e., in the halls, on the playground, in free time activities, during group instruction). Based on the individual academic and social assessments, participants were required to complete individual weekly lesson plans from which they would derive daily plans. Appendix F is an example of a weekly lesson plan for an individual student. Participants conducted two tutoring sessions daily. An integral part of the lesson plan was recording the child's performance on each of the academic and social skills.

One of the chief criticisms of the two previous workshops had been the lack of opportunity for "normal" experiences (i.e., working with a group of children). During the 1972 summer workshop participants were required to teach two group lessons (one in reading, one in arithmetic) for all the children in the team (10-14). The group lessons had to be based on assessment information and individualized to at least three levels of instruction. Appendix G provides two examples of a group lesson plan. Team leaders were available to assist participants in planning their group lessons. Participants were required to put the group lesson plans on a ditto and distribute copies to each team member. A portion of the morning team session prior to the group instruction was spent in reviewing the lesson plans for that morning's demonstration.

The final team requirement for workshop participants was the completion of two observation reports per day for each of the group demonstrations. The observation reports, collected by the team

leaders, served two purposes: 1) They provided participants with experience in discriminating and specifying characteristics of good and poor instruction; 2) They helped to define any problems participants might be having in understanding basic concepts. Appendix H contains an example of a completed participant observation form. These forms were identical to the ones used by team leaders to record observations during tutoring sessions and to provide feedback to team members.

The increasing importance of feedback--Summer 1972

The use of the participant observation form served as the basis for a larger effort to incorporate into the workshop a program of immediate and accurate feedback as proposed in Guideline 4.0 of the author's training model (see Appendix A). Team leaders observed each participant as often as possible, noting both positive and negative aspects of a lesson. Experienced team leaders were able to translate the observation information immediately and complete the form following these guidelines: 1) Start with a positive comment; 2) End with a positive comment; 3) Try to make two to three times as many positive comments as suggestions for improvement; and 4) Phrase negative comments in positive terms whenever possible. Usually the written observation provided sufficient feedback to enable the participant to implement the suggestions before the next observation period. Occasionally, however, team leaders were required to use individual conferences to reinforce the written suggestions or to correct serious skill deficits.

Both team leaders and participants served as a source of feedback to team members teaching group lessons. During the morning team sessions teaching participants reviewed their group lesson plans. The team leader utilized the review to provide non-teaching participants with a "set" for focusing on critical points in the group demonstration. The team leader also provided feedback, reinforcing concepts mastered and suggesting improvements. The team leaders summarized all the observation reports completed by the observing team members and returned one summary report to each teaching participant during the afternoon team meetings. Part of the afternoon team session was devoted to a self-appraisal by the participants who had taught that day. Observing participants were also encouraged to offer specific positive comments and suggestions. Unlike previous workshops, feedback provided during these sessions was both immediate and specific to the participant.

Team leaders also provided feedback on the third team requirement -- the completion of participant observation forms by the non-teaching participants. After reading the individual forms, team leaders rated each one based on the following criteria: 1) the number of observations; 2) the accuracy of observations; 3) the specificity of observations; and 4) the presence of both positive comments and suggestions for improvement.

The evolution of the team leader role

The implementation of the author's in-service model to effect the changes described in the preceding sections considerably expanded the role of the team leaders. Figure 3.2 compares the extension of team leader responsibility and the development of the summer workshops. In previous workshops the team leaders were charged with supplementing the presentations by university consultants and providing suggestions for applying the procedures and techniques discussed in the lectures. Feedback was generally specific, but not directed to individual participants. Modifications to the original model extended these instructional responsibilities to include the following concerns.

1. Team leaders began to demonstrate the application of concepts and techniques with the children in the team. These demonstrations were instituted when team leaders were given total responsibility for implementing the group instruction requirement during the 1972 workshop. No curriculum or training materials were available for teaching this component to participants, and the team leaders felt that the demonstrations would provide the team members with a good model upon which they could base their group instruction. Team leaders usually scheduled strong participants for early group sessions. This tactic not only provided additional models for the other members, but also gave the stronger participants an opportunity to attempt more complicated group techniques (i.e. behavioral rehearsal, visual imagery) in their second demonstrations. As

Time Periods	Summer 1970	Summer 1971	Summer 1972	Summer 1973	Summer 1974
Team leader pre-training	Knowledge of behavioral concepts and reinforcement.	1. Knowledge of behavioral concepts and reinforcement. 2. Experience in application of concepts in workshop situation.	1. Knowledge of behavioral concepts and reinforcement. 2. Experience in application of concepts in workshop situation.	1. Knowledge of behavioral concepts and reinforcement. 2. Experience in application of concepts in workshop situation.	1. Knowledge of behavioral concepts and reinforcement. 2. Experience in application of concepts in workshop situation. 3. Completed formal training in the assistant team leader program.
The role of the team leader	1. Lectured to participants on procedures and techniques. 2. Answered questions from participants. 3. Observed participants--provided general feedback. 4. Monitored completion of functional assignments. 5. Handled much non-instructional administrative detail.	1. Answered participants' questions when asked. 2. Observed participants--provided general feedback. 3. Monitored completion of functional assignments. 4. Handled many minor administrative duties. 5. Began to hold occasional informal team meetings.	1. Began to hold pre-workshop meetings to discuss topics and procedures. 2. Included formal team meetings in agenda. 3. Gave limited presentations during team meetings. 4. Some began to give demonstrations with children. 5. Began to define functional assignments within Dr. Stephens' text and D-T kit. 6. Coordinated activities within team. 7. Began to provide individual and specific written feedback immediately following observation period. 8. Moved toward coordination between teams--senior team leader. 9. Responsible for some administrative detail.	1. Conducted pre-workshop meetings to set agendas and revise modules. 2. Responsible for functional assignments. 3. Gave presentations during team meetings based on Dr. Stephens' text and D-T Kit. 4. Coordination between teams increased--senior team leader role strengthened. 5. Demonstrations with children were required. 6. Coordinated activities within team.	1. Responsible for most instructional sessions at the workshop. 2. Increased demonstrations with children. 3. Responsible for providing structured feedback to participants. 4. Responsible for obtaining instructional materials. 5. Responsible for participants' mastering concepts. 6. Coordinated activities within team. 7. Responsible for educational experiences of children. 8. Component coordinator role established.
The development of the summer workshop	1. University personnel responsible for instructional content. 2. Reinforcement concepts had to be retaught. No opportunity to apply in Phase 1. 3. Functional assignments were general. 4. Concepts were applied in tutoring situations and parent conferences.	1. University responsible for instructional content. 2. Functional assignments were general. 3. Concepts were usually applied in tutoring situations and parent conferences. 4. Limited group demonstrations by selected participants.	1. Author's in-service guidelines informally developed and applied. 2. Added group instruction requirement for each participant. 3. Field personnel had more input instructionally. 4. Curriculum materials made available to participants. 5. Team activities assumed more structure. 6. Feedback became specific and immediate. 7. Participants were taught observational skills. 8. Formal presentations limited. 9. Functional assignments specified. 10. Senior team leader role evolved. 11. Conducted limited field test of assistant team leader program.	1. Some disagreement between university and field personnel regarding curriculum. 2. Field personnel chiefly responsible for agendas and module revision. 3. Functional assignments designated by field personnel. 4. Lectures became more difficult to coordinate with team assignments. 5. Coordination of assignments between teams. 6. Formal field testing of assistant team leader program. 7. Formal field testing of Precision Speech module in Northcentral Region. 8. Failure of other regional workshops--increased request for more on-site workshops. 9. Realization of need for evaluation. 10. Became apparent that workshop model could serve as a dissemination model for skills. 11. Attempted use of teacher competencies.	1. Instructional content became a large responsibility of team leaders. 2. First formal administrative structure. 3. Introduction of creative advertising. 4. Use of workshop manuals with all agendas and back-up materials. 5. The addition of the Applied Supervision module. 6. Component coordinator for each module. 7. Separate team meetings by module. 8. University personnel viewed as innovators in design and management of workshops with team leaders used as instructional specialists. 9. University consultant role--provide assistance, suggestions, new ideas. Ability to observe and suggest without constraints, changes for translation of theory into practice. 10. Provision for separate evaluation team headed by university consultant. 11. Involvement of Special Education Resource Centers (SERRC's) increased. 12. Recruitment of out-of-state personnel aimed at future dissemination of the model.

team leaders realized the instructional value of the demonstrations with children, they bagan to apply this technique to reinforce other concept areas covered in the workshop. In the 1973 summer workshop, team leaders were required to give demonstrations with children. Workshop evaluations and recommendations indicate future workshops would benefit from an even wider utilization of these demonstrations.

2. With the availability of Dr. Stephens' text (Stephens, 1970), the Directive Teaching Kit (Stephens, 1971d) and the institution of regular team meetings, team leaders began to clarify functional assignments for the participants, using those materials to give specific instructions for completing the assignments. The team leaders also used both the morning and afternoon sessions to provide specific feedback to individual participants. This verbal feedback was in addition to the written feedback supplied immediately following the observation period.

In addition to increased instructional responsibilities, team leaders also assumed several administrative duties.

1. They organized the team rooms. The physical facilities were reorganized into individual instruction areas, a small group area, and an activity (reinforcement) area. Figure 3.3 represents a typical team classroom organization for the 1972 summer workshop. Team leaders also set up a job board and toy store, posted daily schedules and placed displays on the bulletin boards for the children. A participant bulletin board contained sample lesson

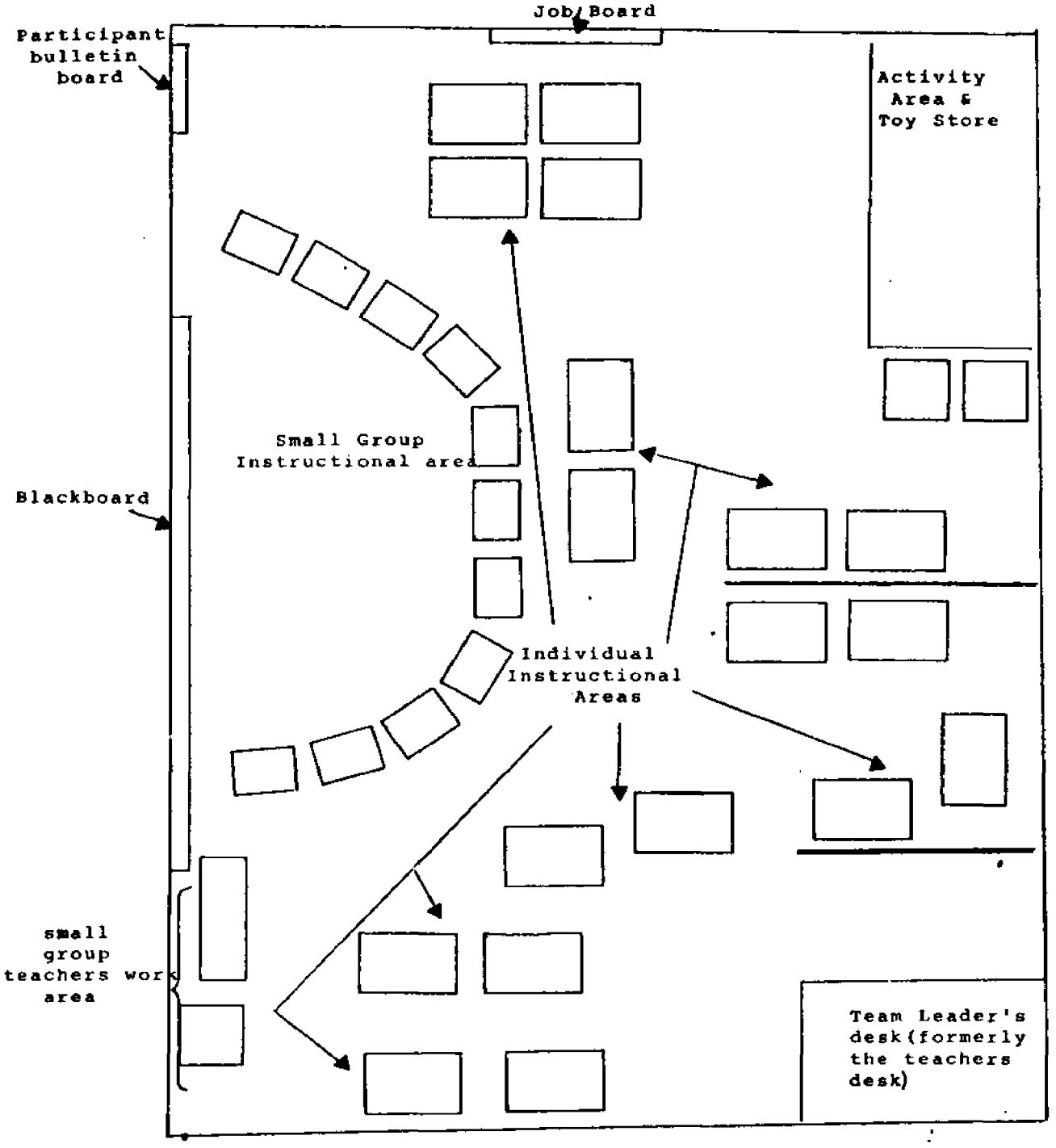

Figure 3.3. A typical classroom organization for the 1972 Summer Workshop

plans, observation reports, schedules, and announcements for participants. Team leaders had also scheduled various team duties (e.g. group lessons, playground management) and assigned a child to each team member.

After participants had been assigned to a team, the team leader distributed curriculum and training materials, reviewed the functional assignments and team requirements, and dealt with several administrative details (e.g. attendance policies, duty assignments).

2. As the team leaders assumed more responsibility for the instructional sessions, they initiated an attempt to coordinate activities and assignments between teams. Previously each team leader had worked independently to meet team requirements and complete functional assignments. As a result participants began to express negative attitudes regarding the lack of consistency within the workshop (e.g. different requirements for different teams, varying rates of completion). By the end of the 1972 summer workshop, the "senior" team leader role had emerged and the movement toward synchronization of activities between teams was well underway. Team leaders also began to meet during the school year to discuss workshop agendas for the following summer and to revise workshop modules to include new ideas and techniques.

The need for team leader training

Since most of the team leaders for the 1972 workshop had previous experience in that role, they usually had mastered the basic concepts and skills required to teach new participants. However

they had not received any formal training to prepare them to be team leaders. Ideas for improving instructional techniques (e.g. restating negative observations in a positive way) usually evolved through experience or were passed informally from one team leader to another. In addition to these factors, several new developments contributed to the limited field testing of an "assistant team leader training program" during the 1972 workshop. These new developments were:

1. The major innovations implemented as a result of the informal application of author's training model demanded more expertise from the team leaders. A thorough knowledge of basic Directive Teaching concepts was no longer adequate. Providing immediate and specific feedback that is positively stated is not an automatically acquired skill. Demonstrating individualized group lessons utilizing a complex technique (e.g. social modeling) required experience not only in teaching a group lesson to children but also in demonstrating to teachers the translation of a specific concept into practice. Since the team leader role had been complicated with the addition of these higher level competencies, recruiting field personnel who lacked experience as team leaders would have had a minimizing effect on the instructional quality of the workshop.

2. The importance of carefully delineating skill levels had been stressed by the author in his training model (Guideline 3.0, Appendix A). Since the team leader role now required utilization of higher level competencies, these skills necessarily had to be defined, with mastery of lower level skills being a prerequisite.

3. The workshop needed to involve new personnel in team leader roles in order to lend fresh approaches to instructional techniques and introduce innovative ideas.

The limited implementation of the assistant team leader training program was highly successful. The initial objective of the program had been to train field personnel to be team leaders. Not only did the program satisfy this objective, but both team leaders and participants realized that the skills taught were very similar to those required for supervision in the schools. As a result two experienced team leaders[4] coordinated an effort to define the skills required for an applied supervision module, to be formally field tested as an assistant team leader program during the 1973 workshop.

The attempt to utilize competency-based objectives

The success of the assistant team leader program presented the workshop staff with a problem they had not faced before--the development of a completely new module of instruction. In order to define the instructional content of the module, the team leaders involved were forced to verbalize skills they had only intuited before. The result of this effort was a huge volume of very specific criterion-referenced objectives, which were to serve as the curriculum base for the supervision module. Appendix I contains several examples of team leader competencies.

Being developed during the same time period was another lower level module termed Precision Therapy Techniques. The module was

[4]The Applied Supervision Module was cooperatively developed by Mrs. Judy Finnegan and Mrs. Penny Noyer.

designed to provide therapists with a methodology for utilizing behavioral concepts in conjunction with instructional approaches to serve children with speech and language problems.[5] Although many of the same basic skills currently being taught in the individualized instruction workshop would also apply to the precision therapy module, the developers also faced the problem of specifically defining the individual competencies they were already practicing. The basic skills they compiled were ready for formal field testing in 1973. Because of fiscal constraints in the Central Ohio region, the module was field tested in a separate workshop conducted in the Northcentral region with the cooperation of the local Instructional Resource Center coordinator.[6]

The field test of the new competency-based modules presented several unanticipated problems.

1. As team leaders attempted to build the workshop agendas, they found that sequencing hundreds of objectives to fit within the allotted time frame was an almost insurmountable task.
2. A tremendous amount of time and additional staff resources would be required to monitor the participants' progress in achieving mastery on the individual skills.
3. In working with children or teachers, participants were often required to use several of the specific skills concurrently; and

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[5]The Precision Therapy Module was cooperatively developed by Mrs. Kathy Gordon and Miss Gena Williams.

[6]Mr. Ronald Boley, who was at that time the IRC coordinator in the Northcentral Region, was instrumental in successful implementation of the speech module.

team leaders who were evaluating performance experienced a great deal of difficulty in counting two or more behaviors at the same time.

4. Most participants would not take time to read the huge volume of skills.

5. Team leaders observing the same skill often could not agree on the expected performance without conferring with each other. Simply reading the objective still allowed for some subjective judgement.

6. Even though the skills were very specific, team leaders found that still more specific skills would always be possible. They also found that they could not possibly conceive of every contingency that would arise as a skill was being practiced.

7. The individual objectives were not of equal weight. Counting the number of skills mastered often did not give team leaders an accurate indication of the participants' performance. For example, mastery of nine of ten skills would appear to be good performance; however if the tenth skill required an integration of several of the other nine concepts, the 90% mastery achieved would not be a true measure of performance.

8. The team leaders realized very early in the workshop that a disproportionate amount of their time was being spent evaluating the objectives. As a result, little time remained for helping participants to learn and for providing them with feedback. Therefore the team leaders began to reject the direct application of the competencies, referring to them only occasionally and utilizing

them chiefly as guidelines. As the workshop progressed, the staff began to realize that the functional training they were providing was the most important factor in insuring participants' mastery of new skills. As a result of the above implementation problems the use of competency based objectives was rejected as a viable instructional tool. Their value as an evaluation measure still seemed uncertain.

The 1974 Combined Summer Workshop

The 1974 summer workshops were introduced to Ohio school personnel through the mass distribution of descriptive brochures by the ten participating Special Education Regional Resource Centers in cooperation with The Ohio State University, Faculty for Exceptional Children. The workshop was comprised of four inter-related modules. Three had been developed before and have been described previously. They were: 1) An extension of the "Breakthrough" summer workshop entitled Individualized Instruction; 2) An extension of the assistant team leader program entitled Applied Supervision; and an extension of the previous speech workshop entitled Precision Speech. A module entitled Visually Impaired was developed independently by the Columbus Public Schools and the Faculty for Exceptional Children, under the author's guidelines, and was offered as the fourth part of the Summer Workshop. The modules were inter-related through common presentations; the Applied Supervision module was a Level two component in which those enrolled worked on assignments with participants from all lower level workshops. Appendix J contains an outline of the topics for each module.

The instructional procedures for implementing each module were an extension of those which had proved successful in earlier workshops and were described in detail above. The administrative management of the workshop, however, was significantly different than in previous workshops. Dr. Thomas M. Stephens served as the Executive Director of the workshop, through a formally developed administrative structure. Figure 3.4 shows the table of organization for the 1974 workshops. Appendix K contains brief job descriptions for the various workshop positions.

The adoption of a formal administrative structure greatly facilitated the daily implementation of the workshops. Team leaders were no longer interrupted during instructional sessions and observation periods to solve minor administrative problems. Since staff responsibilities had been clearly delineated, many problems which had been common during previous workshops (e.g. duplication of effort) were eliminated. The disagreements regarding workshop assignments and curriculum which had caused a dichotomy between university consultants and field personnel were largely resolved when both groups were recognized as being specialists in their fields. University consultants were viewed as innovators in design and management; their new responsibilities included an invitation to observe any workshop sessions without constraints, to provide both team leaders and participants with assistance and suggestions for change, and to facilitate the translation of theory

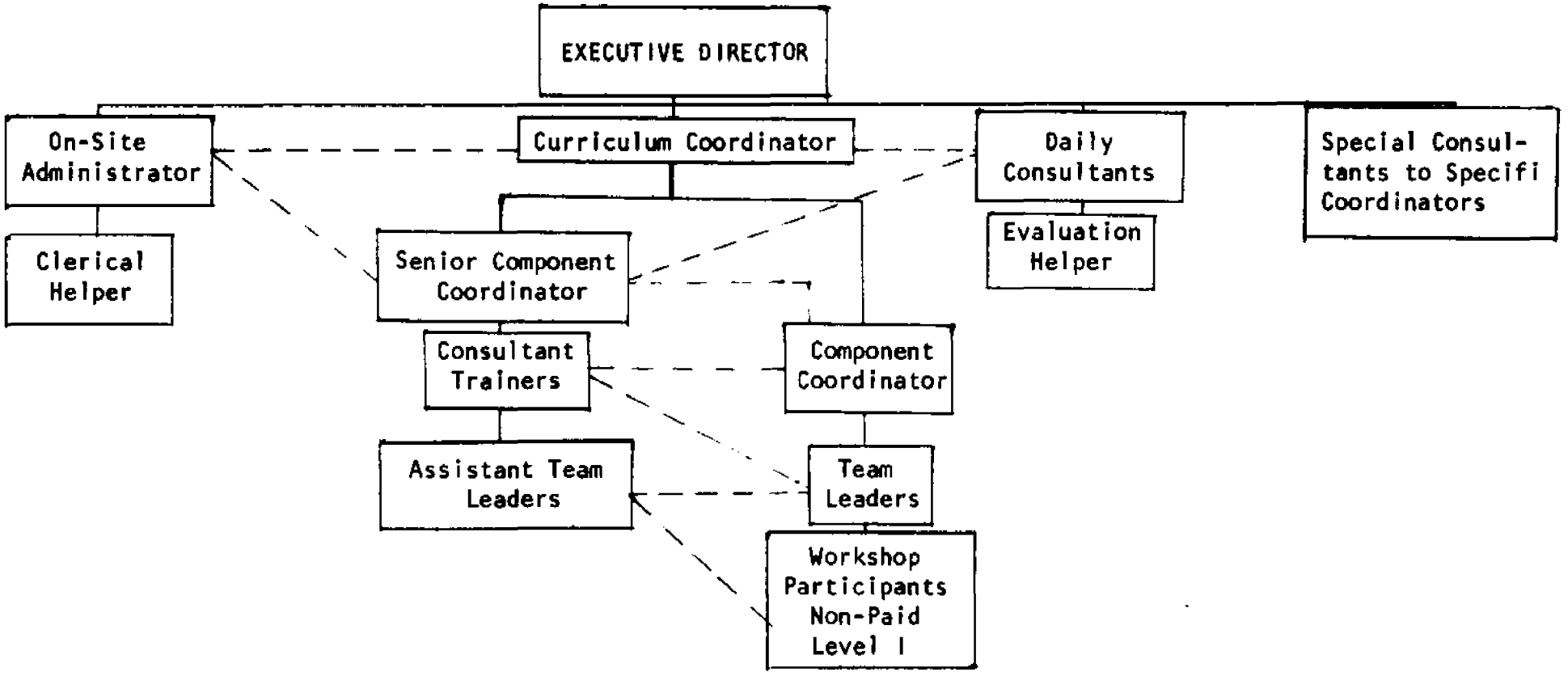

Figure 3.4. Table of organization for the 1974 combined summer workshops.

into practice. Team leaders remained chiefly responsible for providing demonstrations of instructional methodology, conducting team sessions, observing participants, and providing feedback.

Two major innovations were implemented during the 1974 sessions as a result of the 1973 experimental workshop.

1. The workshop administration invited several out-of-state educators to participate in the workshops in an effort to initiate wider dissemination of the in-service training model. The out-of-state personnel were trained in one of the modules and then were encouraged to revise the module to meet local needs.

2. An evaluation team working independently of the regular workshop staff conducted a formal evaluation of the 1974 workshop.[7] The evaluation team used several techniques to collect various types of data. The data collected included demographic data regarding instructional gains, and attitudinal data. The techniques used to collect data included tests, analysis of permanent products (e.g. assignments), questionnaires and the direct observation of participants in two randomly-selected individualized instruction teams. The direct observation of participants was accomplished through the use of two independent observers. Utilizing a stopwatch and clipboard, these observers maintained continuous records of team activities. The observers' performances were frequently monitored by the evaluation team leader. Observers began recording

[7]The evaluation team conducted their study under the direction of Dr. John O. Cooper, Associate Professor, The Ohio State University, who was the evaluation team leader.

at 8:30 and continued until 12:00. They began recording again at 1:00 and finished at 3:30. The specific types of data which were recorded and the results are related and summarized in Chapter IV.

CHAPTER IV

Results of Utilizing the In-service Training Model

The results of this field study are reported in three sections. The first section relates the results of previous field tests to inadequacies in the original in-service training model. In the second section, a summary of evaluation results are reported from formal evaluations conducted during the 1974 summer workshop. The third section utilizes the results of in-service practices, as reported in the literature, to project future trends in in-service training.

The purpose of the last two sections of this Chapter will be to provide a synthesis of the results as described above. The synthesis will take the form of: 1) recommendations for changes in the workshop and training model, and 2) delineation of specific questions which need to be validated through formal field research.

Inadequacies in the Original Training Model

The changes in the summer workshops, which were described at length in the previous chapter, highlight some inadequacies in the in-service training model as it was originally conceptualized. The purpose of this section will be to delineate those aspects of the original training model which appeared to be inadequate as a result of the summer workshop field testing.

Perhaps the most obvious inadequacy of the training model was its focus on specific competencies written in terms of behavioral objectives. Several implementation problems were described in

detail in the previous chapter. However, two of them are related and are particularly significant in terms of clarifying new training principles. They are:

1) The inability of team leaders to both evaluate performance in terms of competencies and provide instructional feedback. This problem seems to indicate that these activities were separate, each with a separate focus. The main focus of the former appeared to be workshop evaluation while the main focus of the latter appeared to be changing participant performance through providing immediate feedback.
2) The inability of team leaders to implement the specific objectives through just reading them and the need to confer with each other regarding expected performance. This problem also was identified in the review of the literature dealing with CBTE. Both seem to indicate that merely reading verbal descriptions of skills would not teach the observer the criteria of acceptable performance. What seemed to be needed was practice observing the actual performance with feedback regarding what was considered appropriate performance. These findings have important implication concerning the desirability of using written competencies as a means of disseminating effective training packages.

Another inadequacy of the original training model was that it really did not function as a theoretical model should be integrating lower level principles and guidelines into a single conceptual framework. Instead, as new principles began to emerge (e.g., operationalism) and established principles were refined, (e.g.

feedback and evaluation) they seemed to stand alone. Conceptually, what seemed to evolve from the original training model was a basic systems model (described in Appendix A) and a separate list of principles necessary for in-service training. These principles and the possible evolutionary changes in the training model are discussed in the next to the last section of this chapter.

Results of the Evaluations for the 1974 Summer Workshop

A formal evaluation was conducted by a three-member team (Cooper, et. al, 1974). Descriptions of the evaluation team and their operational procedures were provided in Chapter III. The evaluation consisted of four types of data: 1) direct observation of teacher performance by independent observers; 2) permanent products, e.g. tests or completed assignments; 3) demographic data; 4) responses on a final attitudinal questionnai Table 4.1 shows the groups for which the data were collected.

TABLE 4.1
Types of Form A Evaluation Data Collected by Group
1974 Summer Workshop

	Types of Data			
Groups	Direct Observation	Permanent Products	Demographic	Attitudinal
Two Team Random Sample-Individualized Instructional Module	Yes	Yes	Yes	Yes
Remaining Three Teams--Individualized Instruction Module	No	Yes	Yes	Yes
Entire Workshop (Four Modules)	No	No	Some	Yes

Samples of the above data were selected to answer the following research questions: 1) Has workshop time been used efficiently? 2) Has teacher performance improved within the workshop setting? 3) Have teacher attitudes toward the workshop been positive upon its completion?

Efficient use of workshop time was evaluated in several ways. One method was through utilizing independent observers to record productive and dead time in each of two randomly selected individualized instruction teams, using a stopwatch and recording form. These observers made a daily record of the amount of time spent in "productive activities and dead time". Observers recorded data daily from 8:30 - 12:00 AM and 1:00 - 3:30 PM. Productive activities were defined as time spent in team meetings, tutoring, group instruction, or group lectures. Dead time was defined as any time in which participants were not engaged in productive activities as well as time in between meetings in which participants were scheduled to be working. For example, if a meeting were scheduled to start at 1:00 and it started at 1:10, ten minutes of dead time was recorded. Specific definitions and a copy of the observation form may be found in Appendix L. Figures 4.1 and 4.2 indicate that for either team, the amount of dead time was minimal with the percentage of daily productive time sometimes above 90%. Figures 4.3 - 4.6 represent an expansion of the data in Figures 4.1 and 4.2 in order to compare how productive time was spent. Dead time is also included.

As the data show, slightly over one-third of the day usually

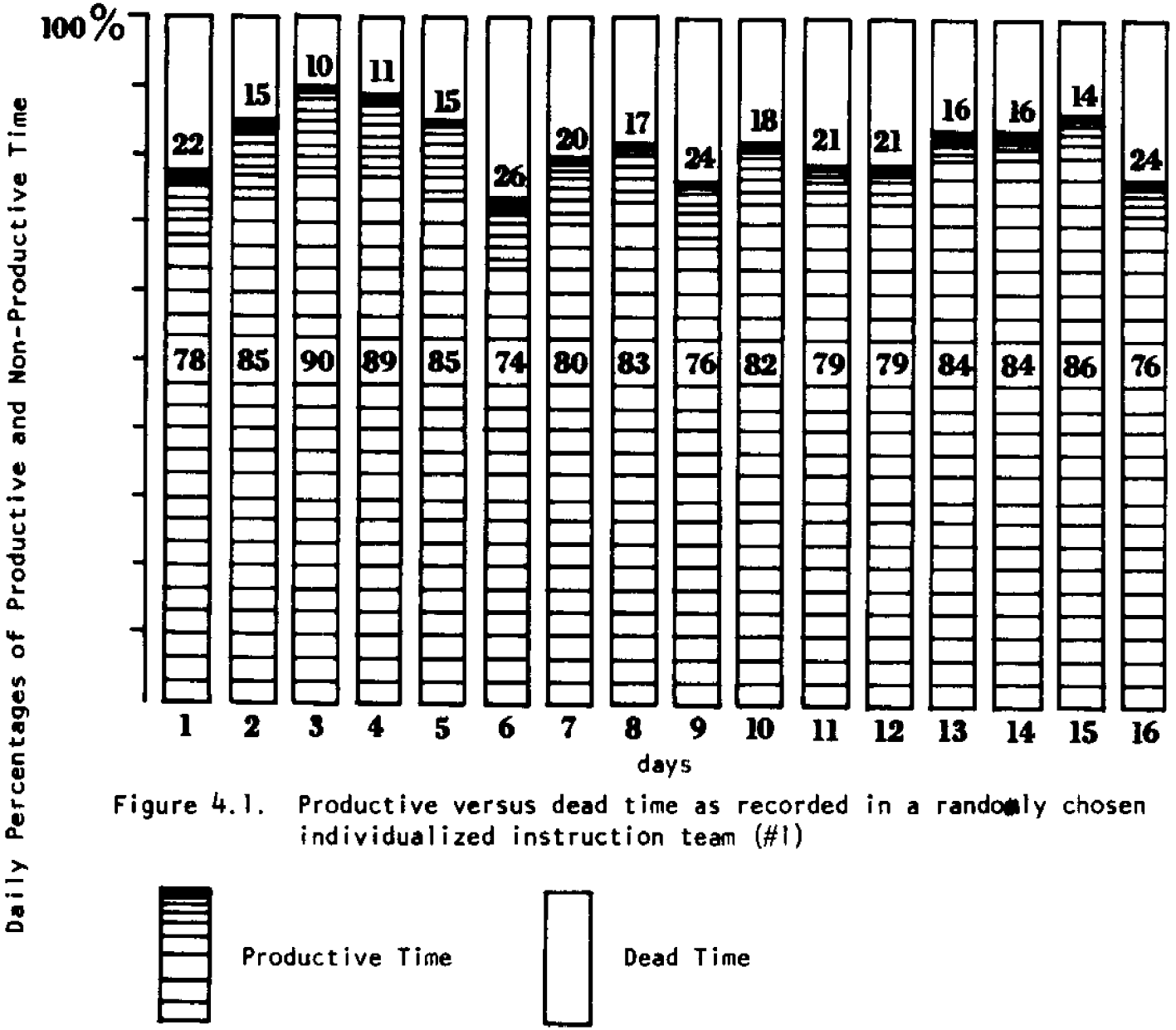

Figure 4.1. Productive versus dead time as recorded in a randomly chosen individualized instruction team (#1)

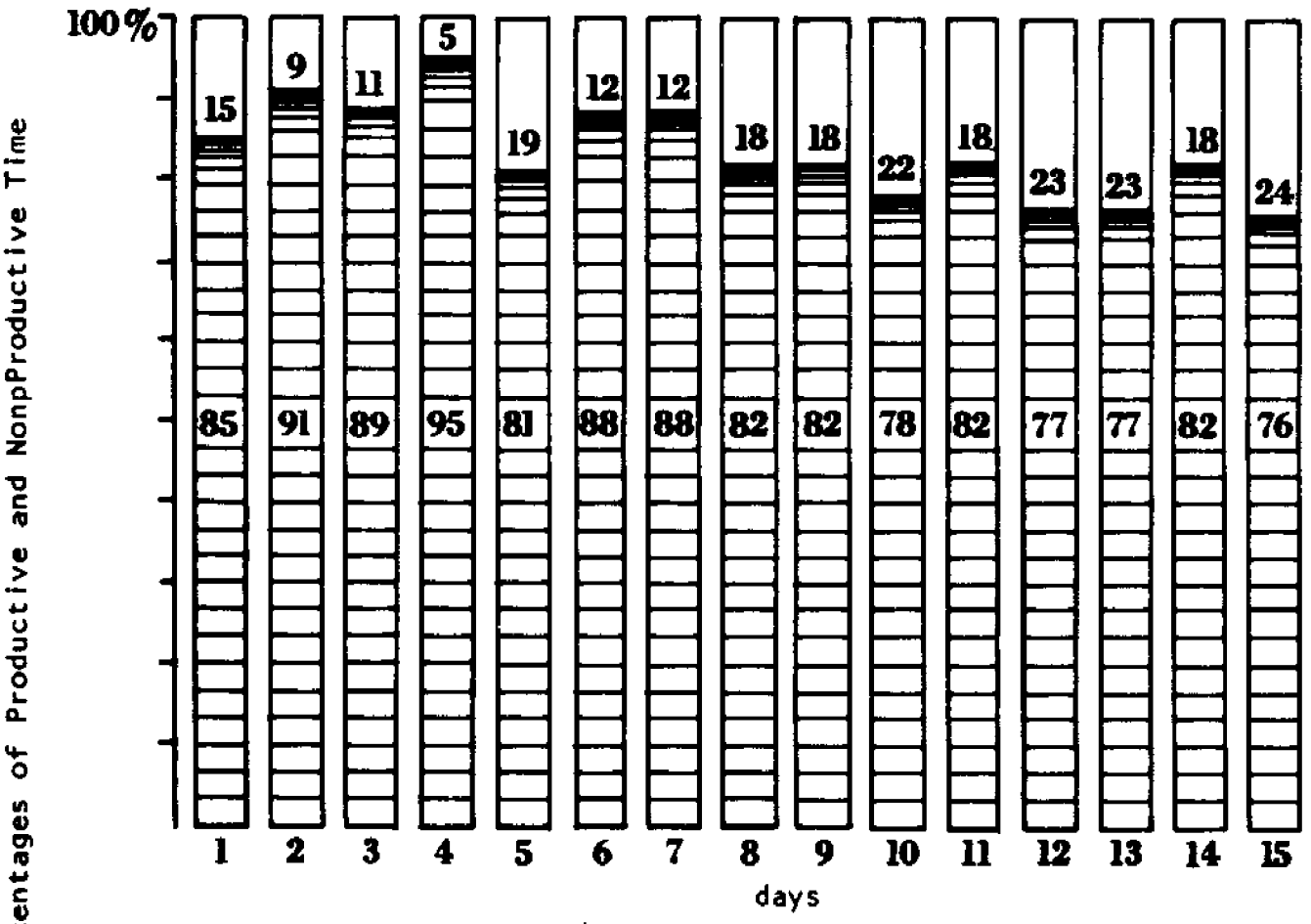

Figure 4.2. Productive versus dead time as recorded in a randomly chosen individualized instruction team (#2)

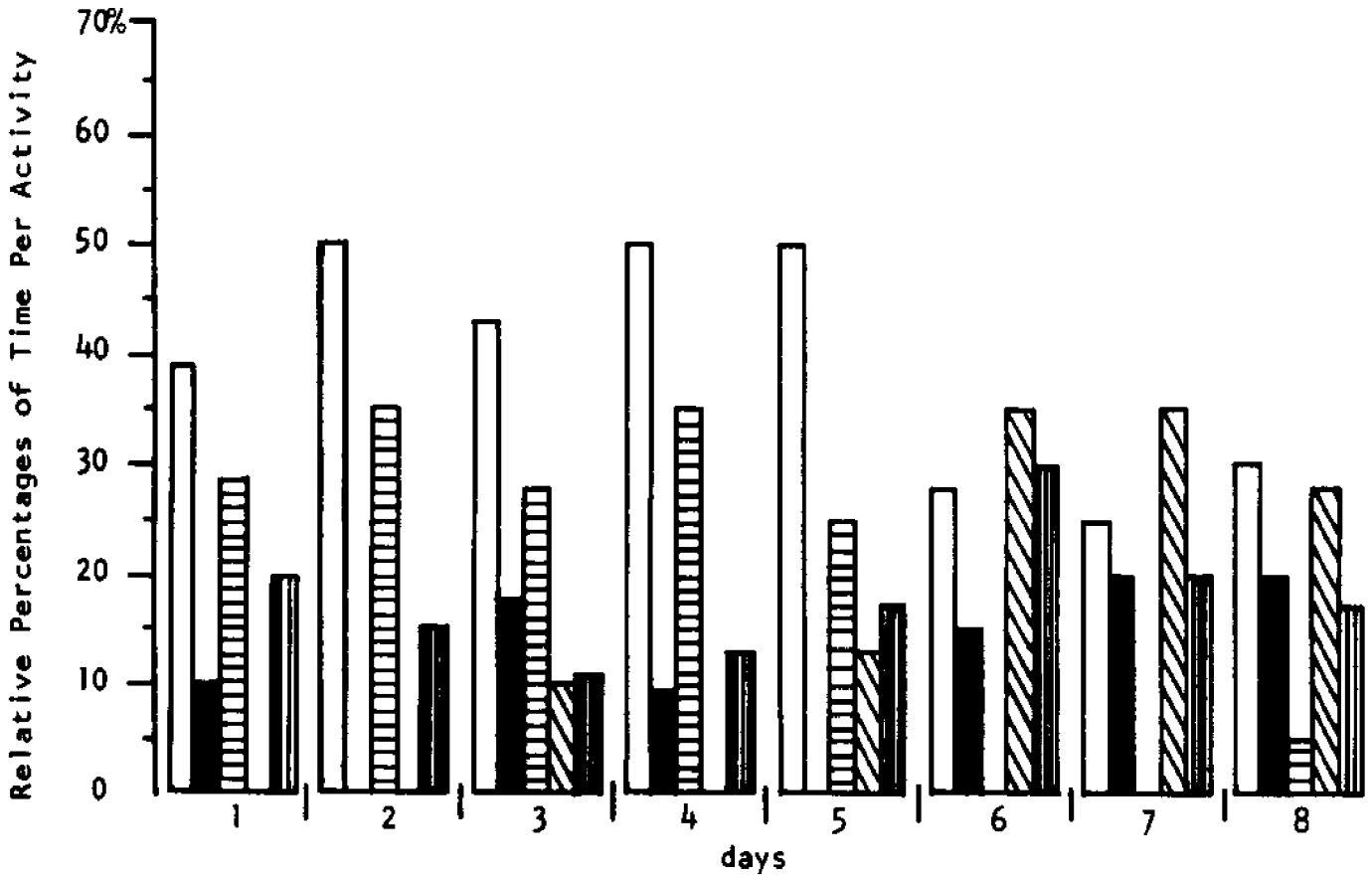

Figure 4.3. Comparisons of productive time activities as recorded in a randomly chosen individualized instruction team (#1) for days 1-8.

Team Meeting
Group Lecture
Tutorial Instruction
Group Instruction
Dead Time

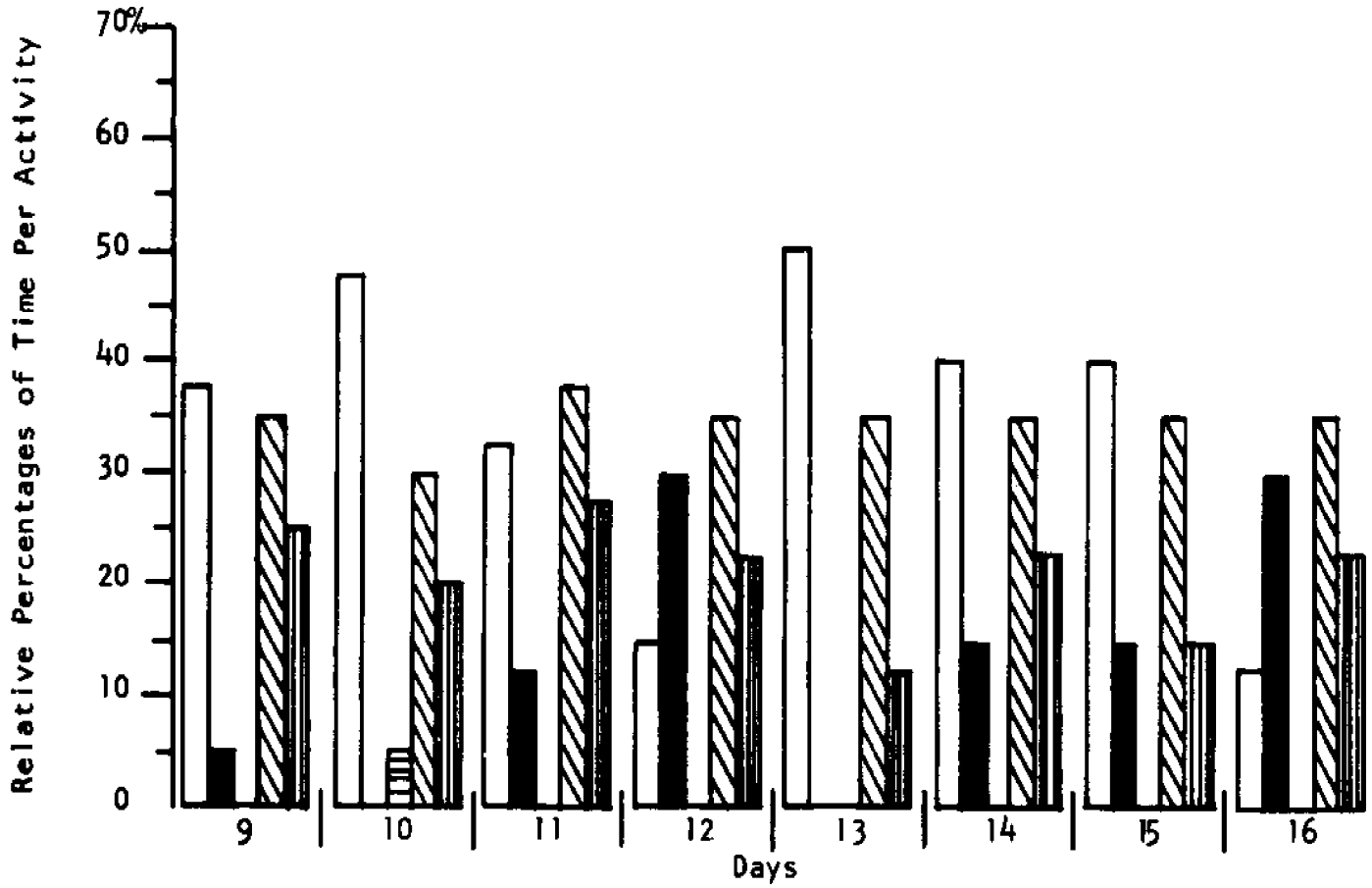

Figure 4.4. Comparisons of productive time activities as recorded in a randomly chosen individualized instruction team (#1) for days 9-16.

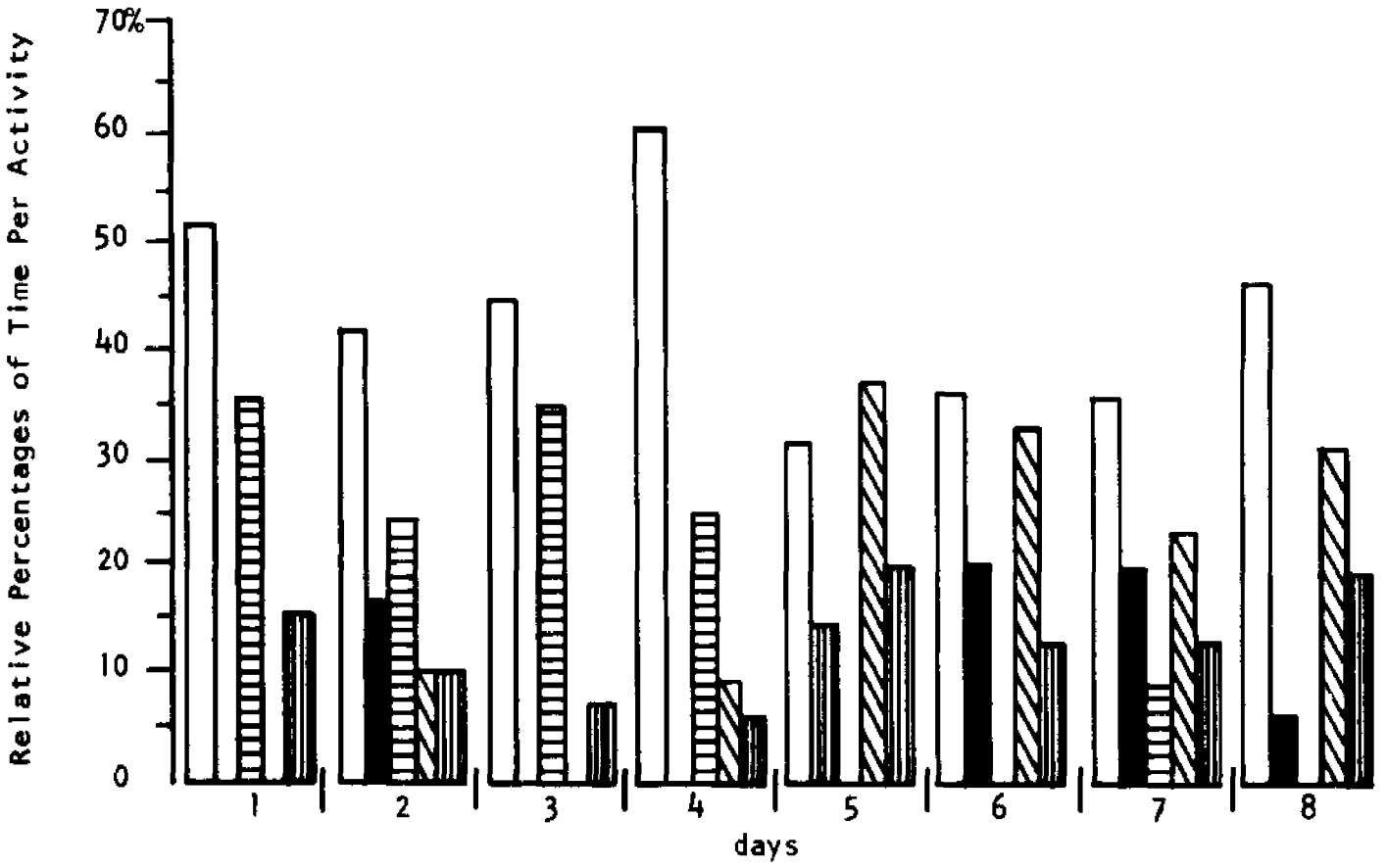

Figure 4.5. Comparison of productive time activities as recorded in a randomly chosen individualized instruction team (#2) for days 1-8.

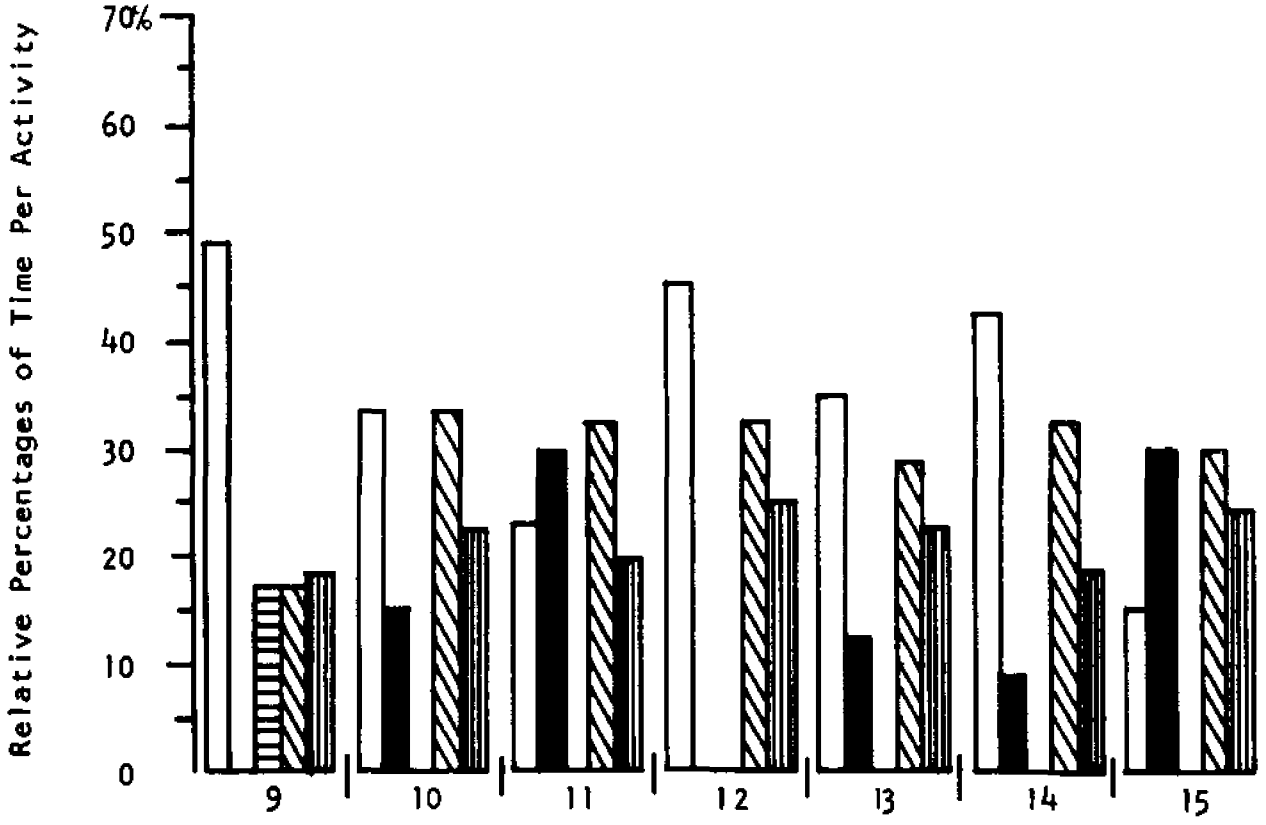

Figure 4.6. Comparisons of productive time activities as recorded in a randomly chosen individualized instruction team (#2), days 9-15.

Team Meeting
Group Lecture
Tutorial Instruction
Group Instruction
Dead Time

was spent in team meetings. Almost another one third of the day usually was spent in direct applications with children. This is especially significant since children were only available during the morning. Since a great deal of time had been spent in team meetings during previous workshops, it seemed advisable to try to determine the type and importance of the topics being discussed. In order to do this, independent observers were asked to tally the number of questions which were being asked in 13 different instructional topic areas during the team meeting. A copy of the observation form may be found in Appendix M. Figure 4.7 shows that almost one half of the questions related directly to one of the instructional topic areas while the other half feel into a category termed "other." Procedural questions and general instructional questions, not specifically related to one of the topic areas, seemed to be most common; for example, how to make up lesson plans, requirements for completion of assignment forms, or questions about assessment in general as opposed to those specifically related to reading or mathematics.

Attitudinal data also provide a means by which to evaluate workshop efficiency. These data were collected through the use of an open-ended questionnaire which was given to all participants on the last day of the workshop. The questionnaire contained eight items; and a copy may be found in Appendix N. Responses to questions two through eight were summarized for all workshop modules and are represented in Tables 4.2 to 4.7. Tables 4.4 and 4.5 provide data from which inferences can be drawn regarding the efficient use of workshop time. Table 4.4 reports participant responses

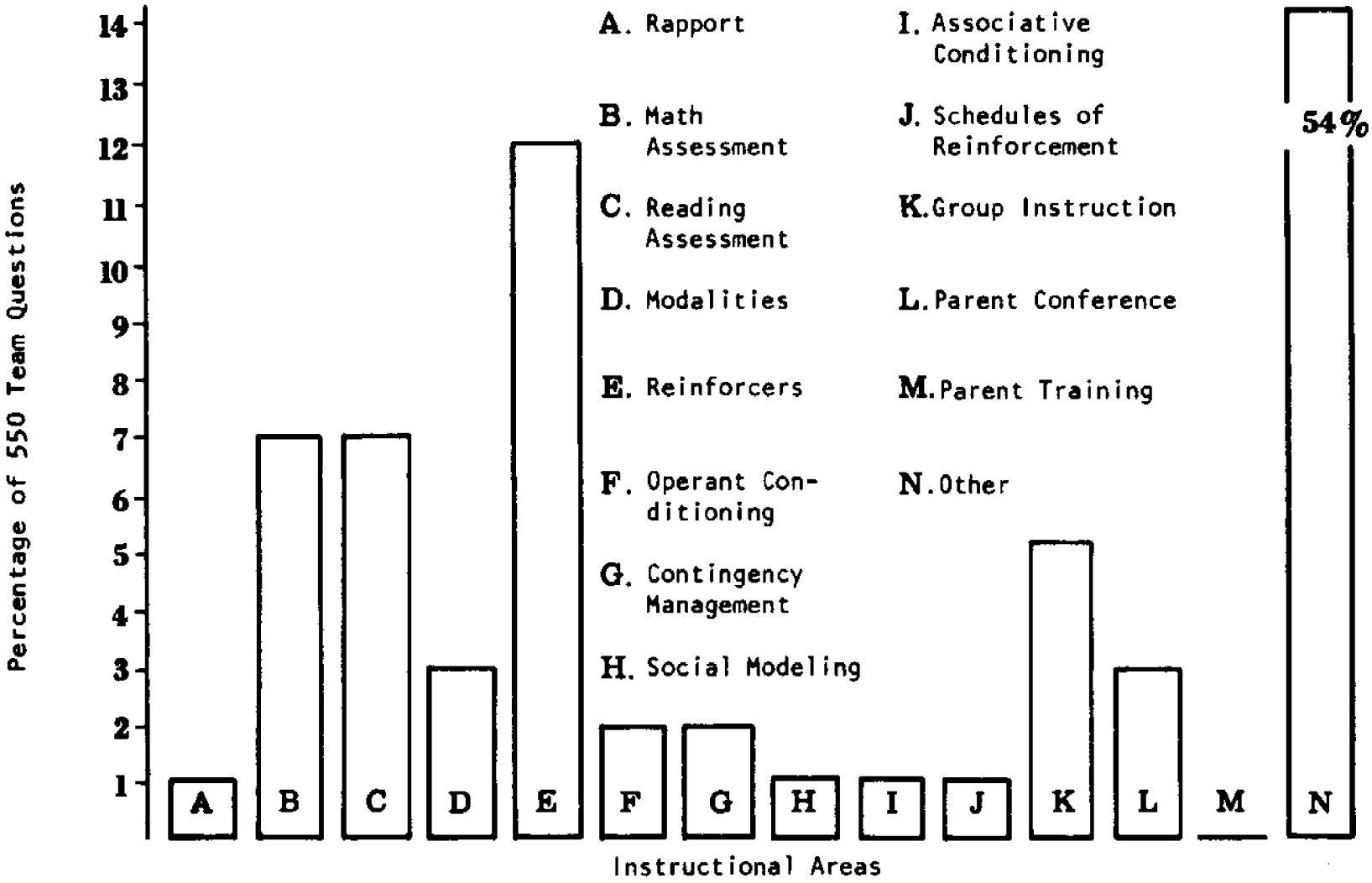

Figure 4.7. The frequency of participant questions by topic area as recorded in team meetings for two randomly selected individualized instruction teams.

TABLE 4.2

Attitude Question #2--Comparisons Between Workshop Modules

Attitude Question #2. Do you anticipate implementing any of the techniques presented in the workshop?

Workshop Module	Responses Received # Part./ Module	# Yes	# No	% Yes	% No	Typical Comments
Individualized Instruction	46	43	0	100	0	1. Yes definitely 2. Yes I plan to change my attitude
Precision Speech	24	24	0	100	0	1. Yes all of them 2. Yes using PR is the only way to go
Visually Impaired	11	9	2	81	19	1. Definitely yes 2. Yes will implement all techniques
Applied Supervision	24	24	0	100	0	1. Yes I will definitely use this approach 2. Yes immediately
Totals	105	100	2	98	2	

TABLE 4.3

Attitude Question #3--Comparisons Between Workshop Modules

Question #3. What did you like most about the workshop?

Workshop Module	# Part./ Module	Most Common Four Comments	# Part.	% of Total in Module
Individualized Instruction	46	1. Demonstration lessons and practicum	24	52
		2. Team leader	9	20
		3. Resource people	8	17
		4. Meeting new people	7	15
Visually Impaired	11	1. Resource people	5	45
		2. Demonstration lessons and practicum	4	36
		3. Small groups	3	27
		4. Team leader	2	18
Precision Speech	24	1. Demonstration lessons and practicum	13	54
		2. Small groups	6	25
		3. Team leader	5	21
		4. Resource people	3	13
Applied Supervision	24	1. Demonstration lessons and practicum	12	50
		2. Team leaders	8	33
		3. Resource people	3	13
		4. Observe teachers	4	16

TABLE 4.4

Attitude Question #4--Comparisons Between Workshop Modules

Attitude Question #4. What did you like least about the workshop?

Workshop Module	# Part./ Module	Most Common Four Comments	# Part.	% of Total # in Module
Individualized Instruction	46	1. Too many forms	12	26
		2. Final report	8	17
		3. Amount of work	5	11
		4. Team leaders	3	7
Precision Speech	12	1. Video tape presentations	12	50
		2. Team leader	2	8
		3. Late demonstrations	2	8
		4. Too much reading	1	4
Visually Impaired	11	1. Unstructured	5	45
		2. No outline	3	27
		3. Noise and location	2	18
		4. Lengthy behavioral objectives	2	18
Applied Supervision	24	1. Manual not available to everyone	3	13
		2. More time with students	3	13
		3. Lack of involvement with Level I teams	2	8
		4. Pre-test	1	4

TABLE 4.5

Attitude Question #5--Comparisons Between Workshop Modules

Attitude Question #5. Was sufficent time allocated to each training area? what training area needs more time? what area could be covered in less time?

Workshop Module	# Part./ Module	Responses Received # Yes	# No	% Yes	% No	Most Frequent Comment for Both More Time (MT) and Less Time (LT)
Individualized Instruction	46	18	18	50	50	(MT) Individual tutoring (LT) Reinforcement models
Precision Speech	24	14	7	64	33	(MT) Shaping lesson plans (LT) Using counters
Visually Impaired	11	9	1	90	10	(MT) Mobility work (LT) Writing behavioral objectives
Applied Supervision	24	15	3	84	16	(MT) Behavioral plan training (LT) Observational techniques
Total	105	56	29	66	34	

TABLE 4.6

Attitude Question #6--Comparisons Between Workshop Modules

Attitude Question #6. Would you recommend this workshop to other members of your profession?

Workshop Module	# Part./ Module	Responses Received # Yes	# No	% Yes	% No	Typical Comments
Individualized Instruction	46	37	7	84	16	1. Yes valuable to every teacher 2. Yes, however, expectations should be specified
Precision Speech	24	24	0	100	0	1. Definitely yes 2. Yes
Visually Impaired	11	10	0	100	0	1. Yes 2. Definitely
Applied Supervision	24	23	1	96	4	1. Without reservation 2. Yes
Total	105	94	8	90	10	

TABLE 4.7

Attitude Question #7--Comparisons Between Workshop Modules

Attitude Question #7. Compared to other workshops, university courses, and in-service would you rank this workshop as: 1) excellent, 2) good, 3) average, 4) fair 5) unacceptable

Workshop Module	# Part./ Module	Responses Received									
		Excellent		Good		Average		Fair		Unaccept.	
		#	%	#	%	#	%	#	%	#	%
Individualized Instruction	46	30	68	10	22	0	0	4	10	0	0
Precision Speech	24	22	96	1	4	0	0	0	0	0	0
Visually Impaired	11	6	75	2	25	0	0	0	0	0	0
Applied Supervision	24	20	87	3	13	0	0	0	0	0	0
Totals	105	87	79	16	17	0	0	4	4	0	0

which indicate that in two modules time may not have been utilized as efficiently as possible, i.e., the Visually Impaired and Individualized Instruction modules. Responses within the Individualized Instruction module indicate that the amount of paperwork was excessive. The most frequent two responses by 43% of the participants reflected this fact; i.e. "too many forms" and the "final report." The responses within the Visually Impaired module imply more serious problems; i.e., disorganization and lack of structure. No responses of this type were reported for any of the other modules. Table 4.5 indicates that about two-thirds of the people felt that enough time was devoted to each training area. Responses for the Individualized Instruction and Precision Speech modules, however, suggest that the amount of time spent on some topic area needs to be adjusted.

In conclusion, both observational and attitudinal data indicate that time within the workshop was being used efficiently for three of the four modules (i.e., Individualized Instruction, Precision Speech, and Applied Supervision). It appears, however, that some topics were over-or under-emphasized in the Precision Speech and Individualized Instruction modules. Attitudinal data also suggest that the amount of paperwork was too great in the Individualized Instruction module.

The second research question to be answered concerns whether teacher performance improved within the workshop setting. Both direct and indirect measures were used to assess changes in teacher performance. As a direct measure of changes in teacher performance, two observers were randomly assigned to observe tutoring sessions in

two Individualized Instruction teams. Their roles were to record both teacher and student behavior. Using a stopwatch and clipboard, data were recorded for 10 minute periods at 10 second intervals within several specified teacher and student behavior categories. A copy of the observation code and an observation form are in Appendix O. Each participant was observed individually on a rotating schedule. Approximately four observations per participant were recorded. Figures 4.8 and 4.9 indicate the daily results of these observations for four teacher behaviors. Clear trends toward the increased use of positive consequences and the increased number of instructional interactions are suggested by both figures.

An indirect measure of improved teacher performance was the number of workshop assignments which were completed. Even though assignments were written responses about assessments and teaching procedures, they reflected observed teacher performance gains. In order for a teacher to complete any written assignment, he was required to engage in various instructional activities (i.e. functional assignments) with children or parents. During these assignments, teachers were observed by team leaders and were provided with frequent written feedback. This process was described in detail earlier in Chapter three, however, the important factor is that teachers were not permitted to complete written assignments until appropriate instructional performance was observed by the team leader. For example, a teacher was not permitted to complete the written assignment which requires an academic assessment for a child until she had been observed properly conducting the academic assessment. Team leaders maintained a checklist of the

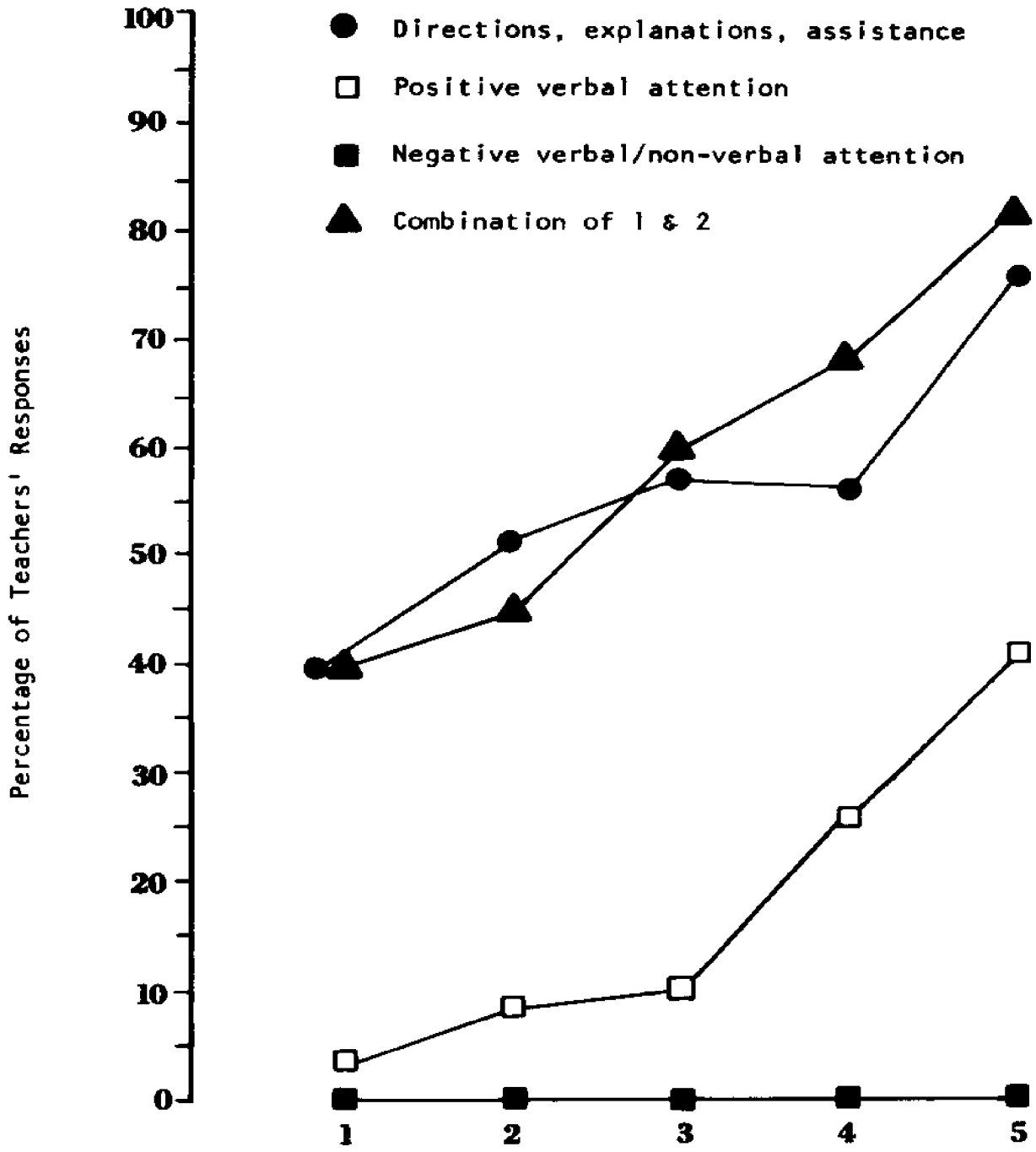

Figure 4.8. Types of teachers' attention responses as observed during a tutoring session in a randomly selected individualized instruction team (#1).

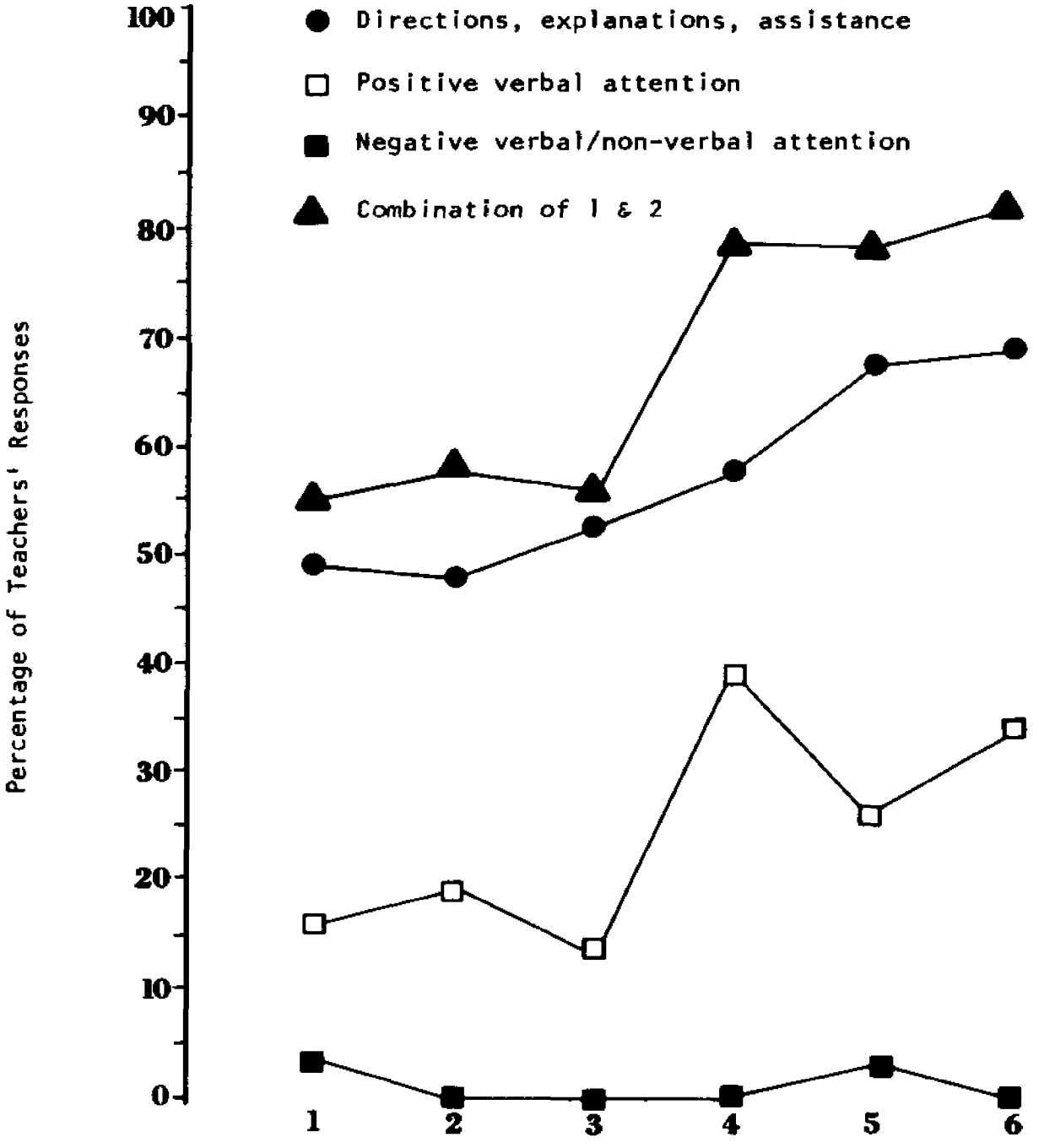

Figure 4.9. Types of teachers' attention responses as observed during a tutoring session in a randomly selected individualized instruction team (#2).

approved assignments for each teacher and the date when they were completed. Appendix P contains a copy of the assignment checklist form for the Individualized Instruction module. These forms were collected following the workshop from all teams in the Individualized Instruction module and were summarized to obtain the total number of assignments completed. Out of a total of 833 possible assignments for the 46 participants, 760 (91.2%) were recorded as completed. A wide variance in assignment completion dates was noted both between teams within this module, and within teams. A variance of 4 or 5 days was common and in one case of variance of 11 days was noted between the time when one team member completed the assignment and when it was completed by another member of the same team.

Pre- and post-tests were given in all workshop modules except the Visually Impaired module. Results for the Individualized Instruction module were monitored for evaluation purposes. In the Individualized Instruction module, the same 18-item test was used as both a pre- and post-test. Appendix Q contains a copy of the test. It was given at the beginning and end of the workshop by the evaluation team. Table 4.8 shows that the results of the pre-test were extremely high with an average across all teams of 89%.

Table 4.8
Pre- and Post-Test Scores by Team for the Individualized Instruction Module

	TEAMS				
Average Scores	#1	#2	#3	#4	#5
Pre-test Scores	15	16	15	16	16
Post-test Scores	17	15	16	17	18

It seems unwarranted to attempt to draw any conclusions from this data, since it is very likely that the test was inadequately constructed to measure workshop gains.

Attitudinal responses in Tables 4.2 and 4.3 also may be used to infer improvement in workshop performance. Table 4.2 shows that 98% of the workshop participants plan to implement techniques learned in the workshop. The typical teacher responses on this open-ended question seem to indicate that participants have gained new performance skills which they plan to utilize in their job settings. Table 4.3 also gives an indication of performance gain. It shows that in every module except Visually Impaired at least 50% of the participants responsed that performance activities were the most valuable aspect of the workshop. This high response is especially significant since the question was open-ended.

In conclusion, direct observational data, records of completed assignments, and attitudinal data suggest that teacher performance improved during the workshop. Records of completed assignments, however, suggest a wide variance in the rate of improvement within and between teams in the Individualized Instruction module.

The third question to be answered concerns whether teacher attitudes were positive at the completion of the workshop. Two items on the attitude questionnaire were designed to answer this question. They were: "Would you recommend this workshop to a professional colleague?" and "How does this workshop compare to other in-service training?" Tables 4.6 and 4.7 indicate a summary of the responses to these questions. Table 4.6 shows that three of the modules receive "Yes" responses of between 96% and 100%. The

Individualized Instruction module receive 84% positive comments. An analysis of typical negative comments indicated that too much work was required, especially paper work, and a lengthy final report. This is also reflected in comments in Table 4.4. Table 4.7 indicates that the participants in both the Precision Speech and Applied Supervision module rated their workshops higher than the participants in the Individualized Instruction or Visually Impaired modules. It should be noted that only 8 out of 11 people in the Visually Impaired module responded to this question. Ratings may have been different had all participants responded. Table 4.4 also provides an indication that a high percentage of participants in the Visually Impaired module had concerns about workshop organization and structure.

In conclusion, attitudinal data indicates that people from the Precision Speech and Applied Supervision workshops left with extremely positive attitudes. Those in the Visually Impaired and Individualized Instruction modules rated the workshops slightly lower but for the most part also left with very positive attitudes. It appears that most of the lower attitude ratings in the Individualized Instruction module were due to too much paperwork; those in the Visually Impaired module seem to stem from more serious problems related to the basic curriculum and structure of the workshop.

Possible Future Trends in In-service Training

The current literature dealing with in-service training, as described in detail in Chapter II, suggested four probable future trends.

1) The trend toward in-service education as a major focus of the next decade. Chapter two suggested several factors which pointed to this prediction. The first factor was the need for in-service training due to: a) changes in methodology and technology, b) new approaches to subject matter, c) new programs and innovations, d) inadequacy and unevenness of prior preparation, and e) the changing role of the teacher. The second factor, and perhaps the most important one, was the desire on the part of teachers to have practical and meaningful in-service training designed to meet their needs. Teachers' desire for in-service training certainly was reflected from several vantage points in the above literature review; e.g. a) statements of teacher priorities from teacher professional organizations, b) state and national surveys of teacher priorities and c) a report of a National Teachers' Task Force commissioned by the U.S. Office of Education to provide recommendations for the improvement and reform of American education. A third factor which pointed toward the trend for in-service training as a major focus of the next decade was the improved ability to deliver field based in-service training. The second chapter pointed out that historically both university and public school in-service training fared badly with teachers. However, Chapter two continued to point out that the situation was changing and both groups were developing the principles and techniques to enable them to provide teachers with in-service training which met their needs. A last factor which

has certainly influenced the likely importance of in-service training over the next few years was the teacher surplus and decreasing undergraduate college of education enrollments. Chapter II indicated that this potential in-service training "market" could play an important part in the survival of many existing programs.

2) The trend toward teachers having a much more significant role in designing and implementing in-service training, probably through some sort of teacher center. The evolutionary treatment of in-service training provided in the above literature review has pointed out the failure of both traditional university and public school in-service to meet teachers needs. The traditional superior/subordinate training role relationship was documented, as well as teachers' extreme bitterness toward functioning as 'the nigger' of the system (Pilcher, 1973, p. 341). Chapter two pointed out that these factors, coupled with the growing power of teacher organizations and their recent attempts to control licensing, were a serious threat to purveyors of traditional in-service training. The literature review also indicated that another factor in predicting a more significant in-service role for teachers was the emergence, rapid growth, and popularity of regional teachers' centers would continue to remain with the current educational establishment or shift to teacher professional organizations. The key factor, however, appeared to be whether the existing educational establishment

could change to meet teacher needs and reduce the current level of teacher dissatisfaction with traditional in-service training approaches.

3) The trend toward the rejection of the principle of Competency Based Teacher Education (CBTE) as a significant factor in implementing or disseminating in-service training technology. In Chapter II in-service training principles were reviewed in terms of their evolution from deductive or inductive theories. The principle of CBTE was found common to only deductive theories reported in the literature. Perhaps because of its compelling logic it was widely advocated as a practice in these deductive theories. Of the extensive number of articles reviewed only one actually dealt with the implementation of on-the-job skills using CBTE. Even though the study described implementation procedures and evaluation measures, both of these were limited and unclear and the authors were cautious in predicting future developments in CBTE. The possible use of CBTE as an evaluation measure in conjunction with observational techniques is discussed in the next section of this chapter.

4) The trend toward the retention of the basic systems approach to in-service training, as well as those other in-service training principles which have proven successful, with a view toward an integrated pre-service/in-service program. One of the strongest concepts to emerge from the above review of literature was the principle of a systems approach to in-service training embodying the elements of assessment, planning, implementation and

evaluation. The systems approach evolved as the most common principle from both inductive and deductive theories. In addition, several other successful principles of in-service training were also supported in the literature as methods through which traditional in-service approaches were likely to be improved. These principles were a) feedback, b) step by step sequencing of materials within an in-service package, c) individual pacing, d) operationalism, e) functionalism and f) multi-level evaluation. Another concept which stood out in the review of the literature was the concept of an integrated pre-service/in-service program as a means of successfully implementing the above principles. Figure 4.10 is a schematic representation of this concept. This concept

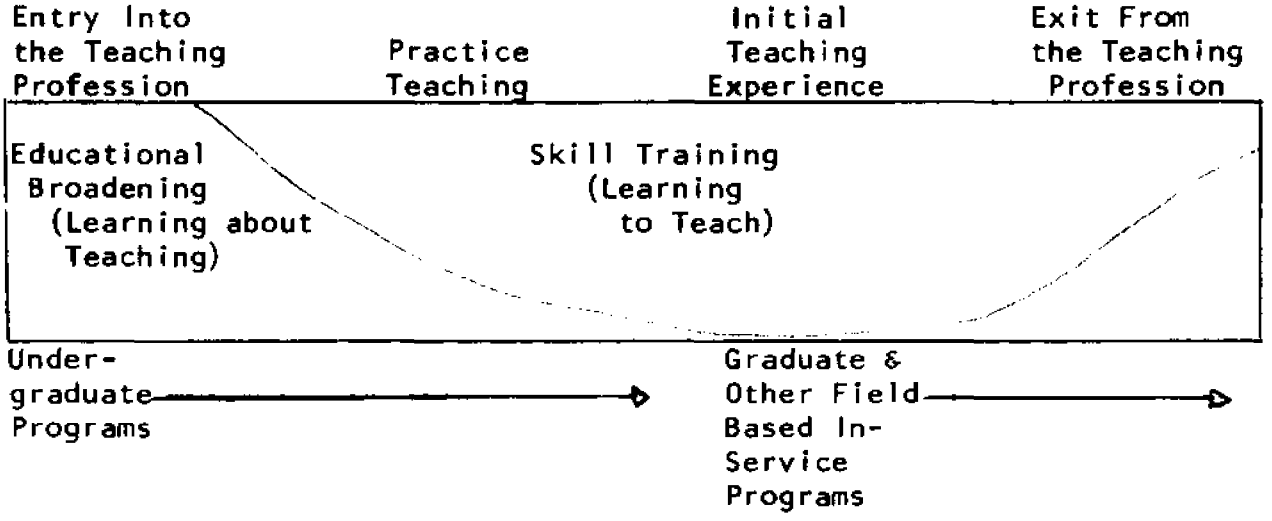

Figure 4.10 Teacher preparation as a continuum with the integration of pre-service and in-service programs.

was largely reported in the theoretical literature; however, as Chapter two points out, some programs have been implemented. The main points of emphasis were that more field based skill training was required and that it was continually necessary during the

initial teaching years.

Recommendations For Changes in the Workshop and Training Model

These recommendations will be made in three areas: 1) recommended changes in the workshop; 2) recommended changes in the training model; and 3) general recommendations concerning the model.

Recommended changes in the worskshop

The six changes below are suggested as a means of significantly improving future workshops:

1) Reduce the amount of paperwork in the Individualized Instruction module through consolidation of written assignments and having the final report constructed from the assignments. More sample assignments, lesson plans, and other required forms should also be made available in order to help insure that participants correctly complete written assignments on the first try. In addition, assignments should be monitored more closely to insure that workshop participants do not fall behind in assignments.
2) Review the curriculum, assignments and organization of the Visually Impaired module. This workshop should be restructured with all presentations and functional assignments clearly outlined.
3) Develop a new pre-post-test for the Individualized Instruction module. The current test for this module is a series of multiple choice and true/false questions which test knowledge about individualized instruction (see Appendix Q). Perhaps a better exam would be a series of questions which test the ability to describe how to individualize instruction. The questions could be

a series of classroom situations in which the teacher is asked what she would do next.

4) Evaluate more and at different levels (e.g. Do changes in teacher performance carry over from the workshop into the classroom?) In addition, more creative evaluation schemes are necessary since direct observation is extremely costly. For example, Orgren (1974) suggests an evaluation method where students were asked to complete an "activity checklist" regarding their preceptions of specific classroom events both before and after introducing a new program. Certainly this method of evaluation is not as reliable as direct observation; however, in combination with sample direct observations it may provide an acceptable compromise. A final workshop evaluation suggestion is that more evaluation across modules should be carried out instead of largely focusing on sample teams from one module.

5) Incorporate new and existing workshop modules and materials into the current workshop. The review of the literature suggested that several successful in-service practices and programs are beginning to emerge. In conjunction with these practices a great deal of material is becoming available, much of which was developed with government support. For example, Poliakoff (1971) presents a directory to in-service education packages developed by regional educational laboratoties and research and development centers and Stowitschek and Hofmeister (1974) present several successful minicourse packages designed to teach mathematics tutoring techniques. Previous workshop module development has

focused on a great deal of material development. Certainly the incorporation of existing materials will reduce the time to develop modules and serve as a source of new ideas.

6) Expand and formalize the process of utilizing field personnel to develop and implement new workshop modules utilizing Ohio's Special Education Regional Resource Center (SERRC) network if possible. One of the clear trends from the literature, as reported above, is the need to involve teachers in designing and implementing in-service training. The importance of the teachers' center concept has also been pointed out. Chapter III described how the current procedures for designing in-service training have already utilized field personnel in module development. These procedures could easily be modified to utilize the SERRC system and insure even more widespread support of future in-service training programs.

Recommended changes in the training model

As pointed out above, the original training model has evolved into a model very similar to other theoretical training models reported in the literature in that it consists of a basic systems model and several principles which seemed to stand above rather than being integrated within a single conceptual framework. In addition to the traditional principles embodied in most theoretical models (see trend #4 above) the original model contained two principles not common to most theoretical in-service training models: 1) that training should occur within a traditional theoretical paradigm and 2) that recognition (positive consequences) should be provided to

those involved in in-service training sessions. One other significant change in the model was also reported above; i.e. the rejection of competencies written as behavioral objectives as an instructional tool for designing workshops or as a means of providing instructional feedback to participants. With these existing changes in the original model in mind the following changes are recommended in order to achieve a more powerful in-service training model:

1) Utilize concepts rather than specific behavioral objectives as an instructional cornerstone for the development of future in-service training workshops. The term concept is used with a very limited and technical meaning as described in Engelmann (1969, p. 12) or Ferster and Perrott (1968, pp. 401-422). Engelmann (1969, pp 1-30) makes a crucial point in discussing the utilization of conceptually based instruction systems. He states that a clear distinction needs to be made between:
   a) The concept (not directly observable)
   b) The methods for teaching the concept
   c) The specific terminal behavior used to infer mastery of the concept.

Within this framework specific competency-based behavioral objectives may be helpful in terms of evaluating future workshop effectiveness.

The advantages of using a conceptually based approach with specific CBTE evaluation measures is that it may eliminate many of the problems associated with CBTE, e.g.:

a) The number of concepts for any workshops could be limited unlike CBTE.

b) The number of behavioral objectives for evaluation could be carefully selected and limited in number.

c) A clear distinction could be made between instruction and evaluation of the workshop.

d) Transfer could occur more readily if concepts were properly taught than if objectives were taught as separate items.

2) Develop a theoretical paradigm as a means of relating the disjointed in-service principles described above. In looking at the disjointed in-service training principles described above (e.g. immediate feedback, functionalism, operationalism, consequences, etc.) it apperas that there may be a relationship among them and between the basic systems model. The basic systems model appears to deal more with instructional management while the other principles appear to fit into a model dealing with the interaction process between the teacher and learner. Both models appear linked together through the concepts or skills which are taught. Certainly more theoretical work and validation of those theories seems to be warranted in the future.

3) Expand the model to encompass several types of in-service training. These types should be inter-related and viewed as

b) Appetizer Workshops. These workshops would be comprised of multi-session skill workshops with functional assignments to be conducted back in the classroom between sessions. Results would be reported in the following session. These sessions would also be designed to encourage people to enroll

in more intensive skill training workshops.

c) Summer Workshops. These workshops would be intensive skill workshops simulating actual classroom conditions. The workshops described in Chapter III represent examples. The purpose is to provide those enrolled with skills which can be directly applied to their own classroom.

d) On-the-job training utilizing a clinical professor or university field consultant. This training would be a team effort to effect building change. The team would be made up of a university field consultant and group of teachers and/or supervisors who have been through the summer workshops. The university field consultant would remain solely with that team in the building for an extended period (e.g, 1 yr.) and move on to another building. His purpose would be on-the-job training using an extension of the procedures outlined for the summer workshop.

All types of the above training have been successfully offered as separate training activities. By inter-relating them both an interest and follow-up phase can be added to the current summer workshop.

General recommendations concerning the training model

Based upon the review of the literature and the experiences in implementing the training model, two general recommendations are suggested.

1) View the model not only as an in-service training model, but as a skill dissemination model. Traditionally those in charge of research or innovative field projects are forced to attempt to disseminate instructional skills through dysfunctional means such

as written reports, training manuals, competency-based-objectives, lecture or dissemination conferences. As a result, valuble skills are often not disseminated.

Recent experiences in having out-of-state participants attend workshops, and then return to revise and implement their own workshops provide a functional dissemination model for workshop skills. This model not only provides participants with a chance to master the skills but provides for revision of the skills to meet local needs utilizing local staff. In addition, as long as skills are functional any set of skills can be disseminated using the dissemination model.

2) View the model as a means of analyzing and categorizing current practices reported concerning in-service training. While some articles reported in the literature (e.g. Stowitschek & Hofmeister, 1974; Volker & Simonson, 1974) describe their practices in terms of training principles many do not (e.g. Osburn, 1974, Orgren, 1974). The result is that many ideas with excellent potential are not transferred into new settings. It would seem that a journal or other publication which analyzed articles dealing with in-service training practices could serve as a means of obtaining this transfer. The objective would be to derive <u>new practices</u> by extending current practices through the use of in-service training principles or theory.

A Summary of Questions for Future Field Research

A number of research questions seem to have been suggested by this field study. Some of the more significant ones are:

1. Is the level of dissatisfaction with traditional university in-service training reduced through attending a summer workshop as described in Chapter II? Do attitudes toward the university in general improve as a result of attending such a workshop?
2. Is teacher behavior in the school setting changed as a result of attending the summer workshop?
3. Are children's rates of learning improved as a result of their teachers attending the workshop? Are their attitudes improved?
4. How do other in-service training workshops compare to those described in Chapter III in terms of the attitudinal and observation data reported earlier in this chapter?
5. Are written competency based behavioral objectives useful in terms of workshop evaluation? Can several sets of two observers arrive at approximately the same performance definitions using these objectives?
6. Is greater transfer of training achieved through teaching skills within a conceptual framework or is the same transfer obtained by teaching the skills independently?

APPENDIX A

EXPANDED GUIDELINES FOR CONDUCTING IN-SERVICE TRAINING

Guideline 1.0 SELECTION OF A MODEL OF INSTRUCTION

One of the most common shortcomings of traditional in-service sessions is the lack of consistency throughout a series of workshop sessions. An example of this would be two consecutive in-service sessions: At the first session, a psychoanalytically oriented person tells a group of teachers that if a child kicks and screams, we should talk to him to find out why he is doing it, thus giving him a chance to work out his emotional tension; at the second session, a behaviorally oriented person cautions a group of teachers against talking to a child who kicks and screams since this may reinforce the behavior. Of course, it is not the intent of either person to confuse the teachers. They are merely describing a solution to the problem of kicking and screaming within a certain frame of reference or paradigm.[1]

It is imperative to provide a consistent in-service program if we desire to increase the probability that a teacher will acquire new teaching skills. To do this it is up to the people who plan the in-service training sessions to select a model of instruction and to derive the desired teaching skills (operational definitions) from this model of instruction. This is not to say that a state, region, or university would have to function under the same model. Indeed, it would seem that different areas, school districts, or departments in universities might desire to function and evaluate student performance under different paradigms.

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[1]A discussion of this topic is beyond the scope of this description. For a general discussion of the topic see: Hayakawa, 1964, pp. 171-229; Szasz, 1961, pp. 37-51; Szasz, 1965, pp. 249-263. For a more limited discussion of instructional paradigms see: Engelmann, 1967; Haring and Phillips, 1962, pp. 1-65; Hewett, 1969, pp. 1-59.

Guideline 2.0 DETERMINE SKILLS TO BE MASTERED

Since the early 1960's, educators have realized the need for specific instructional (behavioral) objectives for use with public school students. Even though some of those concerned with teacher training (Ferster & Parrott, 1968; Malott, 1971; Becker, Engelmann and Thomas, 1971) have specified their teacher objectives, most have not. This is especially true for those in charge of providing in-service training.

Most agencies which supply funds for in-service training require the objectives for the training session be specified as a requirement for funding. However, most accept objectives which, in addition to being general, relate to what the person providing the workshop will do. For example, the following are two actual objectives for two separate workshops which were approved for funding by a local Instructional Resource Center:

1. "To bring the EMR teachers together and acquaint them with new and exciting ways of teaching science."
2. "To bring together all teachers and administrators who work with exceptional children throughout _____ County and challenge them to take a critical look at the present educational programs for students and future goals."

Even though the intent of people planning these workshops was undoubtedly good, their objectives contain two weaknesses. First, the objectives are not specific. How could a person providing the in-service program determine whether or not workshop participants had mastered new skills when using the above objectives? Second, the main

thrust of both objectives is on what the person providing the in-service will do rather than what the workshop participant will do. For example: "To bring together all teachers . . .," or "To acquaint them (teachers) with new and exciting ways . . .," or "To challenge them (teachers) to take a critical look at . . ."

Educators have progressed since the late 50's and early 60's in terms of writing specific instructional objectives for students; but generally they have not used this technology to help design the most efficacious in-service sessions for teachers or other groups of adults. The result of not specifying teacher objectives is that time (teachers' and others') and money may be spent with no appreciable change in teacher performance.

Therefore, in focusing on teacher training, the first step is to specify the skills[2] which are necessary on the part of the teachers for maximum classroom effectiveness. These skills should be specific with regard to what the teacher should do, under which conditions, and how well in order to have mastered the skills. Godd references for writing specific (behavioral) instructional objectives have been pre pared by Mager (1962) and Wheeler and Fox (1972).

It should be noted that these objectives relate to what you desire the teachers to do (e.g., role play a parent conference) during or after the session rather than what the people providing the

[2]The teacher skills which would be selected would be a function of the instructional model as described above in section 1.0.

workshop will do during or after the session (e.g., bring teachers together and excite them about parent conferences).

Guideline 3.0 DELINEATION OF DIFFERENT SKILL LEVELS

Educators have long realized the need to differentiate "skill levels" in working with children. Initially, these "skill levels" took the form of grade levels and later progressed to skill groups under non-graded and individualized programs. Conversely, in training teachers, we seem to feel that everyone is on the same level. For example, usually all teachers are encouraged, or required, to attend all workshop sessions in a district even though thay may have mastered the skills involved. The result, of course, is that teachers who have mastered skills are repeatedly exposed to them for the benefit of those who have not mastered the skills.

In order to avoid repeatedly exposing teachers to the same skills, it is necessary to differentiate teacher skills, both in terms of difficulty and importance. This difference could be accomplishe by assigning skills to different "levels." One arbitrary method of dividing skills is to divide skills into three levels.

Level 1. Basic Instructional Skills

These are the skills which are necessary to function effectively at the classroom level. Examples of areas from which level 1 skills could be derived are (1) Individualizing instruction, (2) Using reinforcement, (3) Conducting parent conferences, (4) Using precision therapy techniques to remediate articulation problems.

Level 2. Advanced Educational and Instructional Skills

These are the instructional or administrative skills which allow for the most effective instructional program. Examples of areas from which these skills could be derived are: (1) Delineating and analyzing reading and arithmetic skills, (2) Writing speech programs for articulation disorders, (3) Using effective language therapy techniques, (4) Conducting parent training programs, (5) Using network analysis to plan complex administrative jobs, (6) Providing positive functional supervision.

Level 3. Leadership Development Skills

There are the instructional or administrative skills which are the result of translating theory into practice. Since these skills cannot be specified in advance the following format is suggested: (The Level 3 workshop should serve four to eight people and take place over a two-year period).

Year 1.

1. Attend and participate in a leadership seminar which deals with innovations and new trends in special education. If feasible, university and State Department of Education personnel should be involved either as participants or consultants.
2. Participants should select one topic which they feel will have a desirable or undesirable future impact upon the public schools. Examples of topics which might be selected are:

a. Labeling and Special Education.

b. Alternative treatment models for special education.

c. Curriculum development in the area of social behavior.

d. The applications of systems technology to educational and instructional settings.

e. Computer applications in the schools.

f. Applications of linear programming for school administration.

g. Uses of volunteers in education.

3. Following a period of time for study, participants should begin to submit short reports (i.e., outline from 5 to 10 pages) to other team members. The report should include the following:

a. A summary of current information on the topic and a bibliography.

b. How will this trend effect special education over the next five years (a participant may determine it will have none).

c. What are some specific and practical things which may be done now to help implement or forestall this innovation or trend? The reports should be discussed at length during seminar meetings throughout the year.

4. At the end of the first year each participant should select one of these areas (his own or some other) and plan to implement or forestall the innovation or trend in the public schools.[3] The plan should be specific and should contain a time table for implementation.

---

[3]This could be supported, when possible, through State and Federal experimental funding or through funding through a Special Education Resource Center.

Year 2.

1. Implement the plan in the public schools.
2. Seminar meetings should continue during the second year so as to provide feedback to all participants concerning the problems and progress in implementing the idea.

By dividing the skills into levels, different levels of in-service training may be provided for teachers who have different levels of training. This also provides a means of teacher evaluation.

Guideline 4.0 USE OF A SYSTEMATIC AND FUNCTIONAL TRAINING MODEL

The applications of systems technology is becoming apparent in special education in the form of several seccessful individualized instructional models (Stephens, 1970; Engelmann, 1969; Deno, 1970; Kunzelmann, 1970). Even though all models are described by their authors in somewhat different terminology, they all have the same basic "systems" components. Figure A.1 is a representation of this instructional model. As can be seen, there are four basic components which are necessary for an effective individualized instructional program.

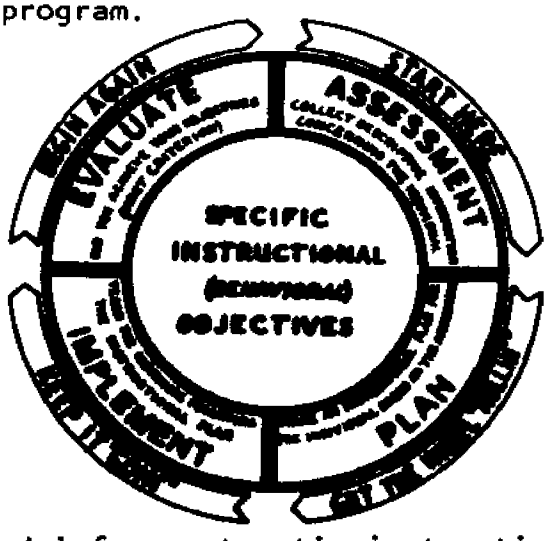


Figure A.1 A model for systematic instruction.

It is central to this model that the same systematic paradigm of instruction should be used in providing in-service training with teachers. The first step would be to assess teacher skills in terms of the skills developed in sections 2.0 and 3.0 above. The assessment could be done, with the teacher's permission, through observation by supervisors, psychologists, principals, self-observation on video tape, or university consultants who are familiar with the skills to be assessed.

Next the information from several assessments could be combined and used by a school district or regional instructional resource center as a means of planning upcoming in-service sessions. The assessed skill requirements (needs of the teachers) would determine what materials and which personnel are necessary, since materials and consultants would be selected based upon their ability to help teachers master skills rather than on the more typical criteria used. These workshops usually should be planned in a series to meet a specific objective. For example, a series of eight half-day workshops may be necessary in training teachers to conduct effective parent conferences.

Once the workshop planning is accomplished an individualized instructional plan for each teacher could be composed as a cooperative effort between the teacher, supervisor, principal, a psychologist, or university consultants. The plan could consist of a selected sample of in-service sessions designed to help the teacher master specific teaching skills. This sample of workshops

may be selected from a larger number provided by the school district or a regional instructional resource center. By selecting a desired sample of in-service training sessions, teachers would not be forced to sit through workshops in which they had mastered the skills, or to sit in workshops in which they did not possess the pre-requisite skills.

Once the workshop has been planned, a "functional model" should be used to provide the in-service training. A functional model has two very improtant requirements:

1. It must provide for active participation by teachers in a way which approximates, as closely as possible, the "real life" skill requirements. For example, if the objective is for teachers to learn to assess the skill level of the children in their classroom, they should have workshop experience in practicing assessing skill levels of children of the same age. If the objective is to teach teachers to write linear instructional programs the in-service training should involve writing linear instructional programs. In both cases, corrective or corroborative feedback must be provided as frequently as possible.
2. A functional model must provide specific follow-up assignments for teachers to perform with their students.

These follow-up assignments should be directly related to the skills developed in the workshop and should be specifically developed with each person before they leave the workshop. For example, if the workshop session dealt with role playing parent conferences, the teachers should be assigned to conduct a parent conference with one of their child's parents. The format and specific requirements for the parent conference should be developed with the teacher before they leave the workshop session. In addition, some form of corrective or corroborative feedback must be provided. In the above example, corrective feedback may be provided by a supervisor who observes the conference or if this is not possible, the results should be incorporated into the next workshop in the series.

Guideline 5.0 PROVIDE RECOGNITION TO THOSE TRAINED

Generally school districts have two effective options for encouraging teachers to develop and maintain teaching skills:

a. punitive measures such as harrassment, transfer and dismissal or

b. incentive measures such as salary addendum increased for university credit and merit salary.

Most would agree that positive methods were the better of the two; however, certain problems arise when addendum increases or merit salary are based on "input evaluation" such as university hours or

the number of meetings which teachers attend. Even though these factors may be good indicators they are not direct measures of performance. The best evaluation is in the skills which the teacher has and uses. Delineating specific teaching skills and helping teachers learn to use them would provide an excellent method for determining those who deserve addendum and merit kincreases and would eliminate many of the problems associated with "input evaluation." This system would also provide incentives for teachers who have developed teaching competencies.

1. These teachers would not have to attend as many training sessions as new or less skilled teachers.
2. These people could be recognized and serve as resource people for those who are just learning lower level skills.
3. Administrators would have a better basis to provide these teachers with positions of more responsibility within a system of differentiated staffing.

In addition, school districts or instructional material centers could issue "proficiency awards" to those who master each skill level. These awards could contain a list of the skills which are mastered and a copy could be placed in teachers' personnel file as a permanent record of their accomplishment.

APPENDIX B

SAMPLE FINAL REPORT--FIRST PROJECT BREAKTHROUGH

Summer 1970

Academic Assessment

I tested his academic abilities with the Dolch List of basic sight vocabulary, Dr. Thomas Stephens' Silent Reading Comprehension Survey, a checklist of phonics techniques, and an arithmetic assessment sheet. I also devised some "tests" of visual and auditory discrimination and of visual recall. And, I observed his class work while he was doing it, noted the kinds of errors he made when I graded his papers, and kept a record of his progress on various practice papers in each skill.

Reading

He recognized 89 of the 200 Dolch List words. He mistook THINK for THANK and vice versa, HER for SHE, and THERE for THEM. He recognized words in such categories as color and number names; pronouns, short, common verbs like SAID, RUN, COME, DID, PLAY, LOOK, JUMP, HELP, and RIDE: and structure words such as prepositions, articles, and conjunctions that are common in first readers. He recognized very few adjectives and adverbs.

In phonics he was able to name all the consonants except lower case b, which he called d. He was unable to make any of the consonant sounds isolated but volunteered several words containing each sound and was able to pick out the letter when I made the isolated sound. When I tested him, the class had just begun consonant digraphs--we had only worked on ch and wh at that point--and had not started consonant blends. He was unable to make any of the blend or digraph sounds and volunteered no words containing

the sounds. He was unable to pronounce the nonsense words with long and short vowels or with blends and digraphs. From what I know of his abilities and personality, I would guess that it was both an unfamiliarity with phonics rules and an inability to accept the nonsense letter combinations as words to be pronounced that caused the failure here.

We went through the 1.5, 2.5, and 3.5 grade level stories on the Silent Reading Comprehension Survey. He vocalized on each of the first two until he was reminded to read it to himself silently; then he subvocalized. He read the third story out loud completely, probably because he found it the most efficient way to get the help he had been assured of on vocabulary. There was no apparent tension during any of the stories: his behavior and comments indicated that he was enjoying himself thoroughly. He missed only two words on the 1.5 level story, neither of which he asked for, but I heard him whisper them to himself wrong. He missed nine words, seven of which he asked for, on the 2.5 level story. He missed twenty-one words in the 3.5 level story, twenty of which he asked to have pronounced for him. He repeatedly said SHE for HER, an error he also made in the Dolch List. He scored 50 percent on the content questions after the 1.5 and 2.5 level stories and 33 percent after the 3.5 level story.

Later checks on blend and digraph mastery gave inconsistent results. As the class learned each new sound and letter combination, I assigned practice worksheets daily. His achievement on

these worksheets ranged from not even doing them despite as many reminders, encouraging words, and offers to help as I could fit in to doing a whole paper independently but missing every item to completing a paper independently and missing only one item.

Arithmetic

In arithmetic he showed that he is able to count the numbers of a set and write them; he can match sets with the number that describes them; and he can read the word names for the numbers 1 to 9 correctly. He missed only three of eighteen addition problems of two single digit numbers. The three he missed all involved adding with zero. We had not yet worked in class on addition with numbers of more than one digit, but he was perfectly willing to answer those problems too by counting--evidence that he understands what the addition operation does with numbers. He missed four of fifteen subtraction problems involving single digit numbers, and three of those had zero in the problem or answer. He was again willing to attempt the two digit problems, but I could not tell how he was arriving at his answers. He assured me that his big brother had taught him how to multiply (he recognized the x sign as "times tables") and he attempted twelve of the multiplication problems, but answered none correctly. He showed a willingness to try anything in the arithmetic "test," a complete reversal from him usual attitude toward any written classwork.

Conclusions

I would conclude from his performance and attitude throughout the arithmetic and reading diagnostic tests that he has the mental potential to do second grade work but lacks the motivation to do it independently. He needs to be shown that he can get the attention and praise he devours when I work with him on a one-to-one basis by doing his independent seat work, handing it in for me to see, and waiting a few minutes of a day for his attention and praise.

Assessment of Modalities

Visual

I checked his visual discrimination on letters, words, and shapes. I showed him letters that look alike, for instance, b and d, n and h, and asked him to name them, then to find each one I named. At first, he confused b and d as he had in the phonics test, but he made no other errors. Then I had him read words that look alike and later find the word I pronounced. I used ON and ONE, THREE and THERE, OF and OFF, OUT and PUT, and nine other pairs. I presented each separately, not in pairs, for him to pronounce, but I laid them out in pairs for him to find a word I described and he said THEM for THEN, WAS for SAW, WHERE for THERE, and IF for OF. He had trouble distinguishing between WERE and WHERE, OUR and OUT, IN and IS, THEN and THAN, IF and OF, and SAW and SAY when I pronounced words for him to find.

I used the same two procedures for shapes in trying to assess his visual discrimination without requiring him to know words. He

could name the rectangle, square, circle, oval, and triangle, but not the diamond. He was able to differentiate among them all.

To check his visual recall, I used a technique similar to one of the subtests in the Illinois Test of Psycholinguistic Abilities. I produced patterns of X's or O's or simple pictures (like star, flag, heart), showed them to him for a few seconds, and then asked him to reproduce them. He could do a three item pattern and some four item patterns, but none longer.

Auditory

To check his auditory discrimination, I pronounced words that sound alike, such as THEN and THAN, WELL and WILL, and had him pronounce them after me. He could hear the slight difference in vowel sounds and reproduce them. However, he pronounced the d as t in SECOND and GOOD and the e in GET as a short i. I believe that these changes in pronunciation were due to his hearing such pronunciations at home, though; that is, he was discriminating among sounds and reproducing them the way he heard them most often.

His auditory recall was good for a short time. He was able to answer correctly all three of the questions I asked after reading him a very short story. I was unable to check again for delayed recall but he has shown in class at times that he remembers things he is interested in for quite a while.

Haptic

I did not check his haptic learning specifically for the purpose of diagnosis when I checked his auditory and visual, but I

do know that his achievement and interest in math have both dropped since we have been working on topics for which we use fewer concrete objects for the children to handle. In the beginning of the year when we studied sets, elements, and union by having children stand in yarn enclosures on the floor and then by having them operate on their own sets with colored blocks or colorful felt squares on the flannel board, he was very enthusiastic and apparently remembered most of what I taught. Now that we are working on addition and subtraction with two and three digit numbers, so that we do little more than write, he is totally uninterested and rarely completes a math assignment.

Assessment of Behavior

After observing his behavior for six different five minute intervals during a period of eleven days, I discovered that, although it seemed that he was constantly out of his seat, actually he was only out of his seat five minutes of that thirty, but he was talking twenty-two of those minutes. The only two five minute periods of observation when he never left his seat were when he was busy eating at the Valentine's Day party and when he was working in a small group with the aide. Because it was recommended that only one behavior be recorded for each minute, I did not record time off an assigned task, so I can only estimate, but I know that when he is away from his desk, engaged in conversation with a neighbor, or just speaking out in the room, he is not working on the task.

When I work with him on a one-to-one basis, either for the diagnosis or during seat work time when I give individual help between reading groups, he is pleasant, willing, and industrious. He wants me to go through the mental process step by step for him, but when I assure him he can do it, he does, as long as I stay to watch. In the beginning of the year he seldom even started any seat work. Since I have been making a point of helping and praising him, though, he now begins--after a few minutes of talk--and declares proudly that he is going to do all his work, but unfortunately his enthusiasm and efforts wane as soon as I get involved in a reading group.

His reactions to instructions and to his classmates are as inconsistent as his reactions to assignments. I observed him during an indoor recess one noon specifically to watch his reactions to others. Part of the time he played quite happily and quietly by himself. At the other extreme, he once tried to cut two boys' hair during that recess, and he was a verbal and physical disruption during his attempts at barbering.

During a period of time when I am giving the whole class instructions--either teaching a new skill or concept, or giving directions for practice work--he switches back and forth from ignoring me and bothering his neighbors to sitting with his hands folded, following my instructions, and even asking pertinent questions.

Assessment of Reinforcement System

He craves attention and will get it one way or another. Since he is used to getting it by inappropriate behavior both at home and school, he usually resorts to inappropriate behavior in class to get my attention or the attention of his classmates. This is both a disadvantage and an advantage to any efforts to modify his behavior. It is a disadvantage because adults working with him not only have to reorient their thinking to "accentuating the positive to eliminate the negative" but he himself will have to reorient his thinking. He will have to be taught that appropriate behavior not only gets attention but that it gets more frequent and pleasant attention than inappropriate behavior. It is an advantage, though, that he craves attention so because he will respond to almost any sort of positive reinforcement. His face lights up with just a wink, a smile, a nod, or a pat on the shoulder from me. He also likes to be rewarded by getting to work one to one with an adult or by being given special responsibilities like straightening up the games or books or picking up the wastepaper from the floor.

Parent Conference

The monther did not return my written request for a home visit last fall, but I did have occasion to meet her in her home once when I felt it necessary to take her sone home and speak to her about his behavior that day. He had been particularly disruptive and had done no work and his attitude seemed to me to be such that

perhaps an immediate talk with his mother would help. She did not turn off the stereo when I came, or even reduce the volume, so I had to compete with it to explain why I had come. When she had "heard" my explanation, she turned to her sone and made some treats of physical punishment and reminded him that she had told him at the beginning of the year that he had "better be good." Then she thanked me for coming and that was the extent of our conference.

Because she resorts to physical punishment and I am trying a more positive approach with valued rewards, because he rarely mentions his mother though he talks about his brothers, and because she is so often late in returning things to school or providing supplies, I have since decided to try tactfully to circumvent her and work with her son in my own way, not counting on her help.

Evaluation

He has adequate (I avoid the term average because in an area like his, who is to say what is average or normal) ability for second grade work, but he lacks the motivation to complete any academic tasks. He works best under two conditions: when the ratio of students to adults is as close to one to one as possible and when he can manipulate materials to work through an explanation of or practice on a skill while he hears and sees the teacher explain it. He needs to be given as much individual help and encouragement as possible and to have skills and concepts presented as concretely as possible. He also needs to be moved toward main-

taining a satisfactory achievement level with gradually decreasing amounts of individual attention, and he needs to be helped a little at a time to work with more abstract lesson presentations.

Recommendations

1. Notice and praise him for every appropriate behavior, no matter how small.
2. Allow him to manipulate concrete materials whenever possible.
3. Try "making a deal" with him to do X number of items on a practice paper, then increase the number to one complete assignment and on up until he is completing his work. Be careful not to increase the expected performance level until he has mastered the present level and been rewarded for it.
4. Explain in no uncertain terms that he can have all the special responsibilities he wants provided he makes the time for them by first completing his assigned academic tasks.

APPENDIX C

BREAKTHROUGH TRAINING GUIDE--SECOND FOLLOW-UP PHASE

1971-72 School Year

PROCEDURES FOR DESIGNING TRAINING PROGRAMS FOR DIRECTIVE TEACHING

by

Stephens T. M. and Cooper, J. O.

These procedures are designed to be used by school practitioners who have successfully completed a minimum of 100 clock hours of instruction and practicum experience in Directive Teaching (D-T). They are to be used for designing a program of instruction within the D-T System for:

1. Teaching Personnel
2. Parents
3. Children

A separate program should be completed for each group that you intend to instruct.

Reference is made to sources for the reader to review of use. Each reference is coded and can be found under the section entitled "sources."

To be completed by the participant:

Your name_____

Your position_____

Address_____

Phone_____

This program is designed for (circle one):

1. Training teachers
2. Training parents
3. Training children

Date Program was Prepared_____

Checked and approved (do not complete)

By_____

Date_____

A. Initial Specifications

Step 1: Name the behavior or behaviors you want to increase or decrease.

_____

Step 2: Give your definition of the behavior. Include only definitions that generate independent observer agreements of 80% or higher.

_____

_____

Step 3: Describe the characteristics of the population to be served; e.g., sex, age, grade, education, school success, employment, etc.

_____

_____

Step 4: Indicate how the population will be selected; e.g., random selection, assigned by teacher, selected through assessments or criteria levels, volunteers, etc.

_____

Step 5: How many students (parents, teachers) will be selected? _____

B. Measurable Objectives

Step 1: Specify Objectives

These objectives must be:

a) Specific

b) Measurable

c) Functional (useful to those you are treating or teaching)

Write your objectives below: (Sources: 1.3)

1. _____

2. _____

3. _____

4. _____

5. _____

Step 2: Indicate terminal behavior

a) Describe the conditions under which the learned responses will occur.

b) Indicate exactly what the learners will be doing so as to demonstrate their newly acquired behavior.

c) Describe how <u>well</u> the learner must perform the task; i.e., specify terminal behavior.

d) Be specific.

e) Relate the terminal behavior to each objective.

Write your terminal behavior below. Follow the same sequence as in Step 1. (Sources:1.3)

1. _____

2. _____

3. _____

4. _____

5. _____

C. Baseline Data Collection (Sources: 1.7, Part 1)

Step 1: Describe measurement technique. These descriptions should be described in enough detail so that another person could replicate your measurement tactics after reading your descriptions. You may choose to employ more than one measurement technique for your study. Choose the techniques you used from the list below and elaborate.

a) Direct measurement of permanent products (e.g., written responses)

_____

_____

b) Observational recording

Event recording (e.g., frequency of occurrence, tally, etc.)

_____

_____

Duration recording (e.g., amount of time engaged in a behavior)

_____

_____

Interval recording (e.g., the occurrence or non-occurrence of a behavior within a specified interval of time) _____

_____

_____

Time sample (e.g., the occurrence or non-occurrence of a behavior immediately following a specified interval of time) _____

_____

_____

Step 2: Describe materials used in data collection; e.g., stopwatch, worksheets, etc. If you use a checklist or special forms, attach them to this form.

_____

_____

Step 3: Describe reliability measures (interobserver agreement). Attach instructions that are given to the independent observers.

_____

_____

Step 4: Will you group your data (mean, mode, median) or make entirely separate graphs for each student (parent, teacher)? _____

_____

_____

Step 5: Graph your data on the attached forms.

D. Procedures

Step 1: Indicate the procedures you will use to achieve the objectives state under B.

a) What independent variable (treatment) will be used to produce behavior change; e.g., reinforcement, curriculum material changes, social models and imitation, etc.? _____

_____

_____

b) What are the contingency criteria for delivery of treatment; e.g., continuous, fixed time intervals, variable time intervals, fixed number (ratio) of responses, variable number (ratio) of responses._____

_____

_____

c) If you are using reinforcers or other consequences that must follow the behavior but which cannot be delivered immediately, how will you bridge this time delay? _____

d) If others are delivering treatment (e.g., parents or teachers) how will you know that it has been delivered? _____

_____

_____

Describe the procedures you will follow: (Sources: 1.1, 1.2, 1.4, 1.6, 1.7, Parts II, III)

1. _____

_____

2. _____

_____

3. _____

_____

4. _____

_____

5. _____

_____

6. _____

_____

7. _____

_____

8. _____

_____

9. _____

_____

10. _____

_____

E. Applied Behavior Analysis (Sources: 1.7, Part I)

The Reversal Design

1. Baseline-Record of ongoing behavior prior to intervention

2. Intervention procedure - Introduction of Step 4.

3. Baseline$_2$ - Withdraw intervention procedures and return to Baseline$_1$ Conditions.

4. Intervention Procedure$_2$- Reinstate the Intervention Procedures (same as Intervention Procedure$_1$)

5. Post checks.

The Multiple Baseline Design

A multiple baseline analysis can be used when two or more similar behaviors are emitted by the same subject, when the same behavior occurs in different stimulus conditions, or when the same behavior occurs in among more than one subject. When these conditions exist, contingencies may be applied to one behavior then the other, in one stimulus condition then the next, or with one subject then sequentially with other subjects. Functional relationships are established if changes in each behavior correspond to experimental manipulations.

a) Select the design you will follow in order to evaluate the effects of your instruction. Indicate the design you have chosen below:

_____

b) Define the criteria used for changing conditions (e.g., fixed time for each, criterion levels, "stability", etc.)

_____

_____

_____

c) Label and define, on the graph, each condition you implement. These labels and definitions should be concise, but complete enough that others would know your tactics without making reference to your text.

F. Abstract

Population and Setting:

Target Behavior and Interobserver Agreement:

Treatment and Result:

Summary Statement:

SOURCES

Books

1.1 Stephens, Thomas M., Directive Teaching of Children With Learning and Behavioral Handicaps. Columbus, Ohio: Charles E. Merrill Publishing Co., 1970.

1.2 Homme, Lloyd and others, How to Use Contingency Contracting In the Classroom. Champaign, Illinois: Research Press, 1969.

1.3 Mager, Robert F., Preparing Instructional Objectives. Palo Alto, California: Fearon Publishers, 1962.

1.4 Mager, Robert F. and Kenneth M. Beach, Jr., Developing Vocational Instruction. Palo Alto, California: Fearon Publishers, 1967.

1.5 Mager, Robert F., Developing Attitude Toward Learning. Palo Alto, California: Fearon Publishers, 1968.

1.6 Becker, Wesley C., Parents are Teachers. Champaign, Illinois: Research Press, 1971.

1.7 Hall, R. Vance, Managing Behavior, Parts I, II, III. H & H Enterprises, Inc., 9001 West 65th Drive, Merriam, Kansas 66202, 1970.

APPENDIX D

FUNCTIONAL ASSIGNEMENT #1--ESTABLISHING RAPPORT

SUMMER, 1972

OBSERVATION FORM - FIRST SESSION

Student _____ Date August 3, 1972

Observer _____ Session First

Time from 9:00 to 10:30

Information Regarding Student

Date of Birth May 22, 1963 School _____

Age 9 School Placement Fourth Grade

Observations In One to One Setting

(please use descriptive terms)

Atention to Details: Very observant of details, e. g. In describing her home she talked about some of the specific furniture and ways it was arranged - also in describing how she came to school she described several buildings and other landmarks.

Attending Skills: Has trouble following complex oral directions and seems to not attend while people are speaking to her e.g. when asked to walk to the door, open it, and run back to the tutor she ran to the door, opened it, closed it, and ran back to the tutor. She also does not look at people when speaking to them and interrupts them.

Motor Skills: Gross and fine motor co-ordination appears normal e.g. runs, throws, and walks as other children her age; also right handed, writes well, and likes to use a fine lead mechanical pencil.

Language: Very verbal, e.g. speaks in complete sentences, and speech contains the extensive use of adverbs, adjectives, and prepositional phrases.

Planning and Working Skills: Seemed eager to attend e.g. brought pencil and tablet.

Preferences: Drawing with felt markers, ball point pens, mechanical pencils, felt markers, working for the tutor, buying balloons for her younger brother, playing with the paddle ball, watching film loops.

Response to Observer: Liked to be with the tutor e.g. chose to stay with the tutor during the activity time and made comments such as "There sure are nice teachers here."

Other Comments: She appears to have a much stronger auditory channel than a visual channel - I plan to pay careful attention to this during the assessment.

APPENDIX E

SAMPLE READING AND ARITHMETIC ASSESSMENT MATERIALS

SUMMER, 1972

The first sample, from the CARE packet[1] was used to assess reading decoding skills. A demonstration of how to use the CARE packet was given as part of the workshop. A team leader or consultant assessed a child and showed participants how to derive teaching objectives from the assessment.

[1]This material was taken from the complete CARE packet which included everything necessary for assessment including worksheets and flashcards. It took approximately 20 minutes for an experienced person to give a complete CARE assessment to an individual child. This material was developed by Joyce Levin, Virginia Lucas, and Norma Zappin as one of the activities of the Miami Valley Instructional Resource Center (ESEA Project. No. 442A-A0-70).

Characteristics and Subsequent Tasks of Children with Learning Disabilities

1. Visual discrimination difficulties - confuse letters or words which appear similar, i.e. -- beg, bog
   ship, snip

2. Rate of perception slow.

3. Reversal tendencies both in reading, writing, i.e. -- dig for big

4. Inversion tendencies, i.e. -- u for n, m for w.

5. Difficulty following and retaining visual sequences. Cannot duplicate a pattern of block letters to arrange in order -- if given word man and letters to arrange in same way, will distort order and spell nam, amn.

6. Some can follow model when present but cannot revisualize sequence from memory.

7. Problems with visual analysis and synthesis. Difficulty doing puzzles indicating trouble in relating parts to the whole.

8. They prefer auditory activities.

Educational Tasks

The purpose of instruction is to give these children a systematic means of attaching words, but also to assist him in learning a sight vocabulary. The objective of all reading instruction is to give the child a means to identify words he sees. The following approach to remediation (alphabetic or phonovisual) has been most successful.

1. Teach letter sounds
   a. select 2 or 3 consonants different in appearance. (m,p,t)
   b. hold flash cards - teacher says sound, child repeats sound. caution -- do not say consonants followed by a vowel sound.

2. Teach words that begin with each sound.

3. Teach identification of letter to its sound.
   a. Teacher gives sound, child selects letter to go with sound. (Building a strong association between visual and auditory symbols.)

4. Word-sound associations - rarely taught - confusing to children with learning disabilities.

5. Blend sounds into meaningful words using following sequence of letters: m,p,t,h,g,a,i,n,j,k,b,o,g,l,r,s,ch,u,sh,e,th,d,qu,z,x,y,c,v,w.

Immediately after sounds have been blended into a word ask child to tell what it means and to use it in a sentence. Visual dyslexics have no difficulty comprehending - problem is to reach meaning.

6. Present word families - changing initial consonants to form other words man, pan, ran, fan,

7. Intorduce two letter teams -- pl, st, gr, st, either in final or initial positions. (plan, stand, grab, step, rust, best.)

8. Introduce long vowel combinations and consonant groupings that are represented by a single sound. (ay, ee, oa, th, ch, wh, sh)

9. Simple sentences, paragraphs, and stories.

CHECKLIST OF PHONICS TECHNIQUES

CONVERSION TABLE

Test Area	Grade	Placement	Conversion
	2.0	3.0	4.0
1. Letter Names	All known for beginning second		
2. A. Letter Sounds	12-15	16-18	19-26
B. Auditory	12-25	16-18	19-26
3. Letter Teams	3-5	9-11	14-15
4. Short Vowels	2-3	5-6	8-10
Long Vowels			
5. Blending	2-3	4-5	6-8
6. Syllables	8-10	18-22	30-32

1. To find instructional level - average children - drop back 6 months; handicapped children, drop back one year.
2. Average children learns one word after 70 exposures; handicapped children need 170 exposures.
3. Four exposures during one-half period.

Checklist of Phonics Techniques

Student_____

Date_____

1. What are the letter names?

1. m	4. h	7. f	10. j	13. o	16. r	19. e	22. x	25. v		
2. p	5. g	8. l	11. k	14. qu	17. s	20. d	23. y	26. w		
3. t	6. a	9. n	12. b	15. b	18. u	21. z	24. c			

(Use with green flash cards)

2. How do these letters sound?

   A. Letter names

1. m	4. h	7. f	10. j	13. o	16. r	19. e	22. x	25. v
2. p	5. g	8. l	11. k	14. q	17. s	20. d	23. y	26. w
3. t	6. a	9. n	12. b	15. l	18. u	21. z	24. c	

(Use with green flash cards)

   B. Auditory - I'll say sound, you give letter, (Instructor gives short sound of vowels.)

3. I'll say the letter name. You write it.

1. m	4. h	7. f	10. j	13. o	16. r	19. 3	22. x	25. v
2. p	5. g	8. l	11. k	14. qu	17. s	20. d	23. y	26. w
3. t	6. a	9. l	12. b	15. l	18. u	21. z	24. c	

(Use with green flash cards)

4. How do these sound?

1. fl	4. pr	7. th	10. tr	13. st
2. dr	5. sh	8. cl	11. br	14. pl
3. wh	6. sp	9. ch	12. gr	15. ck

(Use with blue flash cards)

5. These are nonsense words. Can you tell which letters are called vowels? Can you tell something about long and short vowel sounds? Read each word with the short vowel sound?

1. pid	pid (i as in bid)	
2. rep	rep (e as in bed)	
3. fap	fap (a as in cap)	(Use with cafe flash cards)
4. mot	mot (o as in hot)	
5. sut	sut (u as in but)	

Now read the words with the long vowel sound.

1. pld — pld (I as in mice)
2. rep — rep (e as in read)
3. fap — fap (a as in cape) (Use with cafe flash cards)
4. mot — mot (o as in hoe)
5. sut — sut (u as in cute)

6. These are nonsense words. Blend the first two letters together and put them with the rest of the letters.

1. br-uck
2. cl-ode
3. st-ap
4. sh-im
5. gr-em
6. sp-ate
7. tr-up (Use with white flash cards)
8. ch-on

7. Read these. (Use with yellow flash cards)

1. ick — as in sick
2. ide — as in ride
3. ight — as in light
4. ile — as in file
5. and — as in sand
6. ing — as in sing
7. it — as in fit
8. ite — as in mite
9. er — as in teacher
10. est — as in biggest
11. ow — as in lo-cow
12. se — as in set-seed
13. ter — as in winter
14. tion — as in condition
15. op — as in hop
16. all — as in mall
17. ell — as in sell
18. eep — as in jeep
19. en — as in entrance
20. all — as in fall
21. in — as in sin
22. ate — as in mate
23. ay — as in say
24. con — as in condition
25. ain — as in pain
26. ed — as in bed
27. ill — as in sill
28. ent — as in lent
29. ock — as in crock
30. on — as in pond

This sample of assessment materials represent part of a criterion referenced curriculum of arithmetic skills which was developed by Cooper, Groves, and Lambour (1972). This assessment can be easily used with small groups or individuals. In order to initially assess the child(ren) the teacher gives an Entry Level Assessment. Rather than obtaining a score the teacher performs a simple item analysis using the following rule of thumb:

	3 correct	=	Mastery Level
1 or	2 correct	=	Instructional Level
	0 correct	=	Frustration Level

The mastery items for each child are then recorded on an Individual Skills Record for each child which is keyed to the Entry Level Assessment. Following instruction children are assessed on a 20 item final criterion test to check for mastery of any individual skill. These criterion tests are keyed to the sample items in the Entry Level Assessment.

The Grade 2 Entry Level Assessment is shown on the next four pages and is followed by the samples of final criterion tests.

Skills for Arithmetic

ENTRY LEVEL ASSESSMENT

Grade 2

Name _____ Date _____

Page	TASK
17	Write the numeral which comes before, between, or after the following numbers. 129 _____ 131 149 _____ 109 _____
21	How much greater is one number than the other in each of the following pairs of numbers? 10, 6 _____ 7, 3 _____ 6, 1 _____
22	How much less is one number than the other in each of the following pairs of numbers? 7, 2 _____ 9, 7 _____ 7, 0 _____
23	Circle the number which is greater. 255, 525 899, 988 408, 804
24	Circle the number which is less. 998, 989 548, 458 493, 439
33	Write the number after each number word. Seventy-five _____ Twenty-eight _____ Eighty-two _____
36	Write the number of 100's, 10's, and 1's in each number under the proper column.

	Hundreds	Tens	Ones
998	_____	____	____
748	_____	____	____
475	_____	____	____

Page	TASK

38 Write the odd numbers in the odd column, the even numbers in the even column.

	Odd	Even
8		
3		
5		

39 Write the odd numbers in the odd column, the even numbers in the even column.

	Odd	Even
91		
65		
36		

47 Write in the missing numeral to make the number sentence true.

7 + ___ = 9 8 + 5 = _____ ____ + 5 = 10

48. Write the answers to the following problems.

36	48	65
+91	+21	+62

49 Place the following numbers in the correct form for addition. You do not have to work the problems.

874 + 24 = 203 + 104 = 981 + 7 =

50 Write the correct answers to the following problems.

823	536	624
+321	+722	+935

53 Write the answers to the problems below.

4	9	9
6	9	8
+5	+9	+9

55 Check the following subtraction problems by using addition

78	92	54
-34	-12	- 2

Page	TASK

61 Write in the missing numeral that makes the number sentence true.

10 - ___ = 6 ___ - 6 = 6 12 - 4 = _____

62 Write the correct answers to the following problems.

87	95	79
- 4	- 3	- 7

63 Write the answers to the following problems.

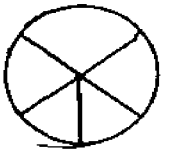
99	65	57
-24	-53	-34

69 Solve the following multiplication problems.

43	65	21
x 3	x 0	x 9

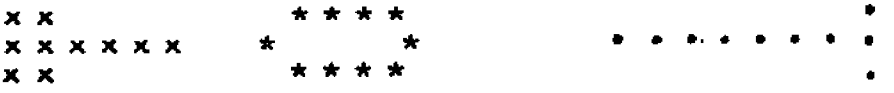
73 Color in parts of each figure to show the fraction given.

5/7 

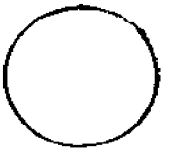
3/5 

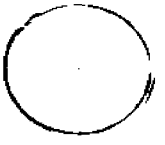
9/10 

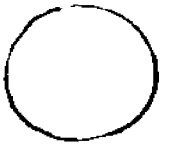
74 Draw a circle around half of the objects in each group.



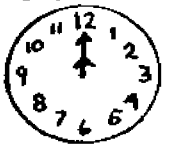
78 Divide each drawing as designated.

eighths 

thirds 

halves 

82 Write the correct time of each clock on the line below the clock.



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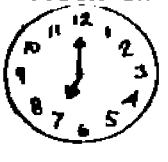

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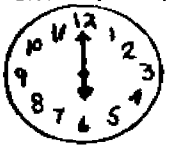
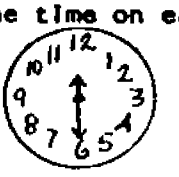
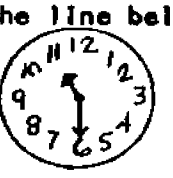


_____

Page TASK

84 Look at the clocks, write the time on each clock on the line below.

_____ _____ _____

86 Write the answer to these questions.

How many weeks are in a month? _____

How many weeks are in a year? _____

How many seconds are in a minute? _____

98 Write the answer to these questions.

How many quarters are in a dollar? _____

How many nickels are in a quarter? _____

How many pennies are in a half dollar? _____

104 Using a ruler, measure each line and write answer on line below it.

_____

_____

_____

_____

_____

_____

In addition to the above assessment the teacher should select a three item sample from each of the second grade non paper and pencil skills and test the child on these three items. In selecting the three items try to select an easy, an average, and a different item from each of the skills. If the entire skill may be assessed quickly (e.g., count to ten) the teacher should do this rather than selecting a 3 item sample. The following pages are non paper and pencil items. Put a check beside the page number if the child masters all three items which you select from that page.

page 12 _____ page 28 _____ page 29 _____

page 44 _____ page 59 _____ page 66 _____

page 83 _____ page 90 _____ page 97 _____

page 101 _____ page 102 _____

Sample Final Criterion Test

Grade 2

TASK: When given a pair of random numbers from 1 to 10 the student will indicate how much one number is greater than the other number.

CRITERION: 18/20

MATERIALS: Worksheet 21

TEACHER DIRECTIONS: Give worksheet 21 to the student. Ask the student to write how much greater one number is than the other number.

STUDENT DIRECTIONS: For each pair of numbers below, write how much greater one is than the other on the line beside the number.

1.	3, 1	2	11.	3, 0	3
2.	6, 2	4	12.	6, 1	5
3.	5, 1	4	13.	8, 5	3
4.	7, 4	3	14.	4, 6	2
5.	10, 6	4	15.	10, 3	7
6.	9, 8	1	16.	9, 2	7
7.	8, 4	4	17.	7, 6	1
8.	3, 2	1	18.	5, 0	5
9.	7, 3	4	19.	6, 5	1
10.	10, 7	3	20.	5, 8	3

Grade 2

TASK: Student counts orally by 3's to 30.

CRITERION: 10/10 on two separate consecutive occasions.

TEACHER DIRECTIONS: Ask the student to count aloud by 3's to 30.

1. 3
2. 6
3. 9
4. 12
5. 15
6. 18
7. 21
8. 24
9. 27
10. 30

The Individual Skills Record serves as a permanent record for the child and remains with the child as he moves from teacher to teacher. Since it is a continuous record of the child's progress, the Individual Skills Record also eliminates the need for lengthy re-assessments if the child changes teachers. In addition, the Individual Skills Record serves as an excellent method for reporting the child's progress to parents.

Using the above rule of thumb, if the participant finds that the child misses one or two items he is at the instructional level. In order to get her teaching objective the teacher merely turns to the page number beside the task.

Level 1

Skills for Arithmetic

INDIVIDUAL SKILLS RECORD

Student's Name _____ Teacher #1 _____

Date of Birth _____ School _____

Home Address _____ Teacher #2 _____

_____ School _____

_____ Teacher #3 _____

_____ School _____

Home Phone _____ Teacher #4 _____

Father's Name _____ School _____

Mother's Name _____

Page No.	Skill	Date Mastered	Teacher's Initials
Grade 2			
12	Recognizes numbers 100-200, at random		
17	Writes number; before, between or after given number (100-200)		
21	Writes how much greater one number is from the other (1-10)		
22	Writes how much less one number is from the other (1-10)		
23	Indicates which number is greater of a given pair		
24	Indicates which number is less of a given pair		
28	Counts to 30 by 3's		

Student's Name _____

Page No.	Skill	Date Mastered	Teacher's Initials
29	Counts to 50 by 5's		
33	Writes number of written number word		
36	Writes number of Hundreds, Tens, & Ones in proper column		
38	Separates odd numbers from even numbers		
39	Separates odd numbers from even numbers		
44	Addition facts 3 + 6 thru 9 + 9		
47	Finds missing factor in number sentences		
48	2 digit addition problems, no carrying		
49	Places horizontal problems in vertical form for addition		
50	Adds 2 digit by 3 digit and 3 digit by 3 digit numbers no carrying		
53	Adds one column problems of 3 numbers		
55	Checks one and two place subtraction problems by addition		
59	Subtraction facts for 2nd year		
61	Finds missing factor in number sentence		
62	1 digit by 2 digit subtraction, no borrowing		
63	2 digit by 2 digit subtraction, no borrowing		

Student's Name _____

Page No.	Skill	Date Mastered	Teacher's Initials
66	1, 2, and 3 Times Tables		
68	1 digit by 2 digit multiplication		
73	Colors-in sectioned figures as fraction requires (Fraction with denominator less than ten)		
74	Circles half of objects in groups given		
78	Divides drawings into 1/2, 1/3, 1/4, and 1/8		
82	Tells time on the hour		
83	Tells time of the hour and of the 1/2 hour		
84	Writes time of the hour and of the 1/2 hour		
86	Writes conversion of time-stated in question		
90	Tells the months of the year		
97	Gives 2 ways for making coin combinations		
98	Writes money conversion		
101	Tells comparisons with visual clues		
102	Tells comparisons with no visual clues		
104	Measures drawn lines		

APPENDIX F

Individual Weekly Lesson Plan

Summer 1972

READING

DIRECTIVE TEACHING PLAN

Student/class Paula Teacher Hartley (circle one) Date/s August 11, 14 & weekly daily 1st session 2nd session

Reading

Tasks (academic and Social)			Reward System					
Conditions	Behavior	Criterion	Model	Reward	Rate	Mode	Materials	Evaluation
Academic 1) When given a story to read independently	Paula will answer correctly 10 literal questions about the story	9/10	CM	Coupon 2p=1c	1punch each corr. ans.	AV	6.0 level reading mt. questions	
2) When given list of 30 short vowel words in review	Paula will pronounce correctly and use correctly in sentenses	28/30	OC	verbal praise	interm	AV		
3) On a matching list containing 8 sounds of OU	Paula will correctly match	95%	CM		upon meet. criteria	AV		
4) When given list of 25 words containing OO sounds	Paula will say correctly	24/25	OC	praise	interm	AV		
5) When given 20 sentences containing a & an	Paula will correctly write in a or an	18/20	CM	2pencil 5p=1p	1punch every 2nd corr. res.	V		
Social 1) Upon entering room at 9:00 am	Paula will say good morning to me	every morning	CM	gift Tues	1punch		on all social tasks this week Paula will be earning punches to buy surprise I am bringing Tues.	
2) Upon leaving room at noon	Paula will say good-bye	every day	CM	"	1punch			
3) When having juice & cookies at desk	Paula will talk with peers 7 min.	each juice time	CM	"	1p=1min			
4) When receiving reward during tutoring	Paula will say thank you	for each reward	CM	"	1p=1ty			

APPENDIX G

Completed Group Teaching Strategy Plans

Summer 1972

GROUP TEACHING STRATEGY PLAN

J.R. and P.H.
Subject: Social Modeling — Monday
Time: 10:30--11:00 am — August 14, 1972

TASK: To demonstrate the proper behavior for a child getting juice and cookies as well as drinking and eating them.

REINFORCERS: Each child will have a sack hanging on front of their desks and will receive 1 poker chip for the following:
1. Watching and listening--CM--1 token
2. Volunteering ideas--CM--2 tokens
3. Participating in Role-playing--CM--3 tokens

Rewards: If earned 3 chips=juice & cookies--CM
If earned additional 3 chips=1 bonus coupon--CM
Rate of reinforcement=intermittent

RAPPORT:
1. Imagine favorite foods
2. Imagine going to gym to get juice and cookies

SOLUTION TO TASK: List of possible solutions:

standing patiently awaiting turn
"thank you"
walking carefully
holding food carefully
sit with feet under table
use napkin correctly
clean off eating area
throw away papers

GAME SET: Give group a set, by telling them what to look for during role playing.
1. Teachers role play modeling desired behavior
2. Discuss with children the behaviors that occurred

ROLE PLAYING:
1. Teacher-with-child; modeling desired behavior
2. Child-and-child; role play modeling previous example
3. Discussion of behaviors (see 1 or 2) observed

SUMMARY:
1. Recall task
2. Discuss desired behavior for the task--stress its importance
3. Count chips and "cash in" for reward
4. Use what was learned, when going to get juice and cookies

GROUP TEACHING STRATEGY FORM

NAME D.C. DATE August 8, 1972

SUBJECT Arithmetic

*Note: When specifying reinforcement include the reinforcer, model & rate

TIME	CHILDREN	TASKS & CRITERIA
9:00	Cindy, Ann, Bill, Harry, Joe, Tom	When presented with a pair of one digit numbers on the board the child will circle the smaller or larger as requested by the teacher--2/2 in a row correct for criterion.
	Ted, Scott, David	When presented with a pair of two or three digit numbers on the board, the child will place the proper symbol (< or >) between them as requested by the teacher--2/3 correct for criterion.
	Marsha, Paula, Sandy, Don	When presented with a two or three groups of one, two, 3 digit pairs with inequality signs the child will add or subtract them maintaining the proper inequality sign in the answer--2/2 correct for criterion.
	Reinforcement: CM/1:2 correct/tokens OC/1:2 correct/verbal praise	

9:15	Children: Cindy, Ann, Bill, Harry, Joe, Tom. Task: When presented with a worksheet of 20 pairs of 1 digit numbers the child will circle the smaller or larger as indicated. Criteria: 18:20 Reinforcement: 3 tokens CM (18-20) 1 token (10-18)	Children: Ted, Scott, David Task: When presented with a worksheet with 50 pairs of two or three digit numbers the child will place the proper symbol (< or >) between them. Criteria: 85% comp. corr. Reinforcement: 3 tokens (42-50) CM 2 tokens (30-42) 1 token (15-30)	Children: Marsha, Paula, Sandy, Don Task: Using inequality cards the students will take turns making addition and subtraction problems for each other. Criteria: 3 times thru group with 1 time all corr. Reinforcement: 3 tokens if all are working

TIME			
9:20 9:25	Task: The child will subtract the smaller number from the larger number on the above worksheets to find how much larger or smaller. Criteria: review practice. Reinforcement: CM 1 token if 10+ finished.	Task: Criteria: Reinforcement:	Task: Criteria: Reinforcement:

Social Objectives

Task	Model	Reinforcement	Rate
Looking at the teacher (Large group)	O-C	Wink	interim as necess.
Raising hands (Large group & small)	O-C	Token	interim--total 4
Volunteering (Large group--Tom only) 1st time	C-M	Token for Tom & group	1:1
Volunteering (Large group--Tom only) thereafter	O-C	Verbal Praise	every time

APPENDIX H

Participant Observation Report Form
and
Example of a Completed Participant Observation Report

Summer 1972

PARTICIPANT OBSERVATION REPORT

Name of Participant_____ Date_____

Observer_____

Activity_____ Time of Day_____

_____Total Time of Observation_____

Observations

1. Did the instructor have the tasks behaviorally specified in writing? Yes_____ No_____

2. Was the task based on the assessment? Yes_____ No_____

3. Did the instructor specifically tell or show the student(s) what to do? Yes_____ No_____

   Give a specific example here:_____

   _____

   _____

   _____

4. Was C-M used? Yes_____ No_____

   4.1 If yes, did the instructor indicate to student(s) the specific task and what the rewards would be? Yes_____ No_____ Sometimes_____

   4.2 If yes, or sometimes:

TASK(S)	REWARD(S)
_____	_____
_____	_____
_____	_____

PARTICIPANT OBSERVATION REPORT

Name B. Date 8/10/72

Assignment# Reading Circle one: group--tutoring

Observer K.S. Time 9:00--9:30

1. Did the instructor have the tasks behaviorally specified in writing? Yes x No
2. Were the tasks based on the assessment? Yes x No
3. Did the instructor specifically tell the child what he had to do? Yes x No Explained his charts. Used examples by naming child in a hypothetical incident. "Joanne is speaking. Lisa wouldn't want to talk while she is."
4. If using C-M did the instructor specifically tell the child the specific task and what the reward would be? Yes x No Coupon is pasted right on the chart for all to see. He explained verbally also.
5. If using O-C did the instructor specifically tell the child why he got the reward? Yes x No Verbal praise--Charlotte put on her name card first without being told--then gave her coupon, too.
6. If using O-C or C-M did the instructor "pair" secondary reward with any interim or primary reward used? Yes x No Charles given coupon with praise for offering so much and volunteering.
7. Did the instructor give the child feedback (knowledge of results) as soon as possible after the completion of a task or after partial completion of the task? Yes x No "Deidra - you have your lips ready with sound." Encouraged her to go ahead.
8. Did the instructor complete any specific instructions given by the team leader during a previous instructional session? Yes No Some No instructions given

   A. List instructions completed:
   Whole group tasks 1, 2, 3, 4, 5, 6 Directions for Gr. I given by tape. B. explained Gr. II and B. did Gr. III.
   B. List instructions not completed:
   Did not explain whole group task 7-reinforcement schedule for group tasks.
   C. List specifically any new instructions; i.e. Functional assignments (number these instructions):
   Switched plans--will give seatwork. Information & reward during mini-reward time. Announced this at end of session. Also inserted new C-M for giving away "Dirty Dog" at end of session.
9. Other comments:
Use of tape in beginning of the lesson--effective attention-getter. Yet feel B. should have given some introduction as to what they were listening--Tape clear and loud enough to hear.

B.'s quiet, slow voice was a nice contrast to recorder voice--another attention-getter.

B. gave good praise to children--with children almost getting right answer--given lots of help & encouragement.

Perhaps after encouraging C. to raise hand with no results--he could have changed this part of lesson--so she could have responded. Later in lesson when discussing exceptions--C. responded in group with known words "come" and "here". Could have called on her or rewarded her for speaking up in group.

B. forgot to watch time--Group lesson ran over too long.

Good use of leaders in class--B. to explain seatwork in his Gr. III.

His seatwork was more challenging for top group this session. Too often we have not given them enough to do--Yet Gr. I seemed lost.

Taped directions for Gr. I gave group chance to succeed--Yet children did not respond verbally to this "Say robe" & children didn't--then he came over and gave additional encouragement. After that children still did not say it.

Though he made special effort to involve individual children in social objectives--he did not reward as often as he might.

Liked his C-M for giving someone "Dirty Dog" after mini-reward time.

APPENDIX I

EXAMPLES OF TEACHER COMPETENCIES IN PRECISION SPEECH AND APPLIED SUPERVISION DEVELOPED FOR THE 1974 SUMMER WORKSHOP

SKILLS FOR FUNCTIONAL SUPERVISORY TRAINING

By

Judy Finnegan and Penny Noyer

Edited by:

Thom L. Cooper

CONDITIONS	BEHAVIOR	CRITERION
1) As a demonstration for Level 1 participants 2) Using the Level 1 participants children 3) At the request of the supervisory team leader	The supervisory trainee will demonstrate the use of visual imagery with a group of children.	1) A lesson plan should be prepared in advance and of the lesson and should be distributed to the Level 1 participants 2) The lesson plan should include: A. The specific social objective for the group. B. A description of the "scene" which will be described to the children C. How "scene" will show proper behavior being reinforced.

CONDITIONS	BEHAVIOR	CRITERION
		3) The lesson should include the following: A. Establishing rapport with 1 or 2 short preliminary "scenes." B. Giving the children a set regarding the social objective and the reinforcement which will be involved in the "scene". C. The children should sit with their eyes closed during the "scene."

CONDITIONS	BEHAVIOR	CRITERION
		D. A "scene" should be described to the children which shows desirable social behavior and that behavior receiving reinforcement. E. Some sort of active responding (e.g. Hand raising) by the students as the "scene" is described to them. F. A summary of the "scene" and the reinforcement should be provided.

CONDITIONS	BEHAVIOR	CRITERION
		4) If possible children should be given a chance to meet the same social objective as was described in the visual imagery session. Reinforcement (O-C) should be provided to those who act as was described in the scene.

CONDITIONS	BEHAVIOR	CRITERION
1) Upon the request of the supervisory team leader 2) Dealing with a topic selected mutually by the supervisory team leader and the supervisory trainee.	The supervisory trainees will conduct at least three 15 minute presentations concerning Directive Teaching Techniques for the Level 1 participants	1) The presentation should be based on one of the nine functional "Blue Book" assingments* and meet the requirements described in the training guide.** 2) The presentation should involve children if feasible. 3) The presentations should involve a demonstration by the supervisory trainee whenever possible. 4) Provision must be made for questions from the Level 1 participants.

CONDITIONS	BEHAVIOR	CRITERION
		5) The presentation should meet any additional requirements as determined by the supervisory team leader.

*Stephens, T. M. TRAINING ACTIVITIES FOR IMPLEMENTING DIRECTIVE TEACHING WITH STUDENTS, Worthington, Ohio: School Management Institute, 6800 High Street, 43085, 1971

**Stephens, T. M. TRAINING GUIDE: IMPLEMENTING DIRECTIVE TEACHING WITH STUDENTS. Worthington, Ohio: School Management Institute, 6800 High Street, 43085, 1971

CONDITIONS	BEHAVIOR	CRITERION
1) After completing the group and tutoring observation forms 2) For the entire workshop.	The supervisory trainee will rewrite the original observation forms and return them to the Level I participants.	1) Both positive comments and positive suggestions for improvement will be made on each rewritten observation form. 2) At least 10 statements (positive comments and suggestions for improvement) will be made on each rewritten observation form. 3) Of the 10 statements 70% to 90% will be positive comments. 4) If only a limited number of positive items were observed.

CONDITIONS	BEHAVIOR	CRITERION
		during the lesson "Universal Positive Statements" (see attached) will be used to be sure that 70% of the statements are positive. 5) Negative observations on the original observation form will be re-written as positive suggestions for improvements using either the "Key Positive Sentence Beginnings" or "Positive Translations of Negative Statements" (see attached) 6) The supervisory team leader must approve all re-written

CONDITIONS	BEHAVIOR	CRITERION
		observation forms before their return of the Level I participants.

SKILLS FOR PRECISION THERAPY -- ARTICULATION

By

Kathy Gordon and Gena Williams

Edited by:

Thom L. Cooper

CONDITIONS	BEHAVIOR	CRITERION
While listening to an audio tape recording	Participants will discriminate between correct and incorrect productions of /3/ in isolation.	Unitl 85% correct

CONDITIONS	BEHAVIOR	CRITERION
1) Given a stopwatch 2) And a 20-minute tape recording of a conversation between a clinician and a client	The participant will compare the number of minutes of the client's speech with the number of minutes of the therapist's speech.	With no more than a 60 second error.

CONDITIONS	BEHAVIOR	CRITERION
1) While watching a videotape of a 10-minute therapy segment, of a therapist working with a phoneme in isolation. 2) While using a response score sheet	Participant will mark correct and incorrect responses	Unitl a 90% accuracy level is reached

CONDITIONS	BEHAVIOR	CRITERION
1) Using a 2-cycle semilogarithmic graph 2) Containing TRR/m and ERR/m plotted for 10 days 3) For one child 4) With both the TRR/m and the ERR/m decreasing over 20% for several days	1) Participants write three possible interpretations for the decrease in both TRR/m and ERR/m	1) The following interpretations will be counted as correct a) The task was too difficult b) Moving on to a more difficult skill this drop was expected c) The material was not carefully sequenced. d) The consequences were not functioning as reinforcers e) The rate of reinforcement was too low f) The therapist was talking too much.

CONDITIONS	BEHAVIOR	CRITERION
		2) In addition any response which is deemed acceptable by the team leader would be acceptable. A record of these alternate interpretations will be maintained.

CONDITIONS	BEHAVIOR	CRITERION
1) In at least one of the group therapy sessions 2) At the request of the team leader	The participant will implement a student operated contingency management and operant conditioning	1) A lesson plan should be prepared in advance of the lesson and should be distributed to the Level I participants 2) The lesson plan should include: a) The specific academic and social responses to be reinforced by the students b) The reinforcers which will be given c) The approximate rate of reinforcement

CONDITIONS	BEHAVIOR	CRITERION
1) In a workshop therapy situation 2) With one child 3) After implementing the lesson plan and counting responses 4) for each individual therapy session	1) The participant will plot the TRR/m and ERR/m -and- 2) The participant will write possible interpretations for more than a 15% change in the difference between the TRR/m or the ERR/m from those previous sessions	1) Data will be plotted correctly for at least 90% of the workshop sessions 2) Where appropriate interpretations will be made for at least 85% of the workshop sessions. 3) Interpretations must meet the criteria described in objective #8 and must include suggested modifications for the next day's lesson plan. These modifications must be approved by the team leader.

CONDITIONS	BEHAVIOR	CRITERION
		d) the reinforcers and approximate rate of reinforcement for the students using reinforcement 3) The lesson should include the following: a) Using a functional model <u>with reinforcement</u> to teach the students how to use reinforcement b) Using both student operated C-M and O-C c) Students should be taught to pair high level rewards.

CONDITIONS	BEHAVIOR	CRITERION
1) In a workshop therapy situation 2) With one child 3) After collecting and plotting baseline data 4) Using two digital counters 5) For each individual therapy session	The participant will implement the lesson plan and count the correct and incorrect responses	1) Data for each session will be recorded 2) There must be 80% agreement between the team leader for at least 60% of the sessions which the team leader observes 3) Feedback must be provided after at least 95% of the responses 4) The strategies outlined in the lesson plan should be followed unless the participant can explain why he changed them in the best interests of the child.

APPENDIX J

Topics for Areas of Instruction

Summer 1974

MODULE I

Individualized Instruction

The techniques of individualized instruction which are outlined below are designed to provide teachers with a framework with which they may analyze any system for individualizing instruction to children. Advanced modules are being developed which use the concepts developed here as a base. These new modules will cover new areas or explore existing areas in depth.

Content: The workshop content will provide those enrolled in the workshop with skills in the following areas:

1. Assessing the specific skill needs of both individuals and groups.
   a. Using both commercial and teacher made assessment materials for reading and arithmetic.
   b. Developing new assessment materials.
2. Utilizing commercial and teacher made materials and instructional activities to plan instruction.
3. Providing instruction to both individuals and groups which meets individual student needs.
   a. Techniques for tutoring.
   b. Techniques for group presentation.
   c. Developing skill groups.
4. Using the results of instruction.
   a. Using student performance to plan future lessons.
   b. Record keeping which provides for accountability.

5. Developing rules which facilitate classroom learning.
   a. How to develop positive and practical classroom rules.
   b. Developing rules which provide for an open but orderly classroom.
   c. How to involve students in the rule making process.
6. Using approval to improve student performance.
   a. What are some enviornmental reasons why children behave as they do?
   b. How do we teach school values?
   c. How can we change and enhance student performance through the use of learning technology?
7. Learning how and when you can ignore inappropriate behavior and how and when you must deal with it.
8. Learning when and how to use disapproval--and why not to very often.
9. Using student centered simulation activities to teach school values.
   a. How to use behavioral rehearsal (role playing).
   b. Using visual imagery.
   c. Using techniques which teach student centered decision making.
10. Conducting effective parent conferences.

MODULE III

Precision Speech Techniques

The precision speech techniques outlined below are designed to provide speech therapists with a framework with which they may evaluate and develop new speech programs and materials in the areas of articulation, stuttering, voice, and language. Advanced modules are being developed which focus on specific areas. One of these may be available this summer for people who have previously attended the base workshop.

Content: The workshop content will provide those enrolled in the workshop with skills in the following areas:

1. Methods for precision speech assessment and recording.
    a. Techniques for counting, computing, and recording speech responses with various phonemes.
    b. How to develop and use baseline and screening instruments for assessment.
2. Techniques for utilizing the Antecedent--Behavior--Consequence Model as a means of providing speech correction.
    a. Utilizing cuing techniques.
    b. How to evoke and shape difficult phonemes.
    c. Pinpointing your speech goals.
    d. Methods for utilizing learning technology.
3. Procedures for evaluating speech session.
    a. Interpreting results.

b. Using evaluation information to modify future speech correction sessions.

c. Record keeping which provides for accountability.

4. Developing and evaluating speech materials.

a. Guidelines for effective speech material.

b. Utilizing the above guidelines to develop and use new speech materials.

c. Methods for achieving transfer of training beyond the speech setting.

6. Introduction to and the limited utilization of sequenced therapy materials.

a. Speech correction programs.

b. Speech transfer programs.

c. Language programs.

7. Conducting effective conferences.

a. Parent conferences.

b. Teacher conferences.

MODULE IV

Applied Supervision

This workshop is an advanced module in which the people are taught supervisory skills through working with the workshop participants in modules 1.0, 1.1, and 2.0. Since this module requires that those enrolled teach others the skills and concepts learned in earlier modules, it is almost always necessary to have taken one of the previous modules as a pre-requisite. Those with questions regarding the qualifications for this module should contact Thom Cooper at (614) 422-8789.

Content: The workshop content will provide those enrolled in the module with skills in the following areas:

1. Techniques for assessing the quality of individual and group instruction.
    a. What are the basic teacher characteristics involved in individualizing academic and social instruction?
    b. How to observe teachers using the above characteristics.
2. Methods for providing written feedback to teachers.
    a. How to present suggestions for improvement within a positive framework.
    b. Methods for providing feedback on both teacher lessons and written materials.
3. Techniques for establishing rapport with a new school staff and principal.

4. Methods for conducting teacher conferences.
    a. Assessing where to conduct parent conferences.
    b. Steps in organizing for a teacher conference.
    c. How to use conferencing techniques.
    d. Simulation of typical types of problems encountered in conferencing.
5. Techniques for presenting workshop informations.
    a. How to demonstrate teaching techniques.
    b. How to present workshop information.
6. Administrative techniques for conducting groups.
    a. How to manage a group and conduct group meetings.
    b. Organizational duties associated with group management.
7. Methods for establishing and defining the supervisor's role at the local district (simulation activity).
    a. Using the job interview to establish and define the role of the supervisor.
    b. Techniques for communicating with administrators.

APPENDIX K

JOB DESCRIPTIONS--1974 SUMMER WORKSHOP

JOB DESCRIPTIONS--1974 SUMMER WORKSHOP

A. Executive Director of Workshop
Responsibilities:

1. Financial and Budget
2. Employment of Personnel
3. Directing Module Development
4. Setting Policy
5. Conducting two-day meeting on July 22 and 23

B. On Site Administrator

1. To report to the Executive Director
2. Day to day management of the workshop
3. Office Management
4. Interfacing with Columbus Public Schools
5. Meet with staff on July 22 and 23
6. Recruit children for the workshop
7. Meet with consultants regularly
8. Communicate with parents regarding schedule and transportation
9. Order and have available refreshments daily for children
10. Arrange three social events for workshop staff and participants
11. Arrange for duplication of materials as requested by Coordinators, Team leaders and Consultants during the workshop
12. Recruit clerical assistant
13. Provide Executive Director with a final report of the workshop activities
14. Be responsible for care of and use of building

C. Clerical

1. Report to on-site administrator
2. Duplicate materials as requested by the On-site Administrator
3. Answer telephone
4. Provide typing at the request of the Administrator
5. Run errands as requested by Administrator

D. Curriculum Coordinator

1. To report to the Executive Director
2. Coordinate the interactions among all components
3. Serve as a curriculum resource person to each coordinator as they work with team leaders
4. Meet two days in advance of workshop with staff
5. Obtain from each coordinator any changes in materials for module

E. Senior Component Coordinator

1. To meet regularly and report to the curriculum coordinator
2. To continue to develop the Applied Supervision workshop including an agenda and backup materials
3. To coordinate the Applied Supervision component
4. To initiate and develop the consultant trainer's workshop including an agenda and backup materials
5. To coordinate the consultant trainer component
6. To work with the component coordinators of all modules to coordinate agendas and other activities with the Applied Supervision component
7. To serve as a program consultant to all components
8. To assist the Executive Director and Curriculum Coordinator to plan the two day staff meeting to be held in advance of the workshop

F. Consultant Trainers

1. To report to the Senior Component Coordinator
2. To assist the team leaders and curriculum coordinator in developing and/or revising the workshop modules in advance of June 15, 1974 deadline of the Executive Director
3. To coordinate the work of the assistant team leaders
4. To work with team leaders and component coordinators in planning the work of the assistant team leaders
5. To develop and make presentations under the direction of the senior component coordinator
6. To provide written feedback to the people in the assistant team leaders component

G. Component Coordinators

1. To develop and/or revise the modules with team leaders in advance of the workshop. Deadline for completion to the Executive Director June 15.
2. To meet two days in advance of the workshop with the Curriculum Coordinator, Executive Director (July 22). On the second day meet with the above plus consultants and team leaders.
3. Daily coordination of team leaders in the same component
4. To utilize observational information obtained from the consultants
5. Revise the modules and submit at close of workshop

7. Meet regularly with the On-site Administrator
8. Meet regularly with the Curriculum Coordinator
9. Provide consultation to the film producer
10. Serve as an advisor to participants seeking information regarding professional certification and course offerings.
11. Serve as advisor to staff concerning specific problems with participants and students
12. Make recommendations to the Executive Director
13. Give a presentation concerning the workshop for parents and for school administrators
14. Present workshop presentation to parents
15. Present workshop presentation to school administrators
16. Design an evaluation system for each component
17. Supervise the evaluation helpers

K. Special Consultants

The use of special consultants is minimized since this workshop is set up on a systems basis, requiring close compatibility with each element. In some instances, workshop participants with special competencies are employed for specific assignments as special consultants. Rarely are special consultants used from outside the workshop staff and participants. This policy serves to minimize dysfunctional elements in the workshop. Special consultants are employed by the Executive Director and assigned to Component Coordinators for a specific, short-term assignment.

H. Team Leaders--

1. To report to the component coordinator
2. To assist the curriculum coordinator, consultant trainers in developing and/or revising the workshop modules in advance of the June 15, 1974 deadline of the Executive Director
3. Coordinate team activities
4. Reinforce concepts conveyed by the consultants in an applied setting
5. Provide written feedback concerning each participant's performance
6. Conduct demonstrations with children
7. Meet daily with team members
8. Monitor the completion of assignments of each participant
9. Conduct individual conferences when necessary with participants
10. Assign additional work to insure mastery of competencies by participants
11. Supervise the workshop experiences for the children assigned to the team
12. Insure that instructional materials are available to participants

I. Evaluation Helpers

1. To report to the daily consultants
2. Collect evaluation information
3. Maintain evaluation files
4. Summarize evaluation information
5. Write a final evaluation report

J. Daily Consultants--University Personnel

1. Report regularly to the Executive Director
2. Provide consultation on a regular basis to component coordinators
3. Visit and observe teams regularly during team meetings
4. Visit and observe teams regularly during teaching sessions
5. Provide evaluation helpers with observational information
6. Present lectures in accordance with the agenda

APPENDIX L

ACTIVITY DEFINITIONS AND OBSERVATION FORM

Duration Observation Code

This code is designed to record the amount of time spent in team meetings, group lectures, group instruction with students, tutorial instruction with one student, and dead or non-productive time. This is a continuous record for the day and the appropriate symbols should be placed under the time when each phase started and when it ended.

Using a stopwatch, the time should be rounded off to the nearest minute. If one phase ends and another begins during the same minute, record both using the top and bottom squares under the correct time.

Dead time may be part of the other phases, if so, place the symbol under the time started and ended, unless it starts and ends within the same minute. (i.e., 8:30, 31, 32, 33, 34, 35, 36). Begin stopwatch at first directive given to
TM D D TM
group or student for each phase. Idle time between these phases will be considered dead time if lasting over one minute.

Symbols Defined

TM - Team Meeting: Any time the team members are working, discussing or reviewing material, techniques, etc., as a group with their team leader. (This does not include time working with the students.)

GL - Group Lecture: When two or more teams are represented at a meeting where presentations of new materials or techniques are made. (This does not include the students.) These group lectures or presentations are usually given by those other than team leaders.

TI - Tutorial Instruction: Any time the teacher is working with a specified student in a one-to-one situation assessing or instructing.

GI - Group Instruction: When all of the students are working together as a group with one teacher instructing the entire group. The team leader upon occasion may be the instructor while teachers are observing.

D - Dead Time: Any non-productive time. This could be during any of the above phases. Idle time between phases will be considered dead time. (i.e., a meeting is to bgein at 1:00 but does not acutally start until 1:15 with an opening statement or directive: 15 minutes dead time should be recorded 1:00 1,2,3,4,5, 6,7,8,9,10,11,12,13,14,15. D
D
During any phase dead time may be recorded when more than a minute has lapsed with no reference to the topic of the meeting, materials, techniques, etc., of the workshop (i.e. reference to topics other than those concerning workshop).

When working with students dead time is:

A) Teacher gives direction: student finishes that directive and no new directive or response is given.

B) Teacher gives direction: student asks for help then waits (Dead time)

C) Teacher gives no directive

Duration Observation Form

Symbols

TM--Team Meeting TI--Tutorial Instruction
D--Dead Time(non-productive)
GL--Group Lecture GI--Group Instruction

Observer _____

Team _____

Date _____

8:30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	
9:00	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	
9:30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	
10:00	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	
10:30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	
11:00	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	
11:30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	
1:00	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	
1:30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	
2:00	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	
2:30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	
3:00	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	
3:30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	
4:00	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	

TOTALS: Total amount of time spent in each phase

TM _____ r ++ _____ TI _____ r++ _____

D _____ r++ _____

GL _____ r++ _____ GI _____ r++ _____

APPENDIX M

TALLY FORM FOR TEAM MEETING QUESTIONS

QUESTIONS RELATED TO AREAS OF INSTRUCTION

Observer _____

Areas	Date___ TM	Date___ GL	Date___ TM	Date___ GL	Date___ TM	Date___ GL	Date___ TM	Date___ GL	Date___ TM	Date___ GL	Totals
Rapport											
*Total											
Math											
Reading											
Modalities											
Reinforcers											
Operant Conditioning											
Contingency Management											
Social Modeling											
Associative Conditioning											
Schedules of Reinforcement											
Group Management											
Parent Conferences											
Parent Training											
Other											

*Tally and place total in lower square for both group lecture and team meeting.
TM -- Team Meeting
GL -- Group Lecture

APPENDIX N

ATTITUDE QUESTIONNAIRE 1974 SUMMER WORKSHOP

QUESTIONNAIRE

Please check your workshop component:

1.1_____ V.I._____ P.S._____ A.S._____

1. Did prior information received about the workshop adequately describe your training?

2. Do you anticipate implementing any of the techniques present in the workshop? If so, which aspect of the training would be most beneficial to you in your working situation?

3. What did you like most about the workshop?

4. What did you like least about the workshop?

   a. As an individual, how would you change it?

5. Was sufficient time allocated to each training area?

   a. What training area should have received more time?

   b. What training areas could be covered in less time?

6. Would you recommend this workshop to other members in your profession?

7. Compared to other workshops, university courses, and in-service training, would you rank this workshop as:

   a. Excellent _____

   b. Good _____

   c. Average _____

   d. Fair _____

   e. Unacceptable _____

COMMENTS:

APPENDIX O

OBSERVATION CODE AND FORM
FOR
DISTRIBUTION OF TEACHER ATTENTION

Observation Code
Distribution of Teacher Attention
(Tutorial Instruction)

This code is designed to record types of teacher attention during tutorial instruction. This includes potential reinforcement, student behavior, on and off task student behaviors and teacher attention. The teacher and student during tutorial instruction will be observed for 10 minutes each session on ten second intervals.

All teacher behavior which occurs in any ten-second interval is recorded in that interval on the top line while the student behavior is recorded on the bottom line.

The symbols designated for teacher and student behaviors are defined the same as on the observation code for distribution of teacher attention.

The recording sheet will be the same as used for teacher attention distribution, totals. (Group Instruction.)

OBSERVATION CODE
DISTRIBUTION OF TEACHER ATTENTION

This code is designed to record types of teacher attention. This includes potential reinforcement, student behavior, on and off task student behaviors and teacher attention. The class will be observed for 10 minutes each session.

You will select two students at random. Number all students and place the numbers in a hat. Draw out two numbers before you begin your observation. You should draw an alternate in case one of the students is ill or out of the room during your observation.

Behaviors

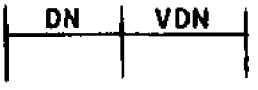
Teacher Behaviors

D Any direction, explanation or assistance the teacher gives to a single student. (Directions, questions or remarks given to the entire class should not be included.) This can be verbal or non-verbal. Examples: "Billy, work the five problems on page 7," or "When you finish your work come see me." (Standing near and looking at one student,) or explaining a math problem or pointing to an example on the page.

V Any verbal attention which could be a potential reinforcer. This could be directed to one student, a group, or the entire class. Examples: "Good," "OK," "I like the way you're working."

N Any non-verbal attention which could be a potential reinforcer. Examples: Standing within one desk of the student (facing or not facing student) pat on back, does not include smiles or facial gestures.

X Any negative verbal or non-verbal responses which could be a potential punisher. Could be directed to the entire class or a group. Examples: "That was bad work," "Stop that and be quiet," "No."

All teacher behavior which occurs in any ten second interval is recorded in that interval, e.g., 

Student Behaviors

R Any overt, academic response. Includes verbal answers to questions or questions related to the task.
Examples:
Teacher asks, "What number will you put here?" Student. "Nine, I think." recorded as R. Writing on paper, turning pages in book

(do not include flipping pages or turning pages rapidly). Includes writing answers on worksheet, manipulating project materials. Raising his hand is R in first interval it goes up, then either O or W is recorded in successive intervals in which his hand is raised. R takes precedence over W, O, and P. If an R, a W, an O and a P are all observed in the same 10-second interval, only the R is recorded.

W Working. The student is oriented to the task but shows no visable or auditory indication of active responding. Includes looking at the teacher when she explains or directs, looking at the book while reading. By orienting self to task, body must be facing direction of activity probably sitting at desk or at a table or standing near center of activity.
If student met all criteria for W but was engaged in a potentially interfering action or movement of any kind especially if it were audible and it occured for the entire 10 second interval, It would be recorded as O. If this action occurred for only part of a 10 second interval, W would take precedence.
W takes precedence over O. If W and O are observed in the same 10 second interval, only W is recorded.

O Off task. Absence of an R or W responses. O is recorded only if it occurs for the full ten-second interval.

P This stands for preparatory and post. All behavior of student with no teacher involvement which preceeds or follows some academic task. Includes sharpening pencil, asking to get drinks, or to go to the bathroom, putting materials away, handing in papers, getting out materials necessary to begin or end task.

Observe both teacher and student behaviors simultaneously each 10-second interval. Record the teacher behaviors on the top line, the student behaviors on the bottom line. The following data grid is an example:

Teacher behaviors recorded above the line:

Student behaviors re

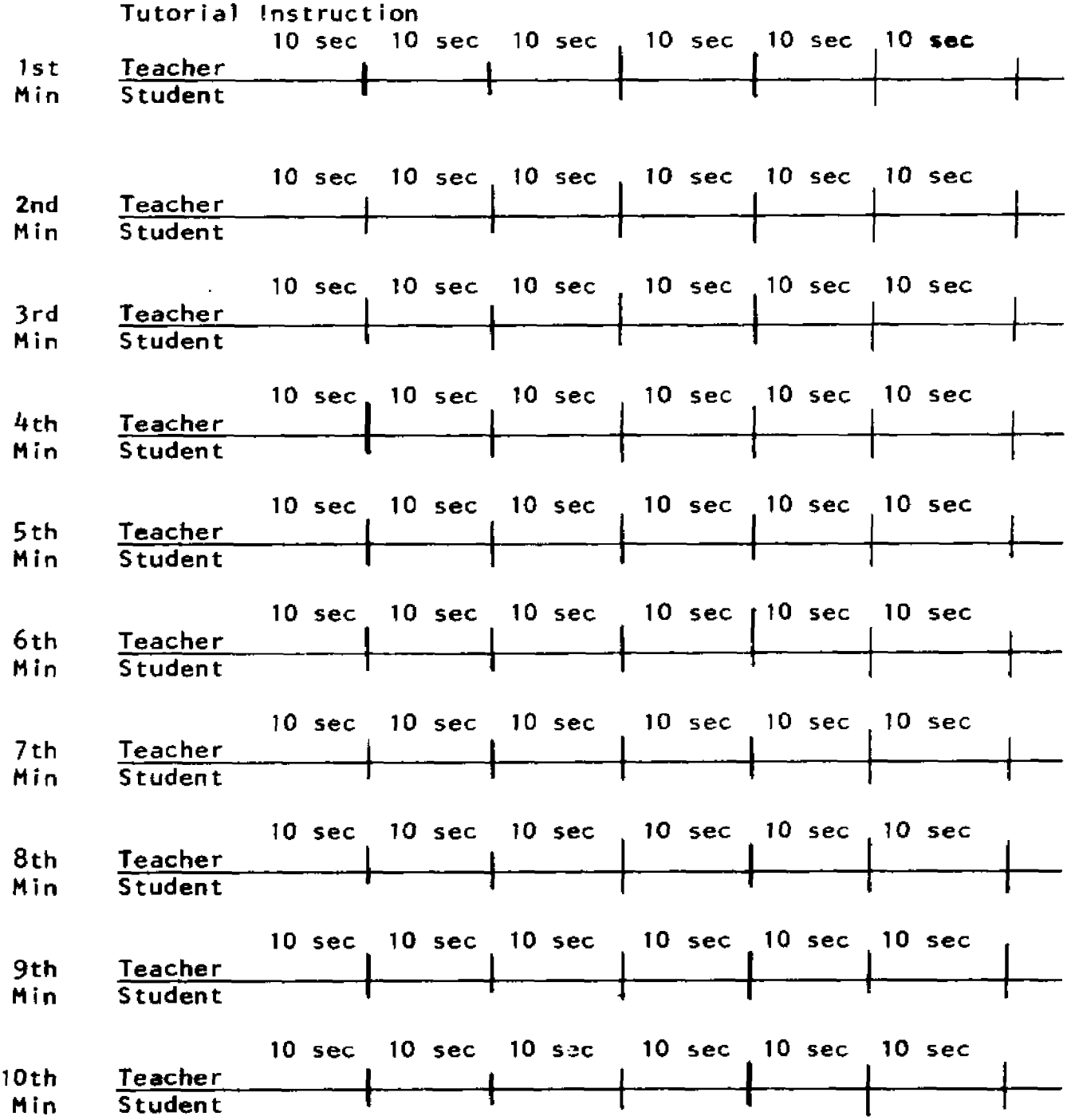
Student behaviors below the line:

DISTRIBUTION OF TEACHER ATTENTION
Observation Form

Student _____ Observer _____ Teacher Student

Behavior _____ School _____ D R
N W
_____ Date _____ V O
X

Tutorial Instruction



APPENDIX P

SAMPLE ASSIGNMENT CHECKLIST FORM
INDIVIDUALIZED INSTRUCTION MODULE

ASSIGNMENT CHECKLIST

Participant Name: _____ Student Name: _____

Assignments: Date Completed

I. Assignment: Establishing Rapport
   Information for Directive Teaching. _____
   Observation Form - First Session. _____

II Assignment: Assess Academic Skills
   Pre Reading Skills _____
   Reading Skills _____
   Arithmetic Skills - instructional range _____

III. Assignment: Assess Learning Modalities.
   Visual, Auditory
   Three Activities - Auditory Discrim. _____
   Three Activities - Auditory Recall _____
   Three Activites - Aud. Delayed Recall _____
   Three Activities - Visual Discrimination _____
   Three Activities - Visual Recall _____
   Three Activities - Visual Delayed Recall _____

IV. Assignment: Assessing Social Behavior.
   In school Observations _____

V Assignment: Assessing Reinforcement.
   5.1 (Social, Activity Token) _____
   5.2 (Observation, Interview, Forced Choice, Contrived Task _____
   5.3 (Operant Conditioning, Contingency Management) _____
   5.4 (Mini Job Board, C. M. with tokens; Operant Conditioning with tokens social behavior) _____
   5.5 (Changing rate) _____

VI. Assignment: Develop a D-T Plan. (One D-T Plan for Tutoring) _____

VII. Assignment: Instructional Strategy- Tutoring Plans _____

VIII. Assignment: Series of Instructional Strategies - Series of D-T Plans _____

IX. Assignment: Conduct a Parent Conference. Plan an interview _____

Additional things included in final packet to be sent to Dr. Stephens:
1. Observation Forms done on each participant.
2. D-T Plans prepared and executed with group of children
3. Evaluation of Team Leader done by each participant.

APPENDIX Q

PRE-POST TEST

INDIVIDUALIZED INSTRUCTION MODULE

INDIVIDUALIZED INSTRUCTION MODULE

MULTIPLE CHOICE

1. Assessment is -
   A. a recorded survey of the responses and skills a student knows and of those yet to be learned.
   B. a necessary method to determine grades for report card.
   C. not necessary if a teacher knows the student well.
   D. best accomplished by group standardized test.

2. Assessment is used to -
   A. determine grades for report cards.
   B. find specific skills the child knows.
   C. determine what skills would be taught next.
   D. A, B, and C.

3. Assessment of reading skills can be accomplished by -
   A testing in a one to one situation.
   B. group tests.
   C. observing the child perform.
   D. all of the above.
   E. none of the above.

4. A "Criterion Level" is -
   A. determined after papers are graded.
   B. the acceptable performance to receive an A, B, or C.
   C. a predetermined standard of acceptable performance for a student.
   D. the same as a grade level.

5. A criterion test is usually -
   A. a standardized test.
   B. a norm-referenced test
   C a performance based on individual assessment test.

6. Assessments are used -
   A. for reading only
   B. at the elementary level only
   C. for all areas academic and social at all levels.

7. Individualized instruction refers to teaching specific skills -
   A. in a one to one situation.
   B. to a small group.
   C. to a large group.
   D. to the whole class.
   E all of the above.

TRUE AND FALSE

1. ___ Smiling and verbal praise are primary reinforcers.

2. ___ When teaching a new task, reinforce continuously.

3. ___ A reinforcer is any event or object that immediately follows a response in time and increases the frequency of the occurance of that response.

4. ___ Modalities are the models of reinforcement.

5. ___ The instructional level refers to that which the child already knows -- i.e., he has received instruction in that level.

6. ___ When using Contingency Management, the child knows what he must do in order to earn reinforcement.

7. ___ When using Operant Conditioning, it is not necessary to specify why the child is being reinforced.

8. ___ Associative Conditioning refers to pairing social reinforcement with activity, token or primary reinforcement.

9. ___ Know, understand, and learn are descriptive terms used in writing behavioral objectives.

10. ___ Schedule of reinforcement refers to the frequency in which reinforcers must be issued in order to develop or maintain responses.

11. ___ Variable schedules of reinforcement usually result in responses that continue to be maintained over longer time span than responses that are reinforced on fixed schedules.

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