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## Competency Based Training to Facilitate Improved Quality Interaction Between Parents and Their Handicapped Infants and Preschoolers

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COMPETENCY BASED TRAINING TO FACILITATE IMPROVED QUALITY  
INTERACTION BETWEEN PARENTS AND THEIR HANDICAPPED  
INFANTS AND PRESCHOOLERS

A Thesis

Presented to the  
Department of Counseling and Special Education  
and the  
Faculty of the Graduate College  
University of Nebraska

In Partial Fullfillment  
of the Requirements for the Degree  
Master of Science  
University of Nebraska at Omaha

by

Jeanette A. Lengemann

July, 1984

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## THESIS ACCEPTANCE

Accepted for the faculty of the Graduate College, University of Nebraska, in partial fulfillment of the requirements for the Master of Science, University of Nebraska at Omaha.

### Committee

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Date *7/16/84*

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## CHAPTER I

### INTRODUCTION

A widely accepted characteristic of early intervention programs for handicapped infants and young children is the active involvement of the child's parents. Although the actual extent of parental involvement varies with programs, typically parents are assuming the role of instructor or presenter of developmentally based activities seeking to improve the skill levels of their developmentally delayed children. Simeonsson, Cooper and Scheiner, (1982) reviewed 27 programs focusing on intervention with "biologically impaired" infants and young children. Seventy percent of those programs specified a role for parents within the intervention for their children. The value of parent involvement is thought to be supported by this trend in early intervention programs.

The impetus for parent training with young handicapped children has stemmed from various sources. One source is evaluation research which has documented the successful intervention programs for disadvantaged children and their parents (Bronfrenbrenner, 1975). Furthermore, the success from Head Start programs involving parents in early intervention had direct impact on the law mandating public education for all handicapped people. The mandate for parent involvement programs has been increasingly supported by federal funds. Another source

for increasing parent involvement in intervention with young handicapped children is the unavailability and expense of trained professionals (Sontag, Burke, and York, 1973). Furthermore, parents are accepting the challenge of becoming resourceful in their own right to effectively deal with a lack of a sufficient numbers of support personnel (Sontag, Burke, and York, 1973).

Much of the past research substantiating parent involvement in intervention strategies focused upon individual parent training sessions (Bromwich, 1978; Kelly, 1981). Funds for training parents on an individual basis may not always be readily available. Individual training is beneficial yet costly in terms of manpower, actual therapy time, and potential learning capabilities of the parent and child. This concern for availability of funding is exemplified by a statement from Simeonsson, Cooper and Scheiner (1982): "It is likely that the cost effectiveness of human services in the current political and fiscal climate will continue to be questioned" (p. 635). This study was conducted on the premise that if the group parent training approach was effective, it would be more cost-effective than individual parent training. Cost effectiveness was examined in terms of administrative costs and the intervention impact a group program provides such as parental discussions, expression of feelings, ideas or concerns, and clarification of training methods and topics.

In terms of overall effectiveness, the Teaching Skills

Inventory (Rosenberg and Robinson, 1983) was utilized as a measure of the effects upon parental teaching skill level of a program designed to enhance parent skills in teaching their handicapped children. A specific aim of this study was to assess the feasibility of a group method of instruction in accomplishing such change in parents' skills.

### Hypotheses

This study attempted to determine the quality of the parent/handicapped child interaction and the effectiveness of the competency based training of parents' interactive skills in a small group method of instruction. The following hypotheses were tested.

1. The pretest ability of the Initial Training Group and the Delayed Treatment Group will not be significantly different at the  $p < .05$  level of confidence as measured on the Teaching Skills Inventory prior to the administration of the experimental condition to either the Initial Training Group or Delayed Treatment Group.

2. The posttest ability of the Initial Training Group will be significantly more positive at the  $p < .05$  level of confidence than the pretest ability of the Initial Training Group as measured on the Teaching Skills Inventory following the administration of the experimental condition to the Initial Training Group.

3. The posttraining ability of the Delayed Treatment Group will be significantly different than the pretest ability of the Delayed Treatment Group at the  $p < .05$  level of confidence as measured on the Teaching Skills Inventory following the four weeks of intervention to the Delayed Treatment Group.

4. The posttest ability of the Initial Training Group and the pretest ability of the Delayed Treatment Group will be significantly different at the  $p < .05$  level of confidence as measured on the Teaching Skills Inventory following the administration of the experimental condition to the Initial Training Group.

5. The post posttest ability of the Initial Training Group and the posttest ability of the Delayed Treatment Group will not be significantly different at the  $p < .05$  level of confidence as measured on the Teaching Skills Inventory following the administration of the training condition to both groups.

#### Definition of Important Terms

For a clearer understanding of the concepts of this investigation, the following terms are defined with specific reference to the subjects and procedures of the study.

1. Parent: The person responsible for the care of the child. Parent refers to the person receiving competency based training in this study. The term parent is used interchangeably with mother, father, and caregiver.

2. Handicapped Child: A child between the ages of six and thirty-nine months of age who has one or a combination of the disabling conditions which make him/her eligible for early intervention services under the law. In this study the handicapping conditions of the participating children were: Down's syndrome, hydrocephalus, spina bifida, mixed cerebral palsy, speech/language delayed, autistic, chromosomal abnormalities, cerebral hemorrhage, developmentally delayed due to prematurity, and severely/profoundly retarded.

3. Teaching Skills Inventory: A measurement tool designed to assess the effectiveness of a parent training intervention program designed to enhance parent/child interaction. The Teaching Skills Inventory was developed by Rosenberg and Robinson (1983).

4. Competency Based Parent Training: A four week (one hour per week) parent training session designed to address the content of desired teaching skills reflected in the Teaching Skills Inventory. The training was composed of a didactic and discussion format.

5. Initial Training Group: This group was alternately referred to as the experiment group. This group received the first training treatment and is referred to as ITG.

6. Delayed Treatment Group: This group was alternately referred to as the control group. This group received the second or delayed training treatment and is referred to as DTG.

7. His/Her: The use of the pronouns his or her are used interchangeably with no intent of gender bias.

## CHAPTER II

### REVIEW OF LITERATURE

This review of research addresses six issues related to parent involvement with teaching young handicapped children: parent involvement, parent education model, parent/infant interaction, maternal influences, infant influences, and evaluating the parent training effects. Each of these issues are important to consider when developing competency based parent training to enhance the parent/child interaction.

#### Parent Involvement

In the past decade, a successful shift in emphasis from child centered programs to parent intervention programs has occurred. The notion that parents are a child's first and most enduring teacher is exemplified in current research (Halsworth and Currie, 1982; Hayden and Haring, 1976; Lloyd, 1976; and Rosenberg and Robinson, 1983).

Forms of early intervention not using parent resources may be totally ineffective (Lloyd, 1976). Furthermore, the most productive and cost-effective form of developmental therapy is informed parental intervention (Halsworth and Currie, 1982). Thus, "...the maximum benefit of intervention for any handicapped child will come from a program which is mediated by parents and other family members" (Rosenberg and Robinson, 1983).

The worthiness of parent training is summarized well by

Stile, Cole and Garner (1979) who feel that parents hold unique positions in early intervention because they know their children best, spend more time with them, can work on a one-to-one basis, and reduce instructional and other service costs.

Although there is a movement toward increased parent involvement in intervention strategies, the focus on intervention has primarily remained the same -- the infant curriculum, infant skills needed to progress from birth to early childhood, still constitutes the major focus of parent intervention strategies. Parent instruction generally includes instructing the primary caregiver in appropriate developmental content for his or her infant (Bromwich, 1978). A discussion of the parent education model will clarify the parents' active role in parent training.

#### Parent Education Model

Typically, parent education programs are directed at increasing feelings of adequacy on the part of parents and fostering greater parental competence (Bromwich, 1978). Numerous researchers reflect this same principle (Cartwright, 1981; Derevensky, 1981; Kelly, 1981; Welsh and Odum, 1981). There exist two forms of delivering training within the parent education model, the didactic teaching approach and the parent discussion group approach (Bromwich, 1978). In the didactic approach, parents are taught how to care for and provide activities for their handicapped infants. Additionally, child



development theory and practice are incorporated to enhance the parents' understanding of the infant's course of development. The parent discussion oriented programs provide parents with the opportunity to discuss feelings, concerns, ask questions and seek information of other parents. A facilitator is usually present to shape the course of the discussion. The facilitator supports the parents' feelings of confidence and reinforces the observed positive parenting behaviors (Bromwich, 1978).

Successful parent training intervention have common factors regardless of the type of program, role of the parent and type and degree of handicapping condition of the children served (Cartwright, 1981). These common factors of successful intervention are: program structure, early intervention with coordinated efforts of involved professionals, individualized programs for children and parents, emphasis on planning reciprocity between parent and child within the family unit, and use of exercises to prepare parents as child advocates (Cartwright, 1981).

Derevensky (1981) claims that most parent education programs are based on a conceptual, philosophical and psychological model which provides their participants with information at awareness and skills levels related to parenting and understanding child development. The actual formats of such programs vary widely and may be designed exclusively for parents or for both parent and child.

Welsh and Odum (1981) found that parent involvement programs included similar traits as to those delineated by Cartwright. In addition to Cartwright's traits, Welsh and Odum found these traits in parent programs: additional components on child development, handicapping conditions, and developmental problems; observations of professionals working with their own child; opportunities to practice techniques and receive feedback; demonstrations of educational materials including toys and tools; and participation in lectures and discussions on topics of their particular interest.

Although there exist numerous and various types of parent education models and theories, the success of parent involvement in early intervention for handicapped infants and toddlers has been documented in recent research (Bromwich, 1978; Kelly, 1981). Most parent education models utilize an individualized intervention strategy. Kelly (1981) assessed caregiver/infant interaction by coding frequency and duration of initiating and responding behaviors of the caregiver and infant. Those behaviors were rated as either positive or negative. The dyads were stratified by infant age and randomly assigned to a treatment or control group. The treatment group received an individualized home-based intervention program designed to improve the quality of interaction between the infant and caregiver. The control group received no treatment.

The pretest videotape was shown to the caregiver to assist her in becoming become aware of her own interaction patterns. A large portion of the treatment was composed of analyzing each parent's specific behaviors and discussing those behaviors with the parent. Kelly discussed initiating and responding behaviors as well as desirable and undesirable behaviors on each videotape with individual parents. The treatment lasted eight weeks. A significant increase in frequency and duration of positive caregiver behaviors was found.

#### Parent/Infant Interaction

Because of the significance parent/child interaction has on infant development, there is interest in the parent/infant interaction model as an approach that commits to practice what research suggests -- direct parent involvement. Hayden and Haring (1976) contend that minimal valid research explaining the nature and consequences of mother/infant interaction exists. The parent/infant model is an approach that may substantiate the nature and consequences of parent/infant interaction. Furthermore, there is a need to translate research findings into techniques which will facilitate reciprocal mother/child interactions (Brazelton, 1976; Bromwich, 1978). Bromwich (1978) contends that even with evidence of relevant long range child development related to interactional processes, these interactional processes have been given insufficient attention.

Because interaction oriented intervention is composed of the infant and parent it is not going to be sufficient to concentrate solely on the infant curriculum or the parent education model. Successful intervention is linked to both the parent and child and should include both parent and child components of instruction.

Two theoretical constructs, bonding and attachment, relate to stages in the ongoing developmental process of interaction between infants and parents. Bromwich (1978) describes bonding as an emotional tie between parent and infant and attachment as an infant's expression of distress when separated from the mother. Once infants demonstrate the processes first of bonding as newborns and attachment during the first year of life, they are capable of giving signals or behavioral cues to the parent who in turn reads the cue and responds to it. This response serves as a form of communication which the child gradually learns to interpret. This reciprocal reading and responding to each other's cues form the nucleus of a complex interactional system between parent and child (Bromwich, 1978; Lasky and Klopp, 1982).

When bonding and attachment have not been established the interaction will not be mutually satisfying and therefore not reciprocal in nature and will not enhance the infant's development (Kass et al., 1976). Handicapped children and their

parents are at risk to establish mutually satisfying interaction patterns. Handicapped infants have demonstrated patterns of behavior which differ from usual attachment behaviors of nonhandicapped infants. Handicapped infants' differential behaviors are: late vocalization, lack of facial expressions, nonestablishment of eye contact, and unusual patterns of postural adjustment to being handled (Stone and Chesny, 1978).

Furthermore, "these patterns of behavior impact directly on the functioning mother/infant dyadic system, in that the usual biologically and culturally structured reciprocity between the behaviors of one and the responses of the other are disturbed" (Stone, 1979). A breakdown of interaction between mother and handicapped infant or child is a relatively permanent event in that it creates self-reinforcing consequences (Kass et al., 1976). More specifically, if a handicapped child does not react to his mother's attempts at communication or to his environment because of the characteristic of the interaction, the interaction will not be satisfying for the mother. The mother, in turn, withdraws from further attempts at interaction because she is not stimulated to continue the interactive process nor is she reinforced for her efforts at communicating (Stone, 1979). This element of responsiveness by the parent is critical in establishing a reciprocal interaction pattern with the infant. In fact, if reciprocity does not occur, the infant may receive less

stimulation when he actually needs more (Horowitz, 1980; Tronick, 1980).

Stone (1979) sees a need to intervene in interaction patterns of behavior that are not resulting in reciprocity: "The parent cannot rely on naturally occurring intuitive patterns of child care, but must learn a new set of parenting behaviors and expectations which will match the unique characteristics of the child" (p. 29). According to Clarke-Stewart (1977) one way to develop a mutual attachment is through playful and positive interaction. Over time this interaction can become reciprocal in nature.

#### Maternal Influences

Varying patterns of attachment behaviors in handicapped infants have led to interest in parenting behaviors in families. Based on interactions with their own handicapped children, parents involved in intervention formulated guidelines for other parents to use as a means to acquire reciprocity in interaction. These behaviors elicited significant results in research due to the frequency of observed behaviors and the unique match of these parent behaviors to the unusual behaviors of the child (Stone, 1979). The parent behaviors listed below "were developed from observations of parents in need and from observations of parents who independently had developed reciprocal parenting behaviors" (Stone, 1979). The parent behaviors that elicit reciprocal

interaction are alertness and responsiveness: to the infant's distress signals, state of arousal, and nonattendance to stimuli; establishment of eye contact with the infant; effective communication with the infant; and enjoyment in being with the infant (Stone, 1979).

Because the mother can control or at least can make a conscious choice as an adult over her behavior toward her infant, efforts at intervention should help her make choices in her action toward the infant that would result in a quality and mutually satisfying interaction (Bromwich, 1978). This could be accomplished, as suggested by Clarke-Stewart (1977), through playful and positive experiences.

In a model that views intervention as reciprocal in nature, the maternal influences that affect the infant are as significant as the infant influences affecting the mother (Bell, 1970). Brazelton (1976) summarizes a typical mother's behavior in a period of interaction. She reduces interference of the activity; brings the child to an alert, receptive state; creates an atmosphere of expectancy for the child; accelerates the child's attention to receive and send messages; allows for reciprocity in interaction by an awareness of child's signals; and gives the child time to respond with his behavior and recover from the activation from her cues (Brazelton, 1976).

Each of the previous statements are based upon an assumed

intention on the part of the mother. The intention is signified by the quality of the mother's behavior. Because the mother has the opportunity to control the interaction she is in a position to utilize such guidelines to develop optimal levels of reciprocity with her handicapped infant or toddler (Brazelton, 1976).

Maternal influences may have two major consequences for the infant. Yarrow et al. (1975) describes a mother as a mediator between objects and the infant as well as being herself a social stimulus for the infant. Furthermore, research supports the premise that the quality of parent/infant interaction is critical to infant development (Ainsworth and Bell, 1974; Beckwith et al., 1976; Bromwich, 1978; Eheart, 1982; Marshall, Hogrenes and Goldstein, 1973; Matas, Arend and Sroufe, 1978; Rubenstein, 1967; Stevenson and Lamb, 1979; Stone, 1979).

Clarke-Stewart (1973) examined maternal influences on the infant and found a high positive correlation between maternal responsiveness and the infant's Bayley mental score; speed of processing information; scheme development; and language, social, and emotional indices of competence. In fact, Bronfenbrenner (1974) sees the mother as the primary agent of intervention. Additionally, when a reciprocal relationship between parent and infant exists over a long period of time, a strong emotional attachment increases the motivation of the child to attend to and



learn from the mother.

### Infant Influences

Infant influences on maternal behavior are an equally important variable in the interaction process (Bell, 1970). Bromwich (1981) reports that many researchers, in various contexts, give evidence of the infant's influence on the parent (Beckwith, 1976; Brazelton, Koslowski and Main, 1974; Fraiberg, 1974; Goldberg, 1977; Korner, 1974; Stern, 1974). Brazelton (1976) describes the typical pattern of infant reactions to interaction attempts as an explanation of behavioral cues to which mothers could respond. The infant reactions occur in this typical pattern. The infant looks toward mother with relaxed face and slowly moves toward her, orients to mother with bright facial expression, assumes state of attention while alternately sends and receives cues, accelerates looking sequence coupled with vocalizing and/or smiling, experiences peak of excitement and becomes jerky and intense, decelerates excitement while face assumes a duller appearance. These behaviors affect the maternal response in the interaction process (Brazelton, 1976).

Clarke-Stewart (1977) contended that the infant's looking, smiling, and vocalizing behaviors seem to influence the total time they spend together and how responsive the mother is to distress signals from the infant.

Bell (1970) found that an infant or young child initiates

fifty per cent of the interactions that occur with adults. It is not surprising to discover that if handicapped infants do not initiate interactions, a large portion of potential interaction is lost. Bromwich (1978) discussed the notion of socially competent infants who are capable of eliciting positive responses from parents. A handicapped infant might be considered socially incompetent if he was unresponsive or difficult to interpret during interaction, which results in inadequate feelings by the parents. These feelings of inadequacy in turn elicit parent unresponsiveness which will not optimally develop the infant.

Interaction between parent and infant should ultimately be reciprocal in nature. Parent and infant influences both affect the quality of interaction. This review of research concerning parent/infant interaction provides the framework for a potentially effective intervention strategy. Hayden and Haring (1976) discuss the importance for intervention for parents in parent/child interaction. Hayden and Haring (1976) comment that "...meaningful parent involvement does not 'happen' automatically. It requires training, encouragement and acknowledgement of the parents' contribution to their child's development" (p. 589).

By modifying the mother's perceptions of the infant or child's behavior and her own behavior as well, a more reciprocating interaction may develop. Once a parent achieves a mutually satisfying interaction, the child will be more capable

of exploring his/her environment, which will motivate the parent to provide a more stimulating environment. A more stimulating environment causes the child to interact and a cyclical pattern of interactive behaviors emerges. When an infant is motivated to interact with the environment he maximizes his opportunities for optimal development (Bromwich, 1978).

#### Evaluating Parent Training Effects

A final issue of consideration is how to determine the effectiveness of any intervention strategy. In their concluding remarks in a review of current research with biologically handicapped children, Simeonsson, Cooper and Scheiner (1982) recommended a three step process to evaluate early intervention programs. The steps are: to clarify objectives of the intervention strategy, to determine who is the target population, and to determine what measurements form the basis for evaluating effectiveness. Simeonsson (1975) has argued that a measurement technique that is valid and reliable is needed to analyze the effectiveness of early intervention programs. Research associated with handicapped infants in particular is even more difficult to assess and limitations restrict this type of research. Simeonsson et al. (1975) argue that limitations in research with handicapped infants exist in terms of definitional issues, the nature of the instruments, characteristics of the child and the examiner, and appropriateness of analysis. In fact

serious concerns regarding the ability of existing assessment measurements to capture the essence of intervention impact have been raised (Kopp, 1979; Sheehan and Krakow, 1981). Furthermore, efforts to evaluate procedures for training parents to provide home educational programs have not been precise (Rosenberg and Robinson, 1983). Typically the assumption is that changes in parent skills will be reflected in child performance. Rosenberg and Robinson (1983) state that direct assessments of child behavior are not likely to be prescriptive with respect to strategies needed to refine procedures for parent training. Furthermore, Rosenberg and Robinson cite Bricker (1970) as seeing a need for training parents, "strategies that have been applied to the development and refinement of specific instructional procedures for working with children need to be applied to the development and refinement of specific instructional techniques for training parents to work with their own children" (p. 4). The Teaching Skills Inventory (TSI) was developed as a measure to evaluate the effectiveness of instruction provided to parents (Rosenberg and Robinson, 1983). Parental teaching skills were evaluated by rating a videotaped segment of an individual parent interacting with his/her handicapped child. Rosenberg and Robinson (1983) argued that a measure of change in parent skills would be an important indication of the effectiveness of an intervention program. Rosenberg and Robinson (1983) state that a measure of parental skill should possess the following

characteristics:

"The measure should permit the assessment of a wide range of parental teaching skills. This assessment should be in a context where parents are free to interact with their children in a manner that reflects the style and the task situations normally engaged in at home. The measure should permit the assessment of parent skills across a broad range of techniques since it is unlikely that any one set of teaching skills or task situations will be appropriate for handicapped children of varied disabilities. The measure should be simple enough to facilitate its use in intervention programs by teaching staff" (p. 5).

## CHAPTER III

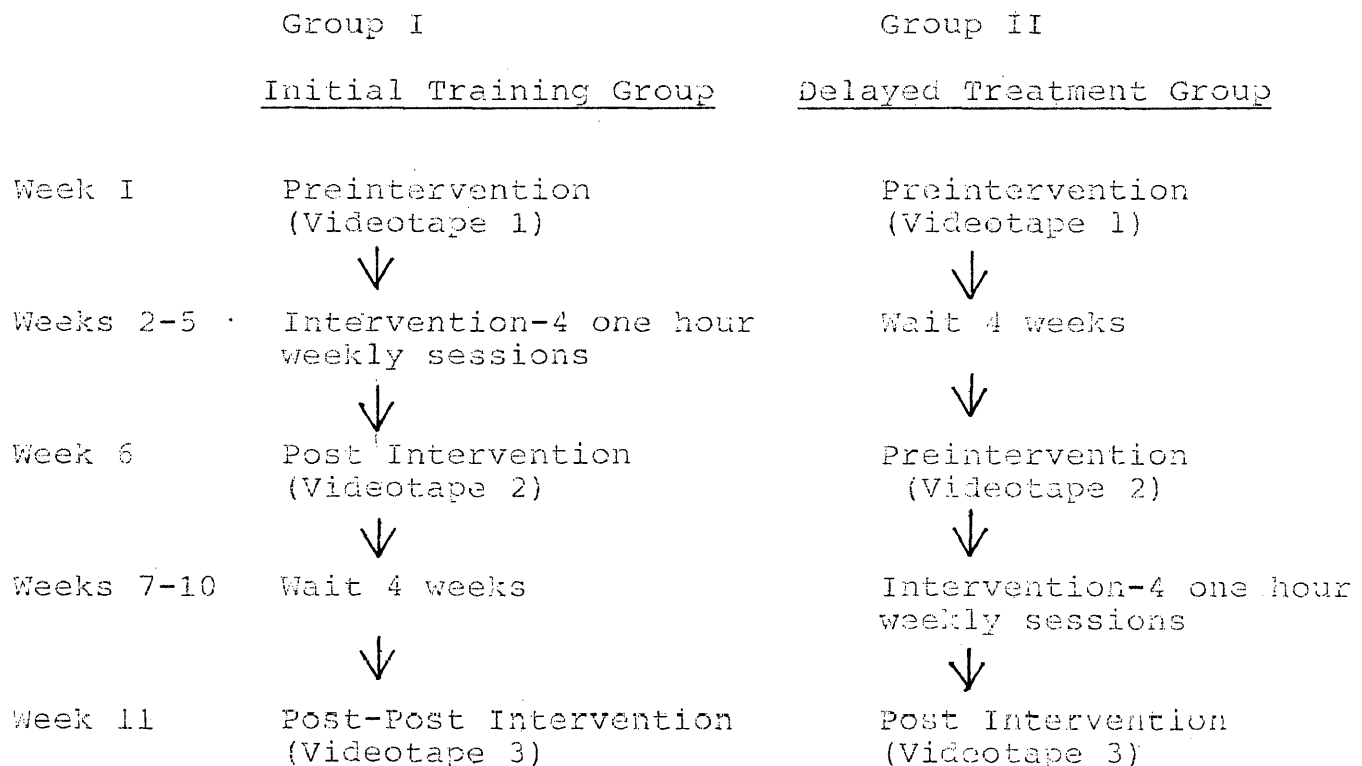
### METHODOLOGY

#### Experimental Design

In order to assess changes in the quality of parent/child interaction which were specific to the intervention strategy, a pre-post intervention repeated measure design, which included both an experimental (Initial Training Group) and a delayed treatment control (Delayed Treatment Group) condition was utilized. A figure illustrating the experimental design is presented in Figure 1.

Figure 1

#### Experimental Design



## Recruitment

Parents were recruited as volunteers from the Omaha Public Schools Preschool Handicapped Program. Letters of invitation were sent to all parents in the program. The letter explained the purpose of the study, the procedure for the assessment of parent teaching skills through the three videotapes of parent/child interaction, four one hour training sessions for the parents, and the twenty-five dollar payment to all participants for completion of all project commitments (3 videotapes and 4 training sessions). In the letter, parents were asked to call the researcher or their child's OPS home-based teacher if they were interested in volunteering for participation in the study. Eighteen parents responded to this initial letter. A copy of the letter of invitation is in Appendix B.

The procedure and a brief description of the training sessions were explained to the ten homebased teachers at a staff meeting. The teachers were asked to submit a list of candidates who might potentially benefit from such a service. In an effort to increase the amount of responses from parents, another identical letter was sent to the parents whose names appeared on the teachers' list. Teachers were encouraged to positively support the study and subsequently encourage parents to participate in the competency based parent training.

The recruitment effort resulted in a total of twenty-one

parents who expressed interest in the training sessions. Due to scheduling conflicts, lack of transportation and an unwillingness to attend all training sessions and videotapes, three of the twenty-one parents never began the training. Of the remaining parents, three of the parents eventually dropped out of the study due to heart surgery, an extended illness, and scheduling conflicts.

### Subjects

A total of 15 families, 14 mothers and 1 father, participated in the competency based parent training. The average educational level of the mothers and father was completion of high school. The educational level of the parents ranged from completion of seventh grade to a Master's degree plus additional college hours. Two of the participating mothers had dropped out of high school, two of the mothers graduated from special educational settings, three of the mothers had Bachelor degrees in education, and two of the mothers had Master's degrees. The occupations of the parents were: two secretaries, two students and the remainder were homemakers. The ages of the parents ranged from 19 to 35 years of age; the median age was 26 years of age.

Of the fifteen dyads, ten of the children had been enrolled in the Omaha Public Schools preschool handicapped program the



year prior to the parent training. The remaining five families had enrolled in the Omaha Public School program during the year.

The chronological age of the children ranged from 6 months to 39 months. The severity of the children's handicaps ranged from mild to severely/profoundly disabled. The mental ages of the children ranged from 0-1 month to an age appropriate cognitive functioning level. Pertinent characteristics of both parent and child are presented in Table VI.

#### Videotaping - Group Assignments

An individual pretraining videotape was collected on all dyads. This involved the parent and child coming to the Hattie B. Munroe Pavilion at the University of Nebraska Medical Center for a predetermined appointment. Parents were given the option of bringing their own materials or playthings or using a variety of toys supplied at the setting. The collection of provided toys included: rattles, various sized balls, blocks, dolls, toy radio, carousel bells, jack in the box, farmer says, Pound Around, xylophone, book, stacking cups, etc. The videotaping took place in the "Family Room" which is decorated to simulate a comfortable living room. A couch, love seat and chair circled the carpeted play area which was defined by a white sheet. Parents were instructed to play with their child as he/she might play at home. The videotaping was conducted by a media specialist and was accomplished by the use of a remotely controlled video camera. A

total of ten minutes was allowed for each videotaping.

After completion of each of the pretraining tapes the parents were asked if the videotape typified the parent and child's usual playtime together. If not, an appointment was made to make another videotape. Retaping occurred in only two videotapes of the same dyad when the child was totally unresponsive and when the child stared at the lights in the ceiling for the duration of the ten minute segment. All of the pretraining videotapes were completed within a five day period. Upon completion of the initial videotape, parents were randomly assigned to Initial Training Group (experimental group) or the Delayed Treatment Group (control group.) A total of nine mothers were assigned to the Initial Training Group experimental group and eight (five mothers and three fathers) were assigned to the Delayed Treatment Group.

Five weeks later, the second videotaping sessions occurred in the same procedure as the first. Appointments were made and parents were videotaped playing with their child as they would at home. Due to inclement weather, scheduling was difficult but the tapes were completed in seven days. The third and final videotape occurred five weeks later. An identical procedure was followed to complete the dyads' videotapes.

### Intervention

A detailed explanation of the intervention is in Appendix D. A summary of the competency based parent training schedule is in Table I. The first training session served as an introduction to the study. Consent forms were signed by the parents, a copy of this form is presented in Appendix B. Questions concerning requirements, procedures and clarification of the study were addressed. The parents were given an information sheet, containing census data questions, to fill out. A copy of the information sheet is presented in Appendix B. The parents were given a general overview of the concepts to be covered in class. Videotapes presenting general interactional approaches in response to the child's behavioral cues were discussed. The parents were given an assignment to be highly directive and totally unstructured with their child during the two different play situations and record the reactions of their child.

One week later parents attended the second class which focused upon establishing an appropriate play time with their child, including flexibility of uses of toys, and adjusting the complexity of the activity to the child's level. Verbal and nonverbal instructional skills were discussed, and parents watched a movie entitled "Benjamin" emphasizing sensitivity to a child's developmental communication needs through facial

expressions, gestures, and/or vocalizations. Parents also watched a videotape entitled "Coos to Comments" delineating the development of language and conversations. Parents discussed questions focused on issues of normal and deviating language patterns. They also discussed the assignment from the previous session.

During the third week, parents participated in activities designed to clarify activity objectives and appropriately adjust the complexity of the activities. Parents viewed a videotape demonstrating these skills, and reinforcing the skills emphasized in the first two sessions which was followed by a discussion. Most of the children in the Initial Training Group were functioning in Piaget's sensorimotor stage of development therefore a brief discussion of the skills at each of the six levels of the sensorimotor stage followed the videotape. The Delayed Treatment Group consisted of children functioning at the preoperational stage of development therefore the discussion addressed the preoperational stage and not the sensorimotor stage. One week later during the fourth and final training session, parents learned the major principles of the training: (LOVE). These are:

- L - lots of behavioral cues, read them appropriately;
- O - offer choices of activities;
- V - various and flexible uses of toys; and

E - expect a response, give child enough time to respond.

Parents viewed a final videotape of parent/child interaction to reinforce labeling the given interaction activity with the appropriate letter of the acronym, LOVE. The videotape demonstrated both obvious and subtle examples of positive and negative interaction. The trainer (the author) encouraged the parents to label and discuss the activities in terms of the acronym. The trainer summarized each session to reinforce the newly learned skills.

TABLE I  
Competency Based Parent Training Schedule

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Week 1	<p>Introduction</p> <p>Reading and responding to a child's behavioral cues</p> <p>Self selection vs. parent directiveness</p> <p>Home work assignment</p>
Week 2	<p>Establishing an appropriate play time</p> <p>Flexible uses of toys</p> <p>Adjusting complexity of activities to child's level</p> <p>Viewed three videotapes of dyads interacting during a play situation</p> <p>Discussion</p>
Week 3	<p>Nonverbal and verbal communication</p> <p>Viewed "Benjamin"-development of communication</p> <p>Viewed "Coos to Comments"-development of communication</p> <p>Sensorimotor/Preoperational Stages of Development.</p>
Week 4	<p>Summary - Acronym LOVE</p> <p>Two videotapes of parent/child interaction</p>

### Teaching Skills Inventory

The TSI was developed as a measure which "met the criteria of flexibility and ease of use and to utilize the measure to determine whether it would be sensitive to changes in parent teaching skills that occur during participation in an intervention program." Version III of the TSI was used in this study. Each item on this version of the inventory is rated on a scale of 1 to 7. In Version III each point of the scale items has a descriptive sentence accompanying it for rating purposes. A copy of the Rating System of Version III of the TSI may be found in Appendix C. All nine rating items on Version III of the Teaching Skills Inventory were rated in this study. The first item, structure, was indicative of the number of adult initiated vs. child initiated activities. The second item, tracking, was a reflection of how sensitive the adult was to the child. The third item, clarity of activity objectives was a judgement about how clear the objective was to the rater. The fourth item, developmental appropriateness of the activities and the child's developmental level and physical capabilities. The fifth item, appropriateness of verbal instruction, was a judgement of the parent's verbal instruction in terms of informative content, clarity, and appropriateness of the instruction in relation to the activity. The sixth item, appropriateness of non-verbal

instruction, was a judgement of the parent's ability to use physical guidance, prompts, modeling, pointing, and gesturing. The seventh item, adjustment of activity complexity, was a judgement of the parent's use of appropriate modification and conversion strategies during the interaction. The eighth item, appropriateness of feedback, reflected the proportion of instances of feedback to child responses and the quality of the feedback. The ninth item on the Inventory was a judgement of the degree of child participation in the interaction. A summary of the items on the Teaching Skills Inventory is presented in Table II. The interrater reliability provided by the author from Version III of the Teaching Skills Inventory is presented in Table III. The use of the Teaching Skills Inventory did reflect a change in parents' skills as a function of the individualized competency training that the author of the Inventory provided.

The validity of the revised version of the Teaching Skills Inventory as a measure which could detect change in parent skills was documented by 55 parent/child dyads enrolled in the Infant Development Program at Meyer Children's Rehabilitation Institute from September 1976 to August 1977. Interrater reliability was assessed by use of Pearson product moment correlations. The average interrater reliability was .76 (range=.64 - .83) for the rating items. Internal consistency was assessed and found to be



satisfactory. The coefficient alpha for the items was .95. The validity was established on an individualized parent training strategy. The purpose of this study was to measure the change in parents' skill performance as a function of a group method of competency based parent training.

Table II  
Items of Teaching Skills Inventory

Item #	Item	What Item Measures
1	Structure	number of adult initiated vs. child initiated activities
2	Tracking	how sensitive the adult was to child
3	Clarity of Objectives	how clear the objective was to the rater
4	Developmental Appropriateness	match between requirements of activities and child's developmental level and physical capabilities
5	Appropriateness of Verbal Instruction	Informative content, clarity and appropriateness of instruction in relation to activity
6	Appropriateness of Nonverbal Instruction	Parent's ability to use physical guidance, prompts, modeling, pointing and gesturing.
7	Adjustment of Activity Complexity	Parent's use of appropriate modification and conversion strategies during interaction.
8	Appropriateness of feedback	Proportion of instances of feedback to child responses and quality of feedback
9	Child Participation	the degree of child participation in the interaction

Table III

Interrater Reliability on Version III  
of Teaching Skills Inventory

<u>Item Title</u>	<u>Avg. Percent Agreement</u>	<u>Avg. Point Difference</u>
1. Structure	87	.93
2. Tracking	88	.86
3. Clarity of Objectives	87	.93
4. Develop Appropriateness of Activities	92	.57
5. Appropriateness of Verbal Instruction	90	.71
6. Appropriateness of Non-Verbal Instruction	85	1.17
7. Adjustment of Activity Complexity	89	.79
8. Appropriateness of Feedback	86	1.00
9. Child Participation in Interaction	94	.43
Total Average Percent Agreement	88.66	

### Assumption and Delimitations

The study is based on four assumptions. The first assumption was that parents who volunteered to participate in the study were sincerely interested in enhancing the quality of interaction with their handicapped child. The second assumption made a multi-media, modeling, and discussion format for the class would represent appropriate instructional procedures for the variety of parents' learning capabilities. The third assumption was that an author trained in use of the Teaching Skills Inventory would minimize errors in data collection. The fourth assumption was that the training sessions centered around concepts that were comprehensible and functional for the attending parents.

Three delimitations were made when employing this study. The first delimitation was that due to the size and characteristics of the experimental group, the findings of the study are applicable only to the subjects who participated in the study. The findings of the study are applicable to the specific training sessions presented during this study. The final delimitation was use of parent volunteers demonstrating parent interest in enhancing the quality of interaction with his/her child. This interest may not be representative of all parents of handicapped children.

## Chapter IV

### RESULTS

#### Interrater Reliability

The author recognized that her knowledge of group assignment and tape order could potentially bias her videotape ratings. Consequently a second rater who was blind to group membership and order of taping rated all the taped segments. The author and co-rater were trained to use the Teaching Skills Inventory using videotapes previously rated for an earlier study in which the Teaching Skills Inventory was used. On these training tapes the interrater reliability was 92.5%. Interrater reliability was calculated in the same manner as used by Rosenberg and Robinson (1983).

Interrater reliability for scale items was computed as a percentage of agreement between two independent raters on each 7-point scale. In converting a 7-point scale to percentages, the author divided 100 by 7. Each point of discrepancy in the 7-point rating was converted numerically to 14. For example, if one rater scored an item as 6 and the other rater scored an item as 5, a point difference of 1, the agreement would be 86%. If one rater scored an item as 6 and the other rater scored an item of 4, a point difference of 2, the agreement would be 72%. If the point difference was 3, the agreement would be 53%. On the tapes in this study the average interrater reliability was 90.3%. The item by item interrater reliability is presented in Table IV.

Table IV  
Interrater Reliability on Teaching Skills Inventory

<u>Item Title</u>	<u>Avg. Percent Agreement</u>	<u>Range of Percent Agreement</u>
1. Structure	94.2	86-100
2. Tracking	89.4	72-100
3. Clarity of Objectives	89.6	77-100
4. Develop Appropriateness of Activities	88.8	72-100
5. Appropriateness of Verbal Instruction	92.2	82-100
6. Appropriateness of Non-Verbal Instruction	89.8	82-100
7. Adjustment of Activity Complexity	90.4	82-100
8. Appropriateness of Feedback	88.8	82-100
9. Child Participation in Interaction	90.0	82-100
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Total Average Percent Agreement	90.8	72-100

#### Presentation of Data

Parents were randomly assigned to the Initial Training Group versus Delayed Treatment Group conditions. Tapes were rated after all tapings had been completed. Inspection of the mean scores of the ITG and DTG revealed that the two groups were equal in terms of parent teaching skill levels. Thus, hypothesis one, the pretest ability of the Initial Training Group and the Delayed Treatment Group will not significantly different ( $p < .05$ ) on the

Teaching Skills Inventory. The null hypothesis was not rejected. The mean scores for each group at each taping are presented in Table V. Individual dyad characteristics and parent performance scores for each videotaping are presented in Table VI.

TABLE V  
Mean Scores for each Group  
for each Videotaping

<u>Group</u>	<u>Mean Score</u>		
	1st	2nd	3rd
Initial Training Group	33.22	33.77	34.77
Delayed Treatment Group	33.66	27.33	31.16

Table VI  
Dyad Characteristics and  
Individual Parent Scores for each Videotaping

Dyads	Medical Diagnosis	Chronological Age of Child Year-Month	Assigned Level of Severity	Time in OPS Program	Parent Age	Parent Education Level	Mean Score of Videotapes		
							1	2	3
Group I									
1	Spina Bifida Hydrocephalus	1-4	Moderate to Severe	12 mo.	24	7th grade	35	34	40
2	Autistic-like	2-1	Severe	New/5 mo.	27	12th grade	34	22	31
3	Prenature- Brain Damage	1-5	Moderate	New/5 mo.	28	2 yrs of College	37	36	32
4	Cerebral Palsy	2-10	Severe	18 mo.	19	12th grade	19	36	31
5	Klippel Tren- nauerey Weber Syndrome	1-7	Severe/ Profound	16 mo.	24	12th grade	37	33	36
6	Cerebral Hemorrhage	1-10	Moderate	New/1 wk.	25	BS- Education	32	36	39
7	Development- ally delayed	2-11	Mild	24 mo.	29	Special Ed. Graduate	26	31	26
8	Cerebral Palsy	2-0	Mild/ Moderate	4 mo.	35	MS-Guidance & Counseling	41	42	40
9	Down's Syndrome	-6	Mild/ Moderate	New/3 mo.	35	BS- Education	38	34	38



Dyads	Medical Diagnosis	Chronological Age of Child Year-Month	Assigned Level of Severity	Time in OPS Program	Parent Age	Parent Education Level	Mean Score of Videotapes		
							1	2	3
<hr/>									
Group II									
10	Development- ally delayed	2-3	Moderate	12 mo.	23	High School dropout	28	23	32
11	Speech/Lang- uage delay	3-0	Mild	12 mo.	24	11th grade Special Ed.	28	16	26
12	Chromosome Abnormality	3-3	Moderate/ Severe	29 mo.	24	12th grade	36	20	29
13	Speech/Lang- uage delay	1-9	Mild	New/3 mo.	26	MS- Nutrition	42	37	38
14	Speech/Lang- uage delay	3-0	Mild	12 mo.	34	12th grade	36	28	25
15	Dandy Walker Syndrome/visu- ally impaired	2-3	Severe/ Profound	2 years	30	BS- Education	32	40	37

Consequently the author used statistical procedures which require group equivalence on a pretest measure. Analysis of variance using a repeated measure design was done to test hypothesis two and hypothesis three to determine the extent of change in parent skills across the three videotapings for each of the two groups. Hypothesis two stated that the posttest ability of the Initial Training Group will be significantly more positive ( $p < .05$ ) than the pretest ability of the Initial Training Group as measured on the Teaching Skills Inventory after intervention. The analysis of hypothesis two yielded no significant results. Hypothesis three stated that the posttraining ability of the Delayed Treatment Group will be significantly different than the pretest ability of the Delayed Treatment Group ( $p < .05$ ) as measured on the Teaching Skills Inventory following the intervention. The analysis of hypothesis three yielded no significant results. Summary tables of these ANOVA's for the Initial Training Group and Delayed Treatment Group are presented in tables VII and VIII respectively.  $F$  values of each of these analyses were nonsignificant. Thus neither group demonstrated statistically significant changes in their performance scores on the Teaching Skills Inventory.

Table VII

Summary Table: Analysis of Variance of the Performance  
of the Initial Training Group Across  
the 3 Videotapings

Source of Variation	df	Sum of Squares	Mean Squares	F
Between Tapings	2	11.18	5.59	>0.16**
Within Groups	24	798.68	33.27	
$\bar{A}$ vs $\bar{B}$ **a				
$\bar{A}$ vs $\bar{C}$ **b				
$\bar{B}$ vs $\bar{C}$ **c				
TOTAL	26	809.86		

\*\*Nonsignificant.

a. ITG pretest vs. ITG posttest

b. ITG pretest vs. ITG post posttest

c. ITG posttest vs. ITG post posttest

Table VIII  
Summary Table: Analysis of Variance of the Performance  
of the Delayed Treatment Group Across  
the 3 Videotapings

Source of Variation	df	Sum of Squares	Mean Squares	<u>F</u>
Between Tapings	2	122.10	61.05	>1.21*
Within Groups	15	753.52	50.23	
$\bar{D}$ vs $\bar{E}$ *d				
$\bar{D}$ vs $\bar{F}$ *e				
$\bar{E}$ vs $\bar{F}$ *f				
Total	17	875.62		

\*nonsignificant

d. DTG pretest vs. DTG pretest

e. DTG pretest vs. DTG posttest

f. DTG pretest vs. DTG posttest

A third analysis of variance was done comparing post training scores of the Initial Training Group (videotape 2) to the pretraining scores of the Delayed Treatment Group (videotape 2). Hypothesis four stated that the posttest ability of the Initial Training Group and the pretest ability of the Delayed Treatment Group will be significantly different ( $p < .05$ ) on the Teaching Skills Inventory. The summary statement of findings is presented in Table IX.

Table IX  
Comparison of ITG Posttest to DTG Pretest  
To Determine Training Effect

Source of Variation	df	Sum of Squares	Mean Squares	F
Between Tapings	1	149.50	149.50	> 2.83*
Within Groups	13	684.90	52.68	
Total	14	834.40		

\*No significance

Hypothesis five stated that the posttest ability of the Initial Training Group and the posttest ability of the Delayed Treatment Group would not be significantly different ( $p < .05$ ) on the Teaching Skills Inventory following intervention with both groups. Hypothesis five was not tested as there were no

significant training effects.

Post hoc inspection of individual parent data raised questions regarding the potential differential training effects in relationship to individual subject characteristics such as assigned level of severity of handicap of the children and parent education level. Prior to making a comparison, the author inspected the data for individual parent patterns of performance. This was accomplished on the ITG by computing the difference between the baseline performance scores and post training performance scores compared to the ITG's difference between the post training performance scores and the post post training (follow up) performance scores. To determine parent patterns of consistency on the DTG, the difference between the baseline performance scores and the second baseline performance scores were computed and compared to the difference of the second baseline performance scores and the post training performance scores. To do this the author set a criterion of consistency in direction of change across the 3 data points on individual subjects. When evaluated in this manner it was found that only 3 out of 15 parents demonstrated a consistent pattern, 2 parents consistently decreased in their performance scores across the 2 points and 1 parent consistently increased her performance scores. The differences of the parents' performance scores in ITG and DTG are presented in Table X.

Table X

Parent Patterns of Consistency Across 3 Videotapings in the  
Initial Training Group and the Delayed Treatment Group

Dyads	Difference between Videotape 1 and Videotape 2	Difference between Videotape 2 and Videotape 3	Consistent/ Inconsistent Pattern
Initial Training Group			
1	-1	+6	I*
2	-12	+9	I
3	-1	-4	C**
4	+17	-5	I
5	-4	+3	I
6	+4	+3	C***
7	+5	-5	I
8	+1	-2	I
9	-4	+4	I
Delayed Training Group			
10	-5	+9	I
11	-12	+10	I
12	-16	+9	I
13	-5	+1	I
14	-8	-3	C**
15	+8	-3	I

\*Indicates a pattern which shows no consistent positive or negative trend.

\*\*Indicates a consistent pattern of decreased performance scores on the Teaching Skills Inventory.

\*\*\*Indicates a consistent pattern of increased performance scores on the Teaching Skills Inventory.

Based on the lack of consistent patterns of change in parent performance scores from both the Initial Training Group and the Delayed Treatment Group, it was concluded that this data did not warrant further examination of parent characteristics.



## CHAPTER V

### DISCUSSION

#### Summary

The primary purpose of this study was to determine if a group method of instruction had an effect on the performance of the parents' skills as measured by the Teaching Skills Inventory. A test-teach-test assessment paradigm was used and videotapings were obtained at each of the three points to determine if change occurred in parent skills as a function of the competency based training. The third videotaping in the Initial Training Group enabled an examination of maintenance of skills on the Initial Training Group. The two groups were equivalent on performance in the initial baseline videotape. No significant training effects were found in this study, either for the individual groups or for the Initial Training Group/Delayed Treatment Group comparisons.

#### Conclusions and Recommendations

Rosenberg and Robinson (1983) concluded: "Regardless of the handicap of a child or the length of time that the parents had been in the program, intervention geared for the first time to the skills rated with the TSI produced distinct improvements in parent skills as measured by the TSI." In fact, "parents who had been receiving standard training prior to and during the baseline period did not develop skills evaluated by the Teaching Skills Inventory until the training phase of the study [parents who had

previous training] developed those skills at the same rate as the parents who were new to the program" (Rosenberg and Robinson, 1983). Based on these findings, parents were randomly assigned to the two groups in this study. The major issue in consideration of group assignment was that parent scores on the initial Teaching Skills Inventory were comparable. This was accomplished as illustrated in Table V.

The Initial Training Group and the Delayed Treatment Group were statistically comparable at the beginning of the training. However, the training had different effects, although not significant, on each of the groups. The Initial Training Group made minimal increases in their mean score on the TSI over the next two tapings. This pattern of performance is consistent with that reported by Rosenberg and Robinson (1983) in their report of effects of individualized training. The Delayed Treatment Group scored highest in the pretest, dropped markedly on the second videotape and increased on the posttest videotaping after the training but did not equal their original score. There may have been two possible explanations for the differences in the effect of the training on the Initial Training Group and the Delayed Treatment Group, parent education levels and parent attendance at the training sessions.

Parent education appeared important in that parents with more education tended to have higher scores than less educated

parents. Because the more educated parents had higher scores on the TSI initially there was less room for improvement on their part. Three out of four parents who were either high school dropouts or graduates of special education tended to have lower scores on the pretest of the TSI. These scores indicated a greater potential for improvement on the second videotapings. The parents who were high school graduates tended to maintain the same scores or decreased their performance scores throughout the testing situations. Parenting skill abilities need to be evaluated and group intervention dealing with parents should be based on stratification of parents based on their skill levels.

Another issue that may have precluded growth on the TSI was attendance. This was particularly true for the Delayed Treatment Group. Out of a possible attendance of 24 sessions (6 parents for 4 sessions) 16 or a 66% attendance rate was established by the DTG. In the ITG there was a possible attendance of 36 sessions (9 parents for 4 sessions) 32 sessions were attended. Because there were only four training sessions it was critical that parents attend all sessions to accurately measure the effect of the intervention. The lack of attendance affected the quality of parent discussion in the training as well. Issues such as parent educational level and attendance may have affected the growth or precluded growth on the parents' overall performance

scores on the TSI.

Rosenberg and Robinson (1983) suggested improvement in parent skills were associated with increases in children's interest and involvement in interaction with their parents. However this improvement did not occur simultaneously with the change in parental skills but rather lagged behind the parent changes. This change in parent skills to reach a criterion rating of 6 on all items resulted in training of up to 43 sessions in one case. The competency based parent training in this study had a duration of 4 weeks. The suggestion of child changes lagging behind parent changes in interaction may not have been assessed within this 4 week period. In essence, it may have been unreasonable to assume that interactional patterns that took 6-36 months to establish (depending on the age of the child) could have been positively and significantly modified in 4 weeks time. In this study, with limited training time, the trend was no significant changes in parent performance.

The group method of instruction may have precluded growth in parent performance scores as well. Rosenberg and Robinson (1983) documented change in parent skills based on an individualized parent training intervention strategy as measured by the TSI. Virtually no evidence of success of group training to enhance parent/child interaction as measured by a reliable and valid

assessment measurement exists. This study was an effort to establish that evidence but was precluded due to lack of significant results. Because the children in this study originated from such diverse disabilities, especially the DTG, (Table VI), it may have affected the efficacy of the training sessions. The range of handicapping conditions ranged from mild to severe/profound. In a situation of trying to elicit responses from a profoundly retarded child who is virtually unresponsive, in a group training class with some children functioning with a mild disability, it can be discomforting for the parent of the profoundly retarded child. This discomfort could cause resentment or attitudes which may preclude potential growth as a result of the training sessions. In an individualized training session this situation is less likely to occur. In a group training session efforts should be made at stratifying groups by the child's severity of handicapping condition as well as parenting skills to be most likely to experience change or growth as a result of the intervention.

In summary, the overall lack of significant results in this study does not forfeit potential benefits from the group method of instruction. Issues such as duration of training intervention, method of training, attendance at training sessions, educational level of parents, and degree of child's

handicapping condition, are critical variables to examine when determining an intervention strategy designed to enhance parent/child interaction. Nonetheless, efforts of parent training in regard to interaction with a handicapped infant are efforts at creating optimal child development.

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## APPENDIX A

# Dyad Characteristics of the Attrition Group

Dyads	Medical Diagnosis	Chronological Age of Child Year-Month	Assigned Level of Severity	Time in OPS Program	Parent Education Level	Parent Age
Attrition Group						
16	Down's Syndrome	1-0	Mild/ Moderate	New/6 mo.	7th grade	59
17	Speech/Lang- uage delay	3-2	Mild	New/5 mo.	12th grade	32
18	Down's Syndrome	3-0	Moderate	New/6 mo.	12th grade	32
19	Cerebral Palsy	2-4	Severe	12 mo.	12th grade	34
20	Down's Syndrome	2-0	Moderate	24 mo.	12th grade	31
21	Chronosome Abnormality/ Micro- cephalic	2-2	Severe/ Profound	10 mo.	12th grade	19

## APPENDIX B

## LETTER OF INVITATION

A parent is a child's first and most natural teacher. Parent/child interaction has tremendous impact on families as well as the parent and child individually. A four week course for parents who want to work on developing more effective interaction with their handicapped infants and preschoolers will be presented at Meyer Children's Rehabilitation Institute.

There will be no charge for the course since it is being conducted as part of a research project for a Master's thesis in accordance with the University of Nebraska at Omaha. Parents will be videotaped while playing with their children on three separate occasions, as well as attend four one hour sessions about parent/child interaction. All videotapes and information provided by parents will be kept confidential. Upon completion of the three videotapes and four one-hour sessions, each participating family will be paid twenty-five dollars.

Participation in this course will be limited. Please reply no later than Friday, November 18.

For further information call Jeanette Lengemann at 978-7079.

JL:mr

COMPETENCY BASED PARENT TRAINING USING A GROUP METHOD  
CONSENT FORM

We invite you to participate in a research study of the effects of instruction to parents in techniques for interaction with their young handicapped children. In this study you may learn new ways of working with your child.

If you decide to participate the first step will involve videotaping you and your child working together. This videotaping will take place at Meyer Children's Rehabilitation Institute and will require about 20 minutes of your time. Four weeks later you and your child will be videotaped again. Then for the next four weeks you will attend classes on how to interact with your handicapped child. Each class will be two hours long. At the end of these classes you will again be videotaped. After a month you will be videotaped one last time. You will receive a payment of \$25.00 upon completion of this final videotaping.

During the weeks in which you are videotaped your Home Teacher will be asked to complete a brief questionnaire regarding your home visits and your interaction with your child. The purpose of this questionnaire is to give us a measure other than the videotapes of the effect of this training.

We know of no risk to you or your child associated with this research. No information that could identify you or your child will be provided to anyone without your written permission.

Participation in this study is voluntary. Your decision whether or not to participate will not affect you or your child's relationship with your child's program through Omaha Public Schools or the University of Nebraska Medical Center or any future services your child may receive through these agencies. If you decide to participate you are free to withdraw your consent and discontinue participation any time.

If you have any questions please ask us. If you have any additional questions later, Dr. Robinson or Ms. Lengemann will be happy to answer them. You can reach them respectively at 559-7451 and 978-7079 during the day and at (Dr. Robinson) 453-9763 or (Ms. Lengemann) 733-0797 in the evenings or on weekends.



-2-

You will be given a copy of this form to keep.

YOU ARE MAKING A DECISION WHETHER OR NOT TO PARTICIPATE. YOUR SIGNATURE INDICATES THAT YOU HAVE DECIDED TO PARTICIPATE HAVING READ THE INFORMATION ABOVE.

---

SIGNATURE OF PARENT

---

DATE

---

SIGNATURE OF INVESTIGATOR

---

DATE

d.d./B  
12/15/83

## INFORMATION SHEET

Child's name \_\_\_\_\_

Child's date of birth \_\_\_\_\_

Current Address \_\_\_\_\_

Phone Number \_\_\_\_\_

Handicapping Condition \_\_\_\_\_

Nature of disorder (from birth, unknown origin)  
\_\_\_\_\_  
\_\_\_\_\_List programs involved in (PT, OT, Speech, Let's Play to Grow,  
etc.)

Age of child when started receiving the above listed services.

How long have you been in OPS home-based services?

Mother's name \_\_\_\_\_

Mother's occupation \_\_\_\_\_

Mother's level of education \_\_\_\_\_

Mother's age \_\_\_\_\_

Father's name \_\_\_\_\_

Father's occupation \_\_\_\_\_

Father's level of education \_\_\_\_\_

Father's age \_\_\_\_\_

Number and ages of child's brothers and sisters:

brothers	_____	ages	_____
sisters	_____	ages	_____

## APPENDIX C

Revision #3: March 1981

Rating System: Teaching Skills Inventory

I. Structure

1. Adult Initiated vs. Child Initiated Activities

1. Almost all activities were initiated by the adult
2. Most of the activities were initiated by the adult
3. Less than half of the activities were initiated by the child
4. An equal number of activities were initiated by the adult and child
5. More than half of the activities were initiated by the child
6. Most of the activities were initiated by the child
7. Almost all of the activities were initiated by the child

II. Tracking

1. Adult Sensitivity to Child

1. The adult is almost never sensitive to the child's interests and moods
2. The adult is inappropriately sensitive most of the time
3. The adult is appropriately sensitive less than half of the time
4. The adult is appropriately sensitive half of the time

5. The adult is appropriately sensitive more than half of the time
6. The adult is appropriately sensitive most of the time
7. The adult is appropriately sensitive almost all of the time

### III. Instructional Skills

#### 1. Clarity of Activity Objectives to the Rater

1. The objectives were almost never clear
2. Most of the objectives were unclear
3. Less than half of the objectives were clear
4. Half of the objectives were clear
5. More than half of the objectives were clear
6. Most of the objectives were clear
7. Almost all of the objectives were clear

#### 2. Developmental Appropriateness of the Activities

1. Almost all of the activities were developmentally inappropriate
2. Most of the activities were developmentally inappropriate
3. Less than half of the activities were developmentally appropriate
4. Half of the activities were developmentally appropriate

5. More than half of the activities were developmentally appropriate
6. Most of the activities were developmentally appropriate
7. Almost all of the activities were developmentally appropriate

3. Appropriateness of Verbal Instruction

1. Almost all of the verbal instruction was inappropriate
2. Most of the verbal instruction was inappropriate
3. Less than half of the verbal instruction was appropriate
4. Half of the verbal instruction was appropriate
5. More than half of the verbal instruction was appropriate
6. Most of the verbal instruction was appropriate
7. Almost all of the verbal instruction was appropriate

4. Appropriateness of Non-Verbal Instruction

1. Almost all of the non-verbal instruction was inappropriate
2. Most of the non-verbal instruction was inappropriate
3. Less than half of the non-verbal instruction was appropriate
4. Half of the non-verbal instruction was appropriate

5. More than half of the non-verbal instruction was appropriate
6. Most of the non-verbal instruction was appropriate
7. Almost all of the non-verbal instruction was appropriate

5. Adjustment of the Complexity of the Activities

1. The adult almost never adjusts activity requirements in the direction consistent with the child's responses/or the adult misses significant opportunities to appropriately modify or convert a given activity.
2. The adult uses inappropriate modification/conversion strategies most of the time
3. The adult uses appropriate modification/conversion strategies less than half of the time
4. The adult uses appropriate modification/conversion strategies half of the time
5. The adult uses appropriate modification/conversion strategies more than half of the time
6. The adult uses appropriate modification/conversion strategies most of the time
7. The adult uses appropriate modification/conversion strategies almost all of the time

#### IV. Feedback

1. Description: Check one

Mostly Verbal

Mostly Non-Verbal

Both

2. Count of Positive Feedback
3. Count of Verbal Corrective Feedback
4. Appropriateness of Feedback

Consider frequency and quality.

1. Almost all feedback was inappropriate
2. Most of the feedback was inappropriate
3. Less than half of the feedback was appropriate
4. Half of the feedback was appropriate
5. More than half of the feedback was appropriate
6. Most of the feedback was appropriate
7. Almost all of the feedback was appropriate

#### V. Child Responses

1. Count of Activities
2. Frequency of Criterion Responses
3. Child Participation in the Interaction

1. The child almost never participates in any activity.  
He/She continually plays independently of the adult,  
cries, fusses, etc.
2. The child participates in a few of the activities



3. The child participates in less than half of the activities
4. The child participates in half of the activities
5. The child participates in more than half of the activities
6. The child participates in most of the activities
7. The child participates in almost all of the activities

## VT Rating Form: Teaching Skills Inventory

Dyad \_\_\_\_\_

Primary Rater \_\_\_\_\_

Date of Tape \_\_\_\_\_

Reliability Rater \_\_\_\_\_

Date of Rating \_\_\_\_\_

	Poor	Ave.	Excel.
Audio	1	2	3
Tape Quality	1	2	3
Video	1	2	3
	4	5	

Primary Rating	Reliability Rating	Diff.
----------------	--------------------	-------

I. Structure

1. Adult Initiated vs.  
Child Initiated Activities

_____	_____	_____
-------	-------	-------

II. Tracking

1. Adult Sensitivity to child

_____	_____	_____
-------	-------	-------

III. Instructional Skills

1. Clarity of Activity Objectives

_____	_____	_____
-------	-------	-------

2. Dev. Appropriateness of the  
Instruction

_____	_____	_____
-------	-------	-------

3. Appropriateness of Verbal  
Instruction

_____	_____	_____
-------	-------	-------

4. Appropriateness of Non-Verbal  
Instruction

_____	_____	_____
-------	-------	-------

5. Adjustment of Activity  
Complexity

_____	_____	_____
-------	-------	-------

IV. Feedback

1. Type: Check One

Mostly Verbal \_\_\_\_\_

Mostly Non-Verbal \_\_\_\_\_

Both \_\_\_\_\_

VT Rating Form: Teaching Skills Inventory  
Page 2

	Primary Rating	Reliability Rating	Diff.
2. Frequency of + Feedback	_____	_____	_____
3. Frequency of Verbal Corrective Feedback	_____	_____	_____
4. Appropriateness of Feedback	_____	_____	_____
V. <u>Child Responses</u>			
1. Number of Activities	_____	_____	_____
2. Number of Criterion Responses	_____	_____	_____
3. Child Participation in the Interaction	_____	_____	_____

## APPENDIX D

## COMPETENCY BASED PARENT TRAINING

## Class #1 Reading and Responding to a Child's Behavioral Cues.

- I. Parents completed information questionnaire about current socio-economic status and census related information.
- II. Parents were provided with an explanation of the study including involvement with their child for three video-tapes at 4 week intervals and attending the other three training sessions. Questions concerning details of scheduling, payment of \$25.00 for participation and other parent concerns were addressed.
- III. Informed consent forms were passed out and signed by participating parents.
- IV. Discussion on appropriately reading the child's behavioral cues initiated the training.
  - A. Obvious cues such as smiling, vocalizing, touching, grasping, crying, withdrawal, frustration were discussed.
  - B. Subtle cues such as head turns, blinking, dull expression, general expressions of lack of interest, etc. are determininating factors of reciprocity in interaction.

- C. A child's behavioral cues should give parents an idea of an appropriate response to enhance interaction.
  - 1. If parent wants to persist in the given activity, approach interaction in a new way.
  - 2. Change activity, direct child to new task.
  - 3. Alter current interaction, model appropriate behavior in a manner comfortable to parent.
- V. What signals do children give if disinterested in activity versus what signals do children give if interested in an activity was discussed in an effort to reinforce reading a child's behavioral cues appropriately.
- VI. Parent/child interaction videotape was viewed to determine how parent appropriately or inappropriately reads the child's behavioral cues.
- VII Issue of parent directiveness vs. child self selection of activities is important.
  - A.. Parent directiveness topics of discussion:
    - 1. Do parents always need to be goal oriented in a play situation?
    - 2. How do parents select toys for child?
    - 3. What games do parents enjoy playing with their child?
  - B. Child self selection of activity in interaction topics of discussion:
    - 1. Is interest and attention span for self selected

activities longer than when not self selected?

2. What types of toys does your child choose to play with?

C. Parents were given a homework assignment to play with their child in a highly parent directed activity and a child self selected activity and asked to make note of child's reaction to the two different types of play periods.

#### Class #2 Establishing An Appropriate Play Time

I. Parents discussed the previous homework assignment. The general conclusion was that there was less friction and more mutual satisfaction when child chose his own activities to interact with.

- A. Self selection of toy/activity can be enhanced by allowing child to make choices in a given play time.
- B. Offer choices of toy/activity that child needs most work on.
- C. Use increasingly more complex toys to encourage a challenge and potential growth in child's cognitive functioning ability.

II. Experiment with toys; present a variety of uses to encourage creativity.

- A. Use a cup as a hat--incorporate language by labeling

functional uses of the object.

- B. Flexibility in toy presentations can be rewarding to the child.

### III. Adjust to child's level during interaction.

- A. Be careful of sensory overload; choose one or two toys-- extend attention span by playing with them for longer periods of time.
- B. Imitate positive social interactions in a "game" fashion to develop child's capabilities of anticipating the parent's responses to his/her behavior.

- ### IV. Parents viewed three 5-10 minute segments of videotapes showing three different mother/child dyads interacting during a play situation. The children had varying degrees of handicapping conditions. Parents were encouraged to find examples of the points made in class within the three videotapes. Positive as well as negative behaviors (in terms of encouraging or discouraging reciprocity in interaction) were emphasized. These behaviors included offering choices to encourage the child to self select the activity, using toys in flexible ways and appropriately reading and responding to the child's behavioral cues.

### Class #3 Nonverbal and Verbal Communication

- I. Parents viewed a movie entitled "Benjamin" which explains a



child's development of communication. Major points emphasized in the movie and discussed in class were:

- A. Babies are competent beings who can recognize their mother at two weeks of age, communicate needs with various cries and vocalizations, and show patterns in movements of extremities.
  - B. Babies react to speech sounds.
    - 1. Babies are unconsciously involved in a rhythmic dance in synchronization with speech sounds.
    - 2. A baby will establish facial gaze to determine how to reproduce a sound made at him or her.
  - C. Babies are innately social.
    - 1. Babies react to people not objects.
    - 2. Babies are involved in "conversations" or turn taking behavior at an early age.
    - 3. Turn taking behaviors are elicited in the form of gestures, vocalizations, facial expressions, and mouth movements.
  - D. Babies sense when they are talked at and not talked with.
  - E. When a mother is interrupted while talking with a baby, the baby attempts to converse with the intruder.
- II. Parents viewed a videotape entitled "Coos to Comments" which served as further explanation in the development of conversations. Major points emphasized in the videotape and discussed in class which corresponded to child's age and

development included:

- A. Babies exhibit turn taking behavior as a prerequisite to conversation.
- B. Babies experiment in pitch - using vowel sounds in early vocalizations.
- C. Establishment of eye-to-eye contact eventually leads to reciprocity in interaction.
- D. Word approximations, when appropriately modeled can become true words, eg./ba/=ball.
- E. Parents need to label objects that the child exhibits interest in to maintain and increase that interest.
- F. A child's talking behaviors cause a parent to pause which results in reciprocal interaction.
- G. Parents automatically or innately adjust to a child's level of communication.

III. A brief discussion of Piaget's Sensorimotor and Preoperational Stages of Development enhanced parents' understanding of normal child development. Deviations in normal development such as those exhibited by a handicapped child were discussed. Piaget's Sensorimotor Stages include:

- A. Sensorimotor Stage (birth to two years) is composed of six levels:
  - 1. Reflex activity (birth to one month) refers to a

child in the process of refining his/her innate responses.

2. Primary Circular Reactions (1 to 4 months) refers experiences the child has to repeat and refine actions which once occurred by chance.
3. Secondary Circular Reactions (4 to 10 months) refers to when a child manipulates objects, repeats actions by choice, and develops object permanence.
4. Coordination of secondary schemata (10 to 12 months) refers to when a child combines previous activities for new results and begins imitation of actions and words.
5. Tertiary circular reactions (12 to 18 months) refers to instances when the child experiments with objects to discover new uses and locates an object with his/her eyes and tracks it.
6. Invention through mental combination (18 to 24 months) refers to the child practicing deferred imitation and applying old skills to new situations.

B. Preoperational Stage (2 to 7 years) Characteristics  
common to this stage are:

1. Language appears
2. Imaginative play, deferred imitation and egocentrism is prevalent.
3. Child can complete simple operations but cannot explain why.
4. Child uses sensory and concrete organization rather than reasoned or operational organization.
5. Child begins to understand past, present and future.

The training sessions were individualized according to the groups' needs. Parents in the Initial Training Group were

exposed to the sensorimotor stage information, and parents in the Delayed Training Group were exposed to the preoperational stage of development information to better meet the needs of the parents in interacting with his/her child in their respective stages of development.

Class #4 A New Definition of LOVE.

- I. Parents were given an acronym, LOVE, which stood for major points stressed throughout the competency based training. This acronym provided organization for the summary session.
  - A. L - Lots of behavioral cues, read them appropriately.
  - B. O - Offer choices of toys/activities.
  - C. V - Variety and flexibility of toys is important.
  - D. E - Expect a response, allow enough time for your child to respond to your interaction.
- II. Parents watched two videotapes of parent/child interaction in which they were encouraged to discuss the acronym in relation to given activities of the videotape segments.
- III. Appointments to videotape parent/child interaction were made.