
Deirdre West Russell
Louisiana State University and Agricultural & Mechanical College

Follow this and additional works at: https://digitalcommons.lsu.edu/gradschool_disstheses

Recommended Citation
https://digitalcommons.lsu.edu/gradschool_disstheses/6404
INFORMATION TO USERS

This manuscript has been reproduced from the microfilm master. UMI films the text directly from the original or copy submitted. Thus, some thesis and dissertation copies are in typewriter face, while others may be from any type of computer printer.

The quality of this reproduction is dependent upon the quality of the copy submitted. Broken or indistinct print, colored or poor quality illustrations and photographs, print bleedthrough, substandard margins, and improper alignment can adversely affect reproduction.

In the unlikely event that the author did not send UMI a complete manuscript and there are missing pages, these will be noted. Also, if unauthorized copyright material had to be removed, a note will indicate the deletion.

Oversize materials (e.g., maps, drawings, charts) are reproduced by sectioning the original, beginning at the upper left-hand corner and continuing from left to right in equal sections with small overlaps. Each original is also photographed in one exposure and is included in reduced form at the back of the book.

Photographs included in the original manuscript have been reproduced xerographically in this copy. Higher quality 6” x 9” black and white photographic prints are available for any photographs or illustrations appearing in this copy for an additional charge. Contact UMI directly to order.

UMI
A Bell & Howell Information Company
300 North Zeeb Road, Ann Arbor MI 48106-1346 USA
313/761-4700 800/521-0600

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.
FATHERS AS INTERVENTION AGENTS:
PARENT TRAINING WITH FATHERS OF
CHILDREN WITH DEVELOPMENTAL DISABILITIES

A Dissertation

Submitted to the Graduate Faculty of the
Louisiana State University and
Agricultural and Mechanical College
in partial fulfillment of the
requirements for the degree of
Doctor of Philosophy

in

The Department of Psychology

by
Deirdre West Russell
B.S., Spring Hill College, 1990
M.A., Louisiana State University, 1993
May 1997
ACKNOWLEDGMENTS

I would like to thank Dr. Johnny Matson for his guidance, encouragement, and direction throughout this project. I would also like to thank my committee members, Drs. Mary Lou Kelley, William Waters, Robert Coon, as well as Dr. Timothy Vollmer, for their help and participation. A special thanks to the four families who participated, as well as Susan, Jessica, Karen, Chris, Allison, and Debbie for their involvement as raters. I would also like to thank Alyson McCain, Debbie Farrar-Schneider, David Coe, and Kelley Francis for their insightful comments, support, and continued encouragement. My family deserves a special thanks for their faith and support. I would especially like to thank my husband for his understanding, love, and patience during my graduate career.
# TABLE OF CONTENTS

Acknowledgments ......................................................... ii
List of Tables ..................................................................... iv
List of Figures ..................................................................... v
Abstract ........................................................................ vi
Introduction ...................................................................... i
Review of Literature ......................................................... 5
   Parent Training Approaches ......................................... 5
   Critical Reviews and Clinical Implications ...................... 23
   Research on Fathers and Father Involvement .................. 25
   Summary and Purpose .................................................. 37
General Method ....................................................................... 40
   Subject Recruitment and Subjects .................................. 40
   Setting and Data Collection ......................................... 41
   Recording and Reliability .............................................. 43
   Behavioral Definitions ................................................ 44
   Measures ...................................................................... 46
   Experimental Design and Procedures ............................ 47
   Subject 1 Information .................................................. 48
   Subject 2 Information .................................................. 52
   Subject 3 Information .................................................. 56
   Subject 4 Information .................................................. 59
Results .............................................................................. 62
Discussion .......................................................................... 72
References .......................................................................... 83
Appendix A: Parent Recruitment Letter ............................... 91
Appendix B: Consent Form ................................................. 92
Appendix C: Observation Manual ........................................ 95
Appendix D: Parent’s Consumer Satisfaction Questionnaire .... 100
Appendix E: Demographic Questionnaire ............................ 106
Appendix F: Handouts ...................................................... 108
Vita ................................................................................. 123

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.
LIST OF TABLES

1. Interobserver Agreement: Mean Percent Agreement by Behavior ................................... 44
2. Demographic Characteristics of Participants ................................................................. 49
3. Scores on the Parenting Stress Index (PSI)-Short Form ......................................................... 71
LIST OF FIGURES

1. Chris ................................................................. 63
2. Jimmy ................................................................. 64
3. Travis ................................................................. 65
4. Edward ................................................................. 66
5. Child Compliance to Father’s Commands (Chris & Jimmy) .......................... 68
6. Child Compliance to Father’s Commands (Travis & Edward) ......................... 69
ABSTRACT

Previous research on parent training with children who have developmental disabilities has typically failed to include fathers. Compared to research on mothers of children with disabilities and fathers of normally developing children, little is known about fathers of children who have disabilities. In the present study, effects of behavioral parent training on fathers' parenting behaviors (instruction giving, positive attention, and correct consequences) were evaluated. The experimenter trained four fathers of children with developmental delays in the home using written handouts, verbal instructions, modeling, and performance feedback. Training was directed at increasing correct use of fathers' instruction giving, positive attention following child compliance, and consequences following child inappropriate behavior. Consequences included planned ignoring of minor inappropriate behavior and time-out for behaviors such as hitting, throwing toys, and running into the street. Four fathers and their sons participated. Results of a multiple baseline design across father behaviors demonstrated that with training, all four fathers increased their correct use of instruction giving and positive attention following child compliance, and 3 fathers increased their use of consequences following child inappropriate behavior. The first father was not trained in consequences due to the low to zero rate of child inappropriate behavior. In turn, child compliance made modest increases in 3 of the 4 participants. The results replicated earlier research with mothers of children with developmental disabilities and extends research by using fathers as the principal targets of study. Limitations of the study and potential benefits of father involvement are discussed.
INTRODUCTION

The utility of parents as intervention agents for children's behaviors has been widely supported (Berkowitz & Graziano, 1972; Gordon & Davidson, 1981; Helm & Kozloff, 1986; Johnson & Katz, 1973; Patterson, Chamberlain, & Reid, 1982). However, only recently has the parent training literature expanded to include families of children with disabilities (Patterson, Chamberlain, & Reid, 1982; Baker, 1989). Additionally, the vast majority of parent training research (on families both with and without children who have developmental disabilities) has neglected fathers (Meyer, 1986; Rodrigue, Morgan, & Geffken, 1992; Baker, 1989). Therefore, the effectiveness of mothers as intervention agents in parent training has been widely established, yet fathers as intervention agents have not been targeted for research (Van Hasselt, Sisson, & Aach, 1987; Cordisco, Strain, & Depew, 1988; Moran & Whitman, 1991). Information available on basic parent training, training with mothers of children with developmental disabilities, and research on father involvement with normally developing children and children with disabilities suggest the need for research specifically addressing the effectiveness of fathers as intervention agents.

Researchers have focused on parent training as a component of treatment for a variety of problems, including noncompliance (Dadds, Sanders, & James, 1987; Mash & Terdal, 1973), social aggression (Patterson, Chamberlain, & Reid, 1982), enuresis (Azrin, Sneed, & Foxx, 1974; Fincham & Spettell, 1984), bedtime fears (Giebenhain & O'Dell, 1984; Graziano & Mooney, 1982), hyperactivity (Barkley, 1987; Henry, 1987; Pollard, Ward, & Barkley, 1983), stuttering (Budd, Madison, Itzkowitz, George, & Price, 1986) and child abuse and neglect (Brunk, Henggeler, & Whelan, 1987). Many reasons exist for choosing parents as intervention agents over trained professionals. Cunningham (1985) has noted that utilizing parents can be an
economical method of intervention, especially since many children need help and few professionals specialize in this area. In addition, generalization, maintenance, and prevention are assumed to be more likely to occur with parent involvement because parents have frequent and consistent contact with the child in a range of settings (Cunningham, 1985). Finally, parents are thought to have greater opportunities to influence behavior than professionals because they control more powerful reinforcers for the child's behavior (Tharp & Wetzl, 1969).

Berkowitz and Graziano (1972) cited several reasons for targeting parents as interventionists in cases where a child's noncompliant behavior was shaped and reinforced through patterns of family interaction. First, they assert that most children's coercive behavior is learned and maintained in the home environment. Therefore, only minimal changes can occur by treating a child in other settings. In addition, if a child's behavior improves in the clinic, these improvements are not likely to be maintained once he/she returns to the original environment where the behavior was learned. Finally, parents have more direct and lasting contact with their own children than do professional personnel (Berkowitz & Graziano, 1972).

Different approaches to parent training exist. One successful approach, a behavioral perspective, has emphasized that the reinforcement and consequences provided by the parent affect the way a child behaves (Kaiser & Fox, 1986). Regardless of the original cause of the child's behavioral excesses or deficits, a behavioral perspective has focused on teaching the parents to change their current manner of responding to their child (Gordon & Davidson, 1981; O'Dell, 1974; Tharp & Wetzel, 1969). Behavioral parent training has consisted of training parents to change their behavior in order to effect change in their child. Parents learn to apply basic behavior modification procedures
(e.g., reinforcement, extinction or planned ignoring, time out, fading, and shaping) to increase desired behaviors and decrease inappropriate responses (Kaiser & Fox, 1986). In general, researchers have supported the efficacy of parent training approaches for changing parent and child behaviors (Berkowitz & Graziano, 1972; Gordon & Davidson, 1981; Helm & Kozloff, 1986; Johnson & Katz, 1973; Patterson, Chamberlain, & Reid, 1982).

Other models of parent training include insight-oriented and reflective models which have the common goals of increasing parental understanding of their own and their child's reactions, emotions and needs at various developmental stages; examining their attitudes; and focusing on feelings within the parent-child relationship (Cunningham, 1985). These types of groups have typically consisted of parents whose children do not have developmental delays. Researchers have reported few evaluation studies; thus, the effectiveness of these approaches remains questionable (Rinn & Markle, 1977).

The majority of parent training research has focused on families with intellectually normal children who present behavior problems (Patterson, Chamberlain, & Reid, 1982; Baker, 1989). More recently, the extensive research on parent training with oppositional and disruptive children has evolved to focus on children with mental retardation and other handicaps. The behavioral and learning problems frequently exhibited by developmentally delayed children appear to be amenable to interventions by parents (Kaiser & Fox, 1986). Due to the pervasive nature of developmental delays, parent training with families of developmentally disabled children has a somewhat different focus (Baker, 1989). Life skills training and language development become important goals of treatment (Baker, 1989; Handleman & Harris, 1986) rather than reducing noncompliance, hyperactivity, or enuresis (Azrin, Sneed, & Foxx, 1974; Barkley, 1987; Dadds, Sanders, & James, 1987).
For most parent training programs, 'parents' actually mean 'mothers' (Bristol & Gallagher, 1986). Compared to what is known about mothers of disabled children or fathers of nonhandicapped children, a paucity of research on fathers of children with cognitive delays exists (May, 1991; Meyer, 1986). Rodrigue, Morgan, and Geffken (1992) noted that researchers often neglect fathers of children with special needs. Even when fathers are included in parent training, data are often combined for both mother and father, or only presented for the 'primary parent', usually the mother (Baker, 1989). Bristol and Gallagher (1986) noted that so little is known about fathers of developmentally disabled children that information at all levels is needed.

In general, researchers have supported numerous benefits of father involvement for parents and children (Lamb, 1986; Lamb, Pleck, & Levine, 1985; Russell & Radin, 1983). Children in families with involved fathers are reportedly less likely to experience depression and imprisonment and more likely to complete their education and find gainful employment (Furstenberg & Harris, 1993). Mothers report greater marital satisfaction, less depression and psychological distress than mothers in more traditional families, and fathers report increased feelings of competence as a parent and greater marital satisfaction (Hoffman, 1983; Lamb, Pleck, & Levine, 1985; Russell & Radin, 1983).

The purpose of the present study is to address the dearth of information available on fathers involved in parent training and to evaluate fathers as intervention agents for their children with developmental disabilities. By focusing research on this much neglected area, the trend towards greater father involvement can be highlighted. The lack of information on fathers is particularly acute in families of children with cognitive delays. A review of the relevant literature on parent training and father involvement follows.
REVIEW OF LITERATURE

Parent Training Approaches

Considerable diversity exists within the training aims and approaches to parent training (Baker, 1988). Although training orientations differ, most research has utilized a behavioral approach (Tavormina, 1974). Formats for training have primarily been individual sessions, in which professionals counsel, instruct, and model while parents learn, teach, and receive feedback (Baker, 1989). Group training has been less common, probably due to the logistics of conducting group sessions. Most programs meet for six to twelve sessions (Cunningham, 1985). Training sites have included homes, clinics, schools, or even simulated homes (Baker, 1989; Cunningham, 1985).

Not all researchers agree that parent training presents an effective and reasonable treatment alternative (Rodger, 1986). Rodger (1986) suggested that professionals are expecting too much of parents who already may be physically and emotionally stressed by caring for their handicapped child. Rodger pointed out that added responsibility and new role expectations have not been widely investigated (Rodger, 1986). Professionals need to be more aware of the overall effects additional responsibility has on parents. Rodger asked whether professionals are being unrealistic in their demands of parents who are parents first and therapists second (Rodger, 1986). Likewise, in describing fathers of mentally handicapped children, McConachie (1982) noted that each family has differing needs, and emphasized the danger of assuming that all fathers should be involved. Because ‘parents can be teachers’, professionals run the risk of asserting that ‘parents must be teachers’. Services that insist on father involvement may inadvertently increase the burden on mothers who feel they are to blame for fathers not being involved. McConachie (1982) argued for a
flexible partnership between parents and professionals, taking into account the individualized needs and skills of each.

**Group Training Formats**

Although group training has been less common than individual training, the literature on parent training groups remains useful. A variety of group parent training formats have been utilized. A cognitive-behavioral approach has often been combined with additional components, such as stress management and community support services. Additional approaches include an educational approach, media-based approach, and language training focus. A brief review of these group formats follows.

**Cognitive-behavioral orientation.** One group format for parent training is a cognitive-behavioral approach which includes a stress reduction component. Researchers have long postulated that the challenge of raising a child with severe disabilities at home may create additional stress on the family. Singer, Irvin, Irvine, Hawkins, and Cooley (1989) evaluated a multi-element intervention for parents of school-aged children with severe disabilities. The rationale for the study came from the belief that the stress involved in raising a child with severe disabilities at home may interfere with a positive family climate (Schilling & Schinke, 1984; Singer & Irvin, 1989). The package of support services chosen for evaluation consisted of components individually tested in the authors' previous work (Singer, Irvin, & Hawkins, 1988; Singer, Irvine, & Irvin, 1989; Hawkins & Singer, 1989).

The study involved 49 parents from 32 families with children ages 3 to 14 with moderate and severe handicapping conditions (Singer, Irvin, Irvine, Hawkins, & Cooley. 1989). The authors randomly assigned parents to one of two conditions: Intensive or Less Intensive Support. A total of 28 individuals participated in the Intensive Support group: 9 couples, 7 single parents, and 3
married females whose spouses did not participate. A total of 21 individuals participated in the Less Intensive group: 8 couples, 4 single parents, and 1 married female whose spouse did not participate.

For 16 weeks the Less Intensive Support group received two kinds of services: case management and respite care. Parents in the Intensive Support group received the same two kinds of services. In addition, they received assistance from community volunteers and participated in a set of 16 classes on coping skills that met once weekly in the evening for 2 hours. The classes utilized a cognitive-behavioral approach that assumed coping skills can be modeled and learned through practice and reinforcement.

Mothers in the Intensive treatment group reported significantly greater reductions in depression and anxiety than the Less Intensive group, as measured on the Beck Depression Inventory (BDI; Beck et al., 1961) and the State-Trait Anxiety Inventory-Trait Scale (STAI; Spielberger et al., 1983). Their improvements in depression and anxiety maintained at a one-year follow-up. (Follow-up data were not collected for the Less Intensive group). Only 9 fathers participated in the Intensive treatment group and only 8 fathers in the Less Intensive group. With such a small sample size, the fathers' improvements in depression and anxiety remain difficult to interpret. However, based on a power analysis of the father data, Singer et al. (1989) suggested that the Intensive Treatment Package was an effective intervention for fathers and mothers. They also recommended replication of this study with larger numbers of fathers.

In summary, parents who received a combination of support services, including stress management and behavioral parent training, reported reduced levels of depression and anxiety (Singer et al., 1989). Strengths of the study include participation of fathers and the one-year follow-up. However, the addition of a placebo group in which professionals lead non-directive
discussions with parents would have improved the findings. Also, the small number of fathers, failure to obtain follow-up data for the Less Intensive group, and lack of clearly stated goals limit the study’s results.

Stress management approach. Stress has been correlated with increased risk for child abuse and neglect (Kinard, 1982). Schinke and colleagues investigated stress management skills as a preventive intervention for parents at risk for child abuse (Schinke, Schilling, Kirkman, Gilchrist, Barth, & Blythe, 1986). Subjects were 13 mothers and 10 fathers referred through child protection. Unfortunately, the authors presented limited information on the parents, and it is not clear if only one parent per family participated. In addition, data for mothers and fathers were not presented separately: mothers and fathers were combined as 'parent'. Half of the parents were assigned to a stress management intervention and half to a no-intervention control. Intervention consisted of 10 weekly, 2 hour stress management skills groups. The authors collected posttest data after intervention and 6 months after intervention. The authors gave little information on the types of tests used in assessment, but stated "parents completed psychometrically tested scales to report their attitudes toward their children" (Schinke et al., 1986, p. 295). Three variables were reported from the assessment measures: positive attitudes toward children, adaptive anger control ability, and positive coping response. In addition, two raters, blind to condition assignments and measurement occasions, coded videotaped interactions on the following five variables: disapproval, threat giving, indirectness, approval, and overall composition.

Compared with a no-intervention, test-only control condition, the intervention group reported more positive attitudes toward their children and more adaptive means of handling their anger at posttest. In addition, at posttest parents were observed to be less disapproving and less threatening. However, at
the 6 month follow-up no difference between no-intervention and intervention condition existed on these four variables (i.e., positive attitudes toward children, adaptive anger control ability, disapproval, and threat giving). Compared with a no-intervention at posttest and the 6 month follow-up, the intervention group showed differences on the remaining four variables. The intervention group showed more positive coping responses, were less indirect, more approving, and better composed during interactions (Schinke et al., 1986).

One limitation of the study was the lack of an attention-placebo control group. Because the authors compared a total intervention to no intervention, attention-placebo effects may have accounted for the observed improvements in the intervention group. Additional limitations included combining mother and father data and the lack of descriptive data on the parents and procedures used. Future research suggested by the authors included tailoring the stress management intervention to caregivers for handicapped children (Schinke et al., 1986).

Educational approach. The effects of developmental education in motivating parents to participate in home treatment programs for developmentally delayed infants was assessed by comparing three treatment conditions: developmental education for parents, parent education in child management, and a no-education control condition (Moxley-Hagegert & Serbin, 1983). Home program assignments and home visits were utilized. The authors assessed whether teaching parents to recognize small developmental progressions in their children with developmental delays would motivate them to participate more consistently and effectively in home treatment programs. The home treatment programs used were designed to enhance their child's development. The sample consisted of 39 caregiver-child pairs. All children were under 36 months of age. Although 'parent education' was specified, only
three of the 39 caregivers were fathers. The authors chose the caregiver as the person most likely to be involved in carrying out the home treatment program; fathers were not specifically encouraged to participate if they were not the primary caregiver.

Home program assignments were provided for all three treatments. The experimental group additionally received a brief course in developmental education from an educator who visited their home. The first control condition, parent education in child management, was designed to control for the effects of attention, study of materials, and social reinforcement received by the experimental group. The third condition, a no-education condition, received no visits or reading materials to supplement the home program. They did receive three phone calls to remind them to fill in the journal.

The developmental education group averaged significantly greater improvement than the other two groups, on motor score of the Bayley Scales of Infant Development, and occupational therapists' reports of parents participation in the home program. Parental education, focusing on observing and recognizing children's developmental gains, was effective in motivating parents to participate in the implementation of home programs for their children with developmental delays (Moxley-Hagegert & Serbin, 1983). In sum, Moxley-Hagegert and Serbin (1983) found that parental education was effective. However, fathers were not encouraged to participate unless they were the primary caregiver. Therefore, the effects of this type of program on fathers was unanswered. The question of the effects on fathers remains unanswered.

Media-based approach. The cost of parent training has been cited as a disadvantage: an alternative to live training is media-based training. Kashima, Baker, and Landem (1988) compared a media-based program to the same
curriculum using a professional leader and a delayed-training control condition. Training consisted of four weekly group meetings, four weeks of teaching at home with no meetings, and an individual posttraining assessment session. The four sessions covered self-help skills, behavioral teaching techniques, using reinforcers, and troubleshooting problems. Outcome measures consisted of a test of knowledge of behavior modification principles (Behavioral Vignettes Test; Baker & Heifetz, 1976), a test of skill in using behavior modification techniques (Teaching Proficiency Test; Clark & Baker, 1982), an interview on teaching and behavior problem management during the previous three months (Teaching Interview; Ambrose & Baker, 1979), and a checklist of child self-help skills.

Media-trained families showed significantly greater gains than did control families on all outcomes measures, with the exception of the Teaching Proficiency Test. Therefore, the media-based training showed greater increases in parents' knowledge and implementation efforts at home, but did not show demonstrable changes in teaching techniques. Kashima, Baker, and Landem (1988) suggested that a media-based program can be a useful and cost-effective intervention. However, the study has several limitations. Follow-up measures were not conducted, and therefore the durability of the changes was not addressed. By only taking pre- and post-training measures, how changes progressed during training were lost. Furthermore, no observations of parent-child interactions were made, so the generalizability of the skills the parents learned is limited.

Language training approach. Weitz evaluated the reliability of a code for measuring teaching skills of parents of children with developmental disabilities (1981). Twelve sets of parents with children ages 2-6 participated in a behavior management and skills program. Requirements for inclusion
included that the children had a severe language deficit and did not have a primary diagnosis of mental retardation or aphasia.

Pretreatment assessment consisted of three assessment batteries. At the first meeting with the parents, a group leader obtained a developmental history, the Alpern and Boll (1972) Developmental Profile, and an assessment of the child's language functioning on a 21 step series of skills involved in the development of speech for autistic children (Harris, Wolchik, & Weitz, 1981). In addition, the interviewer videotaped parents in the Teaching Behavior Task, a structured interaction designed to permit measurements of parents' proficiency as teachers for their children. The second pretreatment assessment used the same language skills as the first assessment session. In the third pretreatment assessment, or waiting period assessment, the child's language skills were reassessed and these items were used in the Teaching Behavior Task. The waiting period assessment and the first two pretreatment assessments were designed to allow the entire pool of subjects to serve as its own control.

The goal of treatment was to give parents the skills needed to teach their children in the areas of behavior management and language acquisition. Co-leaders conducted two groups of six parents each. Parents attended the 2.5 hour groups weekly for 10 consecutive weeks. Approximately half of each class was devoted to didactic instruction, and the remainder spent discussing parents' issues with their children that related to the topic, modeling and practicing interaction, and homework assignments. Topics included 5 weeks of behavior modification instruction and 5 weeks of language training instruction. Every other week, one of the group leaders visited the family's home. After treatment, the group leader conducted the posttreatment assessment, identical to the waiting period assessment. The Teaching Behavior Code (TBC) was utilized to assess the effects of the training program. Changes in the TBC scores were
evaluated, and a highly significant treatment effect was found when scores were averaged across all eight categories. This study indicated that the TBC can reliably discriminate between parents' correct and incorrect use of discrete and specifiable behavior modification skills. Unfortunately, researchers must have considerable financial and human resources available to use the code properly and to its fullest potential.

**Individual Training Formats**

Approaches to individual parent training have largely been behavioral. Many of the individual studies reviewed focused on teaching correct antecedents, i.e., how to deliver instructions, commands, or prompts. In addition, many studies also included an emphasis on correct consequences (i.e., positive attention to appropriate behavior and consequences for inappropriate behavior). Maintenance and generalization of the behavior changes have also been primary concerns in the literature. A review of behaviorally oriented individual training studies relevant to the proposed study will follow.

Cunningham (1985) noted that one major advantage of individual parent training is that it allows greater flexibility in meeting individual needs and greater contact time with parents. Comparisons of group and individual programs with identical content and similar families have found both equally effective on a variety of outcome measures and rates of drop-out (Brightman, Baker, Clark, & Ambrose, 1982; Kovitz, 1976; Pevsner, 1982). However, Mira (1970) and Firth (1982) found groups to be less efficient with regards to family and therapists' time with similar changes in children's behavior. Furthermore, Eyberg and Matarazzo (1980) noted group programs were less effective and less satisfying to parents than individual programs in a clinic setting.

**Teaching antecedents.** One approach to parent training consists of teaching methods of instruction giving (also called definitive commands,
instructional sequence, or prompting). This method of teaching antecedents to the child's behavior has been utilized in several studies. One such study was conducted by Van Hasselt, Sisson, and Aach (1987), who implemented a training program to increase compliance in a four year old child with multiple handicaps (blindness, diabetes, hypotonia, and mental retardation). The child displayed stereotypic and noncompliant behavior. His mother participated in training; his father was present in the household, but did not participate.

Training was conducted in a clinic setting, twice weekly, during a three month period. Intervention consisted of direct instructions, role-playing, modeling, behavior rehearsal, and performance feedback. Assessment consisted of behavioral observations of parent and child behavior; trained observers viewed videotapes of the assessment sessions and rated parent and child behavior.

Measures of mother's behaviors included definitive commands, positive attention, and persistence with commands following child's noncompliance. These three behaviors were the three parent skills targeted for intervention in a multiple baseline across mother behavior design. Measures of child behaviors included compliance, on-task, oppositional, and stereotypic behavior.

Van Hasselt and colleagues (1987) reported that the introduction of treatment for definitive commands, positive attention, and persistence with commands resulted in improvement over baseline levels for all behaviors. Treatment gains were maintained at a 6 month follow-up. Results indicated that this multiple component parent training strategy improved the mother's ability to give definitive commands, provide appropriate positive attention, and persist with commands, resulting in higher levels of child compliance. The authors suggested that the training in definitive commands was the most important factor contributing to improved child compliance because the greatest changes in child compliance were observed following introduction of training in
definitive commands. Anecdotal reports from the mother indicated that the positive changes were evident at home as well. One strength of the study is that data were collected continuously throughout the study using a multiple baseline design, allowing the experimenters to establish specific factors accounting for observed changes in child behavior. Limitations of the study, however, include the lack of observational data in the home setting and the need to include the father in the intervention.

**Teaching consequences.** Van Hasselt, Sisson, and Aach (1987) also addressed consequences (i.e., positive attention) as well as antecedents. It should be noted that while training in definitive commands resulted in small increases in all three parent behaviors, effects on individual behaviors (e.g., positive attention and additional commands) were most pronounced when treatment was applied directly to each of them. The authors suggested that the definitive commands training contributed the most to improved child compliance. Yet consequences for noncompliance consisted only of 'persists with commands'.

Other studies have taught additional consequences for noncompliant or inappropriate behavior. In an early study, Moore and Bailey (1973) treated a three-year old girl with autistic-like behaviors, frequent tantrums, and noncompliance. They trained the mother by means of cues to provide contingent attention and deliver punishment. The mother demonstrated appropriate contingencies during and after fading of therapist cueing. A seven month follow-up in the clinic indicated that improvements in targeted mother and child behaviors were maintained. Data from the home observations were not presented due to reported reactivity to the observers.

A similar study conducted by Budd, Green, and Baer (1976) focused on teaching differential attention to a mother of a three-year old girl with
developmental delays. Training took place daily in a laboratory, five days weekly. A total of 106 sessions (21 weeks) were conducted; data were summarized into session blocks containing data from four experimental sessions. Intervention focused on teaching the mother to decrease attention to her child's noncompliance with instructions. The mother was trained using written and verbal explanations of the treatment procedures, as well as brief feedback after each session. Five parent target behaviors (subclasses of attention) were observed and recorded: 1) excessive repetition of instructions, 2) delivery of instructions contingent on inappropriate child behavior, 3) physical intervention to effect compliance, 4) tangents (giving additional instruction and attention after command), and 5) failure to use any form of time-out for noncompliance. Target child behaviors included inappropriate behavior (such as noncompliance, putting objects in mouth, crawling on the table) and correct response (placement of correct object in or on the correct locale and release of hands from object, not including occasions when physical intervention was used to effect compliance).

Using a multiple baseline design across parent behaviors, training in the first three behaviors resulted in sequential decreases in the mother's behavior and slight improvements in some child responses. However, a decrease in the fourth subclass of the mother's attention to undesired behavior resulted in a significant increase in undesired child behavior. Therefore, a time-out procedure was taught, resulting in a complete remediation of targeted undesirable child behaviors. Follow-up at 4 months indicated that these effects were maintained. While the intervention successfully decreased the mother's inappropriate attention and increased the child's compliance, a lengthy intervention (106 sessions in 4 months) was required. In addition, the
generalizability of the study was limited because no home observations were made. Furthermore, the father was not included in training.

**Maintenance and generalization.** Generalization has often been noted as an important aspect of parent training (Handleman & Harris, 1986). Cordisco and colleagues examined the effectiveness of a behavioral parent training package that included initial training in two settings in the home with generalization of parenting skills being assessed in a third setting in the home (Cordisco, Strain, & Depew; 1988). Generalization of parenting skills was assessed in parent-identified problem settings that were individually determined for each family based upon information obtained through an initial interview. Subjects included three mothers of young children with autism from a preschool serving children with behavioral disabilities. Again, fathers were not included in the parent training. In addition, the subjects' children were diagnosed with autism, which represents a rare childhood disorder compared to the abundance of children with more general pervasive developmental delays. All parents attended a weekly 2 hour behavior management training class that ran for 10 weeks concurrent with the intervention. Researchers observed three in-home settings for each family in sets of weekly observations.

A multiple baseline across subjects (mothers) design was employed. The dependent variables consisted of two discrete child target behaviors (direction following and appropriate behavior), and parent behaviors (physical prompts, consequences for direction following or non-direction following, and attention to appropriate and inappropriate child behavior).

The first author and a preschool social worker led the parent training classes. Information covered in the classes included identifying and defining behavior, measuring behavior, how to increase behavior, how to decrease
behavior, and direction-following training. Instructional format included group activities, role playing, discussion, and written handouts.

Assessment of generalization of parenting skills to a third setting indicated that only one mother spontaneously demonstrated optimal generalization to the nontraining setting. The implementation of in vivo generalization training for the second mother and an instruction to generalize for the third mother resulted in an immediate increase in targeted behaviors for both parents. Results of pre/post assessments of parents' knowledge of behavior management principles (O'Dell, 1979) indicated that all three parents increased their knowledge of behavior principles following participation in parent training (Cordisco, Strain, & Depew, 1988).

To summarize, Cordisco and colleagues utilized mothers of children with autism and found that after 10 sessions of parent training, one mother spontaneously generalized, one mother generalized with training, and the third mother generalized after a specific instruction to generalize (1988). Strengths of the study include the methodological design, direct observation, and the generalization data. However, the results cannot be generalized to fathers or to children with pervasive developmental delays other than autism.

A recent study examined the direct and generalized effects of a multi-component, parent-training program on the teaching behavior of mothers of autistic children (Moran & Whitman, 1991). Subjects consisted of seven boys and one girl, ages 3 to 9 years, and their mothers, recruited through a social service agency. Fathers were not included in the parent training. The children were diagnosed as autistic with severe or profound mental retardation. Therapists conducted training sessions in the home. The authors trained the mothers using a puzzle (play) task and assessed for generalization to second play task, a pegboard, as well as to a self-dressing task. Five categories of
parent behavior and six categories of child behavior were recorded during observation sessions. Maternal behavior variables included 1) prompt, 2) reward, 3) punishment, 4) other verbalization, and 5) no interaction with toy or child. Child behavioral variables consisted of 1) task-oriented behavior, 2) positive affect, 3) negative affect, 4) other inappropriate, 5) appropriate-no interaction, and 6) noncompliance.

Mothers and children were randomly assigned to one of two training groups. One training group, sequential training, received three sessions of skills training followed by three sessions of generalization training. The simultaneous group received both skill and generalization training simultaneously for six sessions. A multiple baseline across subjects design was employed. Subjects 1, 3, 5, and 7 were sequentially trained, and subjects 2, 4, 6, and 8 were simultaneously trained.

Skills training consisted of discussing the booklet (training manual), watching a 30 minute video on fading of prompts (instructions, modeling, physical guidance), reinforcement, and shaping. After the video, the therapists presented each mother with an activity card describing the skills and asked her to use the procedures on the card with her own child. Generalization training was similar. A booklet, video, and behavioral planning exercise were used. The booklet described generalization, different types, why it is important, and how and when to use the techniques learned during skill training in other situations. Sessions were about 90 minutes. Following training, 3 to 9 maintenance probes were conducted. The length of this follow-up period was unfortunately not noted.

Moran and Whitman (1991) found no systematic change occurred as a result of the addition of the generalization component. Following training both groups were more skilled in the use of prompts and used contingent reward
more frequently. These positive changes were maintained during the probes. In contrast to Cordisco et al. (1988), generalization occurred before it was introduced, and no further changes occurred after it was presented to parents. The authors observed no difference between the sequentially and simultaneously trained mothers. Possible explanations include that the nature of the skills training program promoted generalization, that the booklet emphasized the general utility of the skills, and that the characteristics of the mothers (e.g., highly motivated, concerned, well educated) facilitated generalization. Maternal and child behavior improved as a result of training. Mothers became more skilled in their use of prompts, and used reward more frequently and in a more contingent fashion. Children increased target behaviors on the puzzle and pegboard (generalization) tasks.

As with Cordisco et al. (1988), Moran and Whitman (1991) utilized mothers of children with autism. However, while Cordisco et al. (1988) found that generalization occurred spontaneously with one mother only, Moran and Whitman (1991) found that generalization occurred before it was introduced. These findings suggest that generalization may occur without training; however, the results are limited to motivated and educated mothers of autistic children. Strengths of the study include the methodological design, direct observation, and the data on generalization.

Predictors of Outcome

Although some parents can effectively be trained as intervention agents for their children, not all parents benefit. Numerous studies have looked at factors related to success in parent training of children with a variety of problems. Clark, Baker, and Heifetz (1982) studied factors related to outcome with families who completed a 20-week training period focusing primarily on self-help skills and secondarily on behavior problem management and language
development. The children in the families ranged from mildly to severely retarded, with an average age of 7.3 years. Outcome measures consisted of parents' knowledge of behavioral principles (Mothers Behavioral Vignettes Test: Baker & Heifetz, 1976) and their teaching during a follow-through period (14 months after training follow-up interviews were conducted to determine extent and quality of teaching since the training program). As in previous studies, the families social class, income, and mother's education were positively related to posttraining proficiency. However these factors were not related to parents' continued teaching during the follow-through period. Factors related to continued teaching included posttraining Behavioral Vignettes Test score, number of sessions attended during the training, and the trainers' prediction of follow-through. Clark and colleagues did not find that child variables (age, sex, self-help skills) in their study were related to parent performance (1982).

Severity of child's disorder and number of child behavior problems were not included as potential factors related to parent performance. In addition, the authors did not assess which factors were related to child behavior change.

Additionally, predictors of success in parent training include parental and child characteristics (Cunningham, 1985). Parent characteristics related to success include SES and level of education (Clark et al., 1982), family status and support (Wahler, 1980), marital relationship (Patterson, 1974), personality (Firestone & Witt, 1982), and prior knowledge and experience (Clark & Baker, 1983; Cunningham, 1985). In general, the less severe or complex the handicap or problem of the child, the more successful the training in terms of changing child behavior (Cunningham & Jeffree, 1975; Brassell, 1977; Firth, 1982).

Brassell (1977) noted that girls tend to benefit more than boys. However, in
one study Clark and Baker (1983) found no relationship between parent
outcome and sex, age, level of functioning, degree of behavior problems or
diagnosis.

Critical Reviews and Clinical Implications

Breiner and Beck (1984) reviewed behavioral parent training literature
that addressed reducing noncompliance with developmentally delayed children.
Five of the 13 studies reviewed consisted of group training approaches, while
eight studies consisted of individual approaches. Breiner and Beck (1984)
concluded that parent training techniques appear to successfully modify
noncompliant behaviors displayed by children with developmental delays.
These authors also noted consistent methodological weaknesses found in the
majority of the studies reviewed. First, although the use of multiple outcome
measures has been cited as necessary in the assessment of behavioral treatment
effects (Atkeson & Forehand, 1978; Johnson & Eyberg, 1975), only six of the
studies reviewed used parent self-report measures, parent-completed
questionnaire data, and/or parent-recorded data in addition to behavioral
observation data. Another shortcoming was the lack of reported data in the
home setting and follow-up assessments to assess for generalization and
maintenance of skills.

Helm and Kozloff (1986) assessed research on training programs for
families with children who are handicapped and contended that inadequacies in
the research lead to serious training limitations. They made some tentative
generalizations about research on parent training: 1) parent training consists of
multiple inputs, such as meetings, handouts, feedback, home visits, and specific
methods for use; 2) training seems to affect most parents beneficially; 3) the
precise relationship between the different training methods and the various
changes in parent behaviors has not been discovered; 4) beneficial changes in parent behaviors are usually followed by beneficial changes in their children's behaviors; and 5) training does not appear to be equally effective across all parents. In addition, after noting shortcomings in the research, Helm and Kozloff (1986) made several recommendations for future research. They suggested that researchers should examine a larger number of variables allowing them to develop a more useful picture of family life. Furthermore, observations in the home should be made often enough to sample the skills and performances of family members. The importance of data taken by parents, as suggested by Breiner and Beck (1984), is also emphasized. Finally, reporting demographic characteristics of the families, parents' expectations, and parents' emotional well-being, is recommended.

Hornby and Singh (1983) reviewed behavioral group parent training for parents of children with mental retardation. In the studies reviewed, favorable outcomes were reported in each instance. However, the inadequacies in reporting (e.g. details of content, method, and samples) and methodological shortcomings (e.g., failure to use controls, failure to conduct independent assessments, inappropriate outcome measures) suggest caution in interpretation. Criteria for inclusion of a study in the review were: a) the approach used was behavioral, b) subjects were parents, mostly of moderately mentally retarded children, c) group training was the major component of treatment, d) an objective evaluation was attempted, e) adequate information was provided to assess a-d, and f) studies had been published. Only eight studies were located that met the above criteria. The most recent study was conducted in 1977. The studies were analyzed with respect to factors that previous reviewers of parent
training literature found important. These factors were a) subject characteristics, b) program organization, c) details of the treatment program, d) research methodology, and e) reported intervention.

Although Hornby and Singh (1983) only reviewed group studies, a number of suggestions can be applied to individual parent training as well. First, a common problem was inadequate taxonomic description of the client population. In addition, some studies did not give an adequate description of the recruitment procedures, parents' attendance, number of parents in each group, or the number, length and frequency of the sessions, which would be necessary to replicate the studies. Thirdly, more information on the leaders' experience and training is needed. The need for leaders to be skilled and experienced in working with groups of such parents has been well documented elsewhere. A fourth deficiency was that in some studies the goals of the intervention were not explicitly stated. The lack of explicit statements about the goals of the intervention make it difficult to evaluate whether the programs were successful in accomplishing what was intended. A fifth deficiency was the limited amount of information provided on the content of the training sessions as only three studies specified the procedures. An additional omission was descriptions or examples of procedures employed. A seventh complaint was that while all authors reported a favorable change, only half of the studies used adequate experimental designs. Finally, the absence of long-term follow-up data makes it impossible to determine whether treatment effects were maintained (Hornby & Singh, 1983).

Hornby and Singh suggested that the findings of these studies should be regarded as providing only a tentative estimate of the effectiveness of the behavioral group training approach with parents of children with mental
retardation (1983). Further research studies are required which avoid the deficiencies mentioned here.

A recent review of parent behavioral training included studies involving families of children with developmental disabilities (Graziano & Diament, 1992). The most frequently used dependent variables in the studies they reviewed consisted of improved self-help skills of the children or increased parental knowledge of training skills. The reviewers concluded that parent behavioral training appears more effective in improving parental behavior and attitudes than in improving child behavior. In addition, they suggested that parents of children with mental retardation do not benefit from general behavioral training, but that individualized and highly specific action oriented training is more effective in producing parent change.

Baker (1988) reviewed some design problems of previous studies. Baker observed that parent training has rarely been compared with an attention placebo control; therefore, researchers cannot determine the extent to which observed effects are accounted for by non-specific aspects of being in treatment, such as the client's expectations or the therapists' attention. He also noted the difficulties in group designs and emphasized that single subject designs, especially with multiple baseline across subjects, behaviors, or situations, can contribute convincing data.

Research on Fathers and Father Involvement

Benefits of Father Participation

Although limited research on fathers with children who have developmental disabilities exists, results from research on families with normally developing children are relevant. In general, research suggests numerous benefits of father involvement for both parents and children (Lamb,
Furstenberg and Harris (1993) reported that children who were more attached to their father were significantly less likely to have experienced negative outcomes (related to educational and work attainment, imprisonment, depression). Additionally, Lamb (1981) found that increased involvement of fathers was consistently related to better child development with regard to academic achievement, social adjustment, and personal identity.

In families with increased father involvement, mothers report greater satisfaction with their marriage and less depression and psychological distress than do mothers in more traditional families (Hoffman, 1983; Lamb, Pleck, and Levine, 1986; Russell and Radin, 1983). Fathers who participate more in child care report increased feelings of competence as a parent, an improved relationship with the children, less family stress regarding roles, and increased self-esteem and marital satisfaction (Hoffman, 1983; Lamb et al., 1985; Russell & Radin, 1983).

A recent study by Willoughby and Glidden (1995) focused on families with at least one child diagnosed with, or at risk for, a developmental disability. They tested a model predicting marital satisfaction of parents of children with disabilities as a function of stressors (care-taking demands of a child with developmental disabilities), coping resources (family income and maternal education), and cognitive appraisal (paternal care-taking and maternal employment), hypothesizing that increased father involvement would be related to greater marital satisfaction. Data were collected from 48 married predominantly middle class couples. Nineteen percent of the children were classified as having severe or profound mental retardation, 52% were diagnosed with mild or moderate mental retardation, and 29% were not currently
diagnosed with mental retardation, but had or were at risk for a developmental disability.

Regression analyses from Willoughby and Glidden (1995) indicated that for both parents, greater father participation in child care was associated with greater marital satisfaction. The authors suggested that father involvement affected both parents' cognitive appraisal of the degree of stress related to caring for a special needs child. Alternately, the authors noted the possibility that parents who share the burden of care enhance their marriage in the process. In addition, greater father involvement in child care likely decreases the burden of responsibility placed on the mother. The study did not assess the direction of the relationship between father involvement and marital satisfaction: it may be that parents who have greater marital satisfaction before the birth of a special needs child are more likely to share the responsibilities of child care.

Willoughby and Glidden (1995) argued for a bi-directional relationship, with high marital satisfaction leading to a greater sharing of responsibilities, leading in turn to the maintenance or increase in marital satisfaction. Research that increases fathers' participation in child care could more clearly address the direction of the relationship between father involvement and marital satisfaction.

Determinants of Father Involvement

Given the numerous benefits of father involvement in child care, one would expect today's fathers to be more involved with their children. In fact, fathers are more involved than ever before (Lamb, 1986). With the increasing number of working mothers, the need for greater father participation is especially evident. Researchers have indicated that a mother's participation in the work force has little if any effect on a father's participation in child care (Marsiglio, 1993). Although fathers may be more involved if mothers work at night or on the weekend, their involvement may depend on their own work
schedules (Presser, 1988, 1989). Garbarino (1993) noted that 'traditional fathers', who set goals in business and industry over investing time in their children, have historically depended on a mother who stayed at home. Societal changes in the roles, opportunities, and interests of women have helped a 'new fatherhood' to evolve. However, mothers who take jobs outside the home generally add those increased responsibilities to their full-time responsibilities in the home as an increased involvement on the part of fathers typically has not occurred (Garbarino, 1993).

One of the difficulties in research on paternal involvement relates to defining involvement. Lamb (1986) distinguished 3 aspects of paternal involvement. Lamb defined the first, called engagement or interaction, as one-on-one interaction (e.g., feeding, helping with homework, playing catch). Lamb described the second as parental accessibility to the child, which involves less direct interaction (e.g., cleaning in one room while the child plays in the next room). The final aspect of paternal involvement described was the most nebulous, and relates to "responsibility" types of activities. Lamb described this aspect as the degree to which the parent takes ultimate responsibility for the child's welfare and care (e.g., scheduling medical appointments, buying clothes). The time involved in these tasks was difficult to quantify. Researchers have indicated that fathers rarely take responsibility for organizing or managing their children's lives, i.e., doing "responsibility" types of activities (Marsiglio, 1993; Pleck, Lamb, & Levine, 1986). However, little is known about the factors related to fathers' lack of involvement in this area; support from within the family may greatly influence the degree of fathers' involvement. Surveys indicate that although fathers may wish to be more involved, somewhere between 60 and 80% of the women surveyed did not want their husbands to be more involved (Pleck, 1982; Quinn & Staines, 1979).
Lamb (1986) suggested that many mothers may be satisfied with the status quo, perhaps because they feel father involvement may create more work than it saves (due to fathers' lack of knowledge in the area). Alternatively, greater father involvement may alter the basic power dynamics with the family (Polatnick, 1973). In recent history, women have maintained authority in the child care area. Thus women may be unwilling to give up unquestioned power and authority in child care for the risk of possible authority in another area.

Lamb (1986) described four determinants of father involvement, and stated that family support or support from the mother is one of the four factors. A second factor, motivation, may be related to social and societal changes in how male and female roles are viewed. Lamb described another determinant as skills and self-confidence, and noted that motivated fathers often complain of a lack of skills preventing greater involvement in child care. In these instances, formal skill development programs appear vitally important. Lamb suggested one way for fathers to get involved may be to do enjoyable activities together, and thereby increase their sense of self-confidence. Also, learning specific skills may provide "useful vehicles for the development of sensitivity and self-confidence" (Lamb, 1986, p.21). Lamb described the final factor, institutional practices which relate to the financial needs of the family and the barriers presented by the work place. When the father is the primary wage earner, the pressure to conform to the demands of the work place over demands of child care may be particularly great. However, research indicates that for every 60 minutes not spent in paid work, men spend 20 minutes in family work, while women spend 40 to 45 minutes in family work (Pleck, 1983).

Lamb (1986) reported the benefits of increased father involvement, defining increased father involvement as fathers who share or take primary responsibility for child care. However the authors emphasized that in all the
studies reviewed, fathers were involved by choice (i.e., both father and mother desired increased father involvement). Lamb and colleagues suggested that the effects of father involvement may be more dependent on the reasons for the involvement (and both parents perceptions of the involvement) rather than the extent of the involvement.

Although researchers have supported the benefits of increased father involvement, how both parents feel about father involvement should not be ignored. Lamb, Pleck and Levine (1985) warned that assuming increased paternal involvement is necessarily beneficial in all family circumstances may be a mistake. Likewise, in families with special needs children, each family will likely define their own structure and pattern for coping. Many researchers caution professionals not to assume a specified level of parental involvement is required (McConachie, 1982; Rodger, 1986; Lamb, 1986).

Previous Research on Fathers

In order to develop effective programs and methods of involving fathers, researchers need information about fathers. In general, researchers usually neglect fathers of children with developmental disabilities. Meyer (1986) noted that although fathers have recently been a focus of research, fathers of children with special needs have been relatively ignored. One major gap in the literature is the lack of observational or experimental studies of fathers interacting with their handicapped children (Lamb, 1983; McConachie, 1982). Meyer (1986) pointed out that organizations for parents and handicapped children offer fewer services for fathers than mothers, and the programs rarely request and obtain participation from fathers. Therefore, fathers have fewer opportunities to share their concerns about their handicapped children (Meyer, 1986). Meyer suggested that programs try to increase fathers' typically low attendance at programs for parents of children with special needs.
Most studies that look at the psychosocial functioning of parents have primarily focused on mothers’ adaptation (Bristol & Schopler, 1983; DeMyer, 1979; Lieberman, 1982; Marcus, 1984; Tavormina, Boll, Dunn, Luscomb, & Taylor, 1981). In an effort to address the dearth of information available about fathers of children with special needs, Rodrigue and colleagues compared fathers of children with autism, with Down syndrome, and without developmental disabilities across several intrapersonal, family, and social-ecological domains of psychosocial functioning (Rodrigue, Morgan, & Geffken, 1992).

Subjects were 20 fathers of children with autism, 20 fathers of children with Down syndrome, and 20 fathers of normal children matched for child’s adaptive behavior age equivalent, gender, birth order, family size and SES (Rodrigue et al., 1992). The authors assessed intrapersonal variables with the Parenting Sense of Competence Scale (PSCS; Gibaud-Wallston & Wandersman, 1978) and the Ways of Coping Scale (WCS; Lazarus & Folkman, 1984; modified by Felton, Revenson, & Hinrichsen, 1984). In order to look at family variables, such as cohesion and marital adjustment, the authors employed the 15 item Marital Adjustment Scale (MAS; Locke & Wallace, 1959), the 20 item Family Adaptability and Cohesion Evaluation Scales (FACES-III; Olsten, Portner, & Lavee, 1985), and the revised Impact of Family Scale (IFS; Stein & Jessop, 1985). In addition, they looked at videotapes of interactional play of the fathers with their children. Socio-ecological variables, or perceived availability of and satisfaction with social support, was assessed with the Social Support Questionnaire (SSQ; Sarason, Levine, Basham, & Sarason, 1983).

Although fathers of children with autism or Down syndrome reported more disruption in family planning and increased financial burden because of
their children, their reported levels of perceived parenting competence, marital satisfaction, and social support were comparable to those reported by fathers of normal children. Overall, relative to the severe deficits observed in this sample, fathers reported a healthy level of psychosocial adaptation to raising a child with special needs. Fathers of children with autism or Down syndrome reported more frequent use of wish-fulfilling fantasy and information seeking as coping strategies, as well as more financial impact. The authors observed few differences between fathers of autistic and Down syndrome children.

Not all training studies have ignored fathers: one study addressed the effect of training programs on mothers, fathers, and children with handicaps (Sandler, Corehn, & Thurman, 1983). Sandler and colleagues evaluated the effects of a parent training program on six child areas (i.e., self-help, fine motor, gross motor, receptive language, expressive language, cognitive development). In addition, they assessed change in parent attitude, parent-child interaction, and knowledge of instructional principles. Twenty-one mothers participated in the study, and 15 fathers were evaluated on the same measures before and after their wives received training to assess any collateral changes. Sandler and associates (1983) found that changes in the attitude of the experimental group mothers and fathers were correlated with progress made by their children. With child improvement, mothers tended to express more positive attitudes while fathers tended to express more negative attitudes. The authors suggested that an intervention which strengthens the proximity of mother and child, while ignoring the father, might act to weaken the relationship between the spouses. The time a mother spent with her child may have been related to greater progress by the child, but at the expense of time that might have been spent with the father. While positive changes in knowledge and parent-child interaction occurred for mothers, no changes occurred in these areas for fathers. Sandler
and colleagues concluded that this finding, along with the negative relationship found between child change and father attitude, strongly suggests the need to involve fathers when a training program is provided to mothers (1983).

A later study involving parent training for conduct problem children also supports the importance of involving fathers (Webster-Stratton, 1985). Thirty families who received family training for conduct-disordered children were divided into two groups, father involved families and father-absent families. Results indicated that the fathers who were involved in the parent training program made significant attitudinal improvements. In addition, these positive attitude changes were maintained one year later. Webster-Stratton (1985) also found significant differences in treatment outcome between father-involved and father-absent families. At one year follow-up significantly more of the mother-child dyads who maintained behavioral improvements came from father-involved families. However, the limitations of the study include the lack of systematic observation of the father and child. Due to scheduling difficulties, only the mother and child behavior interactions were systematically observed. Furthermore, the lack of a comparison control group of father-involved or father-absent families who did not receive treatment limits the generalizability of the findings. It is difficult to determine if the more favorable long-term outcome for father-involved families was because fathers were trained and participated or simply because they were present in the home.

In an effort to involve fathers in parent training, the effects of a mother training her spouse in child management techniques were evaluated (Adubato, Adams, & Budd, 1981). Both parents of a six-year-old boy with developmental disabilities participated in the study. Each parent was asked to work with the boy on three preplanned activities: dressing, eating, and toy use. All probe
sessions (sessions in which data were collected) were conducted in a clinic room and videotaped. Training sessions were conducted in either the same clinic room or in the home. The mother worked with her son and received suggestions and assistance on the application of child management skills to dressing and was told the procedures should work in areas other than dressing. The experimenter conducted training for the mother; then the mother provided training for the father. Parent behaviors targeted for change were trained in two phases. Phase one consisted of training in delivering appropriate task-related instructions and in physical guidance following noncompliance to ensure that the child followed through with instructions. Phase two consisted of training the parent to use partial guidance whenever possible to effect more independent compliance with instructions and reducing parents' preempts (parent completes step for child with no child participation) by allowing the child to attempt all steps of the task on his own.

In this study by Adubato and colleagues (1981), the mother learned to implement the trained procedures and successfully trained her husband; substantial positive changes in both parents' behaviors occurred after being introduced to the child management skills. In addition, both parents showed some generalization to the untrained activities. Improvements in the child's attending, independent performance of dressing, and toy use skills were also observed concurrent with training. A two-year follow-up report indicated that both parents retained their knowledge of the skills taught and continued to use the procedures (Adubato et al., 1981). Factors that may have facilitated the successful transfer of skills across parents include that both parents were college educated and motivated, no evidence of marital stress was observed, the program was individualized and intensive, it dealt with practical situations the
family encountered, and the observer was present for occasional training
sessions with the spouse.

In addition to the benefits individual families receive from parent
involvement, research supports that early childhood programs also benefit from
parent involvement. However, parent involvement once again has typically
meant 'mother involvement' (Levine, 1993). Furthermore, despite the increased
awareness of the benefits of father involvement, few programs designed
specifically for fathers of children with special needs exist (May, 1991). The
Department of Health and Human Services (HHS) is attempting to rectify the
neglect of fathers by targeting Head Start for program and policy change. In
1987, a national Head Start consulting panel on parent involvement highlighted
the importance and need for funding of more research projects that 'focus on
fathers and other men in relationships with Head Start female head of
1989, the Silver Ribbon panel of the National Head Start Association
recommended the development of strategies to strengthen father involvement
(Levine, 1993).

An underlying assumption of the Department of Health and Human
Services initiative to get fathers involved is that parents are involved and benefit
from the participation. Levine noted that although recent participation by
parents in Head Start has not been fully documented, several studies suggest
mother involvement in a variety of roles (1993). Again, limited data on fathers
exist. The majority of the studies Levine reviewed (all but one) failed to report
data separately for mothers and fathers; researchers used parent as a synonym
for mother. For instance, Levine reported that the most extensive Head Start
study currently in progress is a five year quasi experimental longitudinal study
of Head Start children, their parents and siblings designed to include "an
assessment of the full family benefits of Head Start, and the development of replicable, empirically based strategies for enhancing parent participation" (Piotrkowski & Parker, 1991, p.1). The study, however, focuses exclusively on mothers. Alternatively, Levine noted that fathers have been difficult to study (1993). Levine (1993) found that in the only survey that focuses specifically on father involvement in Head Start, almost 75% of the fathers reported that they participated in Head Start activities only a few times a year or not at all. However in the same survey, the majority of fathers (97%), mothers (98%), and staff persons (100%) felt that the importance of father involvement ranged from important to very important (Gary, Beatty, & Weaver, 1987).

Levine (1993) reviewed the available research and concluded that increasing father involvement will have positive outcomes for families, but noted two main points: 1) no minimum threshold or specific amount of involvement is automatically beneficial; 2) the nature or style of the father-child interaction is important, not the quantity. Levine (1993) asserted the importance of including fathers in data collection of all future research projects on Head Start, unless it can be shown why such a component would compromise research design or jeopardize the usefulness of results.

Given the goal of increasing father involvement, the type of activities professionals target for father-child interaction may be important. As noted earlier, motivated fathers often cite a lack of skills as preventing participation in child care (Lamb, 1986). Therefore, one approach to targeting fathers of children with special needs is to teach specific skills fathers can use daily, such as self-help skills. Furthermore, children with developmental disabilities need more structured teaching when learning new skills or tasks as incidental learning has not been very effective (Cunningham, 1985; Baker, Brightman, Blacher, Heifetz, Hinshaw, & Murphey, 1989). The amount of time a father has
available needs to be taken into account because it limits time available for teaching. McConachie (1982) noted that teaching self-help skills, such as dressing, might be most useful for families who have only limited one-on-one interactions with their child with developmental disabilities. By targeting an activity that parents will already be doing, professionals limit the new demands placed on families of children with special needs.

Summary and Purpose

In conclusion, several suggestions for parent training research can be gleaned from the literature. Many reviews of empirical research on parent training conclude that a thorough description of the subjects, methods used, and desired outcome should be provided (Breiner & Beck, 1984; Graziano & Diament, 1992; Helm & Kozloff, 1986; Hornby & Singh, 1983). The importance of an adequate experimental design was also frequently emphasized (Baker, 1988; Breiner & Beck, 1984; Graziano & Diament, 1992; Helm & Kozloff, 1986). Additional suggestions include utilizing multiple outcome measures and home observations (Breiner & Beck, 1984; Helm & Kozloff, 1986) and individualized training programs (Graziano & Diament, 1992). This study addresses these suggestions by providing a thorough description of subjects, methods, and outcome, as well as by utilizing parent outcome measures and home observations. Furthermore, an adequate experimental design (multiple baseline across behaviors) avoids methodological limitations of past research on parent training for families of children with developmental delays.

Unfortunately few studies have examined fathers in 'parent training' (Adubato et al., 1981; Bristol & Gallagher, 1986; May, 1991; Meyer, 1986). Yet the advantages of involving both parents in the training program have been advocated in many studies (Adubato, Adams, & Budd, 1981; Baker, 1989;
Kelley, Embry, & Baer, 1979; Sandler et al., 1983). In addition, the numerous benefits of father involvement for both mother and father, as well as the children, have been documented (Russell & Radin, 1983; Lamb et al., 1986; Baruch & Barnett, 1986; Hoffman, 1983; Webster-Stratton, 1985; Willoughby & Glidden, 1995). Thus, this study addresses an important area of research and adds needed information to the literature on fathers in parent training.

Lamb (1986) suggested a lack of skills was one determinant of father involvement and asserted that teaching fathers specific skills may facilitate their sense of confidence as a parent. In a similar vein, McConachie (1982) noted that targeting self-help skills may be most useful for families with limited time available to teach their child with developmental disabilities. This study targets teaching fathers specific behaviors (instruction giving, positive attention, and consequences) and focuses on the area of self-help skills.

As Cunningham (1985) noted, parents can be an economical method of intervention, as well a means of increasing generalization and maintenance. In addition, most behavior is learned and maintained in the home; therefore, only small changes are likely to occur by treating the child outside the home (Berkowitz & Graziano, 1972). This study, like previous parent training studies, focuses on parents as the intervention agents. However, this study adds to the existing literature in several important ways. First, the present study is unique in its use of fathers as change agents (or therapists). Fathers have been long neglected in the area of research, especially in families with children with developmental disabilities. In addition, this study includes home training and home observations. Although the benefits of home observations have been frequently cited, few studies include sufficient home observations (Breiner & Beck, 1984; Helm & Kozloff, 1986). Finally, the present study includes behavioral observation as well as parent self-report measures of stress and
satisfaction with the program. Previous research has often failed to utilize multiple outcome measures. Thus, the present study adds to the literature on fathers in families of children with developmental disabilities.
GENERAL METHOD

Subject Recruitment and Subjects

Several different approaches for recruiting subjects were employed. The experimenter contacted local professionals, school systems, developmental centers, agencies and services for families with children who have developmental disabilities, mental health centers, and parent support groups. The experimenter attended parent support group meetings, placed advertisements in The Association for Retarded Citizens (ARC) Newsletter, and attended several Local Interagency Coordinating Council (LICC) meetings; the LICC is composed of people from agencies that serve children birth through five years who have developmental delays, atypical development, or those at risk for special needs. Recruitment letters addressed to parents describing the study and listing the experimenter as the contact were distributed (See Appendix A). In order to ensure confidentiality, interested parents had the responsibility of contacting the experimenter. Numerous parents contacted the experimenter but decided not to participate. Reasons cited included the time commitment involved, the disruption of experimenter and observers coming to the home, a lack of need for new skills, a situation where the mother was interested but not the father, and a preference to not become involved. The experimenter conducted subject recruitment on an on-going basis.

Potential subjects were considered for inclusion in the study if they met the following criteria: 1) father agreed to participate in training, 2) father had not previously received formal training, 3) child was noted to have delays (two standard deviations below the mean) in cognitive and adaptive functioning, 4) during assessment observation, father demonstrated less than 70% correct behavior management techniques (i.e., clear instructions, positive attention, ignoring minor inappropriate behavior). In addition, to increase homogeneity
among the children, potential participants were excluded from the study if the child had received a diagnosis of autism.

Participants were four fathers and their children with developmental disabilities, here called by pseudonyms. The children ranged in age from 34 months (2 years, 10 months) to 76 months (6 years, 4 months), and exhibited delays (two standard deviations below the mean) in cognitive and adaptive functioning. Written, informed consent was obtained from parents regarding their participation and the participation of their child. Inducement for participation included the benefits of receiving free treatment for managing behavior problems encountered in children with developmental delays, and $50 remuneration for time and effort. The consent form is presented in Appendix B.

Setting and Data Collection

All observation and parent training sessions were conducted in the fathers' home approximately twice a week. Due to fathers' travel and work schedules, it was not always possible to meet twice every week; however every attempt was made to meet on a consistent basis. Direct observation was utilized for data collection and occurred for 10 minutes following each parent training session.

Each parent training session consisted of 15-20 minutes of hand-out discussion, role plays, practice, and feedback. As noted earlier, following the training session a 10 minute observation was conducted. If time permitted another parent training session was conducted in the same evening, followed again by a 10 minute observation. During observations fathers were asked to teach their child the self-help tasks identified at the intake interview. The experimenter asked fathers to remove distractions (e.g., television, radio) and refrain from answering the telephone during training and observation sessions. Since father behaviors were the focus of the study, mothers were not present during training and
observations; however, the experimenter offered to train mothers at no charge after the completion of data collection.

The family and the experimenter chose self-help skills to be taught on the basis of importance to the family, degree of noncompliance expected from the child, feasibility of teaching and observing the skills, and potential for the father to practice the teaching on a daily basis.

Rater training

Over the course of the study, five undergraduate students and one non-matriculating graduate student were recruited and trained to observe and rate father and child behaviors; class credit was provided for two of the students. Training consisted of providing the raters with written materials, discussion, practice sessions, practice tests, and performance feedback. The raters met with the experimenter approximately twice a week, for an hour and a half, to practice, ask questions, and take review quizzes. The raters practiced continuous interval time sampling using data sheets to record responses from videotapes prepared by the experimenter. The experimenter used four different videotapes. One videotape consisted of vignettes of a normally developing two and a half year old child being instructed in a variety of self-help tasks by her mother, father, and two other adults. The second videotape consisted of vignettes of a five year old child with autism and a normally developing two year old child being instructed in their home by their mother. Another videotape included a child with mental retardation being instructed by his mother in a clinic setting. The last videotape, introduced after formal data collection of the pilot began, consisted of vignettes from pilot study observations.

The raters and experimenter discussed and clarified any ambiguities in coding. Training continued until the raters reached a level of at least 80% agreement on three successive occasions. An agreement was defined as both raters...
scoring an identical response for a target behavior during a 10-second interval. Percentage agreement was calculated by dividing agreements by agreements plus disagreements and multiplying by 100%. Raters continued to practice response measurement until formal data collection began. Raters continued to have booster sessions approximately once a week to review response definitions in order to prevent observer drift (Reid, 1982).

**Recording and Reliability**

The experimenter videotaped each observation session of the first subject (pilot) in order to ensure adequate reliability and assist in teaching the observation code. Additional subjects were not videotaped for reasons of confidentiality and reactivity to the videocamera. Trained observers recorded father and child behaviors in vivo using continuous interval time sampling for a total of 10 minutes per observation (i.e., observers listened to a 10-minute cassette recording of 10-second intervals cued by tape).

**Interobserver Agreement**

A second rater simultaneously but independently recorded data during approximately one third (37%) of the sessions (ranged from 18% to 58% per subject) to assess interobserver agreement. Agreement was scored when both raters recorded a behavior identically in the same interval. Agreement was scored on an interval by interval basis for each of the 14 coded behaviors (e.g., question command, verbal prompt, verbal/gestural prompt). Interobserver percent agreement was calculated by dividing the number of agreements by the number of agreements plus disagreements and multiplying by 100%. Interval agreement for individual sessions ranged from 87% to 100%; mean agreements by behavior across sessions are presented in Table 1. As the rate of behavior varied from session to session and phase to phase, interval agreement rather than occurrence or nonoccurrence agreement was calculated.
Table 1

Interobserver Agreement: Mean Percent Agreement by Behavior

<table>
<thead>
<tr>
<th>Behavior Code</th>
<th>Chris</th>
<th>Jimmy</th>
<th>Travis</th>
<th>Edward</th>
</tr>
</thead>
<tbody>
<tr>
<td>V-Verbal Prompt</td>
<td>94</td>
<td>89.8</td>
<td>90.8</td>
<td>92.6</td>
</tr>
<tr>
<td>VG-Verbal/Gestural Prompt</td>
<td>96.5</td>
<td>97.7</td>
<td>-</td>
<td>98</td>
</tr>
<tr>
<td>V-F-Incorrect VG</td>
<td>98</td>
<td>100</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>VP-Verbal/Physical Guidance</td>
<td>97</td>
<td>97.5</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>V-F-Incorrect VP</td>
<td>96.7</td>
<td>96.7</td>
<td>98</td>
<td>-</td>
</tr>
<tr>
<td>R-Repeated Commands</td>
<td>96</td>
<td>94</td>
<td>98</td>
<td>98.8</td>
</tr>
<tr>
<td>?-Question Commands</td>
<td>97.8</td>
<td>98.5</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>IV-Incorrect Verbal Prompts</td>
<td>95</td>
<td>96.5</td>
<td>97.5</td>
<td>99</td>
</tr>
<tr>
<td>D-Don’t Commands</td>
<td>-</td>
<td>-</td>
<td>100</td>
<td>99</td>
</tr>
<tr>
<td>C-Compliance</td>
<td>93</td>
<td>94</td>
<td>97.7</td>
<td>96</td>
</tr>
<tr>
<td>C-Positive Attention</td>
<td>95</td>
<td>99</td>
<td>100</td>
<td>97</td>
</tr>
<tr>
<td>IA-Inappropriate Attention</td>
<td>99</td>
<td>97</td>
<td>99</td>
<td>-</td>
</tr>
<tr>
<td>IB-Inappropriate Behavior</td>
<td>97</td>
<td>97.7</td>
<td>97.6</td>
<td>99.3</td>
</tr>
<tr>
<td>AC-Appropriate Consequence</td>
<td>-</td>
<td>99</td>
<td>-</td>
<td>100</td>
</tr>
</tbody>
</table>

Behavioral Definitions

The father and child observation code included 12 father and 2 child behaviors (adapted in part from Forehand & McMahon, 1981). Nine of the father behaviors were antecedents to child behavior, and consisted of six types of incorrect instructions (described below) and three correct prompts (i.e., verbal, verbal/gestural, verbal/physical guidance prompts). Verbal prompts were defined...
as clear, concise verbal instructions that cued the child to perform a task (e.g., “Come to me”. “Pick up your ball”, “Sit down”). Verbal/gestural prompts were defined as a verbal prompt with a demonstration or gesture to the child of how to perform a task (e.g., "Sit down like this", "Hold up your arms like this", "Pick up your toothbrush like this"). Verbal/physical guidance prompts were defined as physical guidance (hand over hand) of the child's actions while providing verbal instruction. In addition to the three correct prompts, six types of incorrect instructions were also recorded: question commands ("Why don’t you sit down?", "Are you ready to go to bed now?"); repeated commands ("I want you to go to bed", "You need to go to bed", "Go to bed now"); don't commands ("Don’t run", "Don’t stand on the chair"); incorrect verbal prompts which were vague or unclear (e.g., “Calm down”, “Get going”) or suggestive rather than directive (e.g., “Let’s pick up your toys now”); incorrect verbal/gestural (e.g., did not give a verbal prompt with the gesture); and incorrect verbal/physical guidance (e.g., did not first try verbal/gestural prompt).

The remaining three father behaviors were consequences to child behavior, and included positive attention, inappropriate attention, and appropriate consequences. Appropriate positive attention was defined as a physical gesture or verbal statement of parent approval contingent upon (within 5 seconds) child compliance or appropriate behavior. Inappropriate attention was defined as attention to a child’s inappropriate or noncompliant behavior, such as smiling, laughing, or talking with the child who is engaging in noncompliant or inappropriate behavior, and/or positive attention following compliance gained with physical guidance. Appropriate consequences were individually defined based on an informal functional analysis of each child’s behavior, and included ignoring, time-out, and persistence with prompts to effect compliance.
The child behaviors of interest were compliance and inappropriate behavior. Compliance was defined as the correct completion or initiation toward completion of a verbal or motor response specified by the parent's prompt within 10 seconds of the parents' initial verbal or gestural prompt. Compliance obtained with physical guidance was not coded as compliance. Inappropriate behavior was broadly defined as disruptive, self-injurious, or aggressive behavior, and was individually defined for each child (See the Observers Manual in Appendix C for further definitions and examples).

Measures

Parent's Consumer Satisfaction Questionnaire (PCSQ)

The PCSQ, as presented in Appendix D, was adapted from the work of Forehand and McMahon (1981) and sampled parent satisfaction with the overall program, the therapist, and the difficulty and usefulness of the teaching formats used. Responses were scored on a seven-point Likert-type scale with higher scores indicating greater degrees of satisfaction, ease of understanding, and utility.

Parenting Stress Index (PSI)

The PSI-Short Form (Abidin, 1995), a 36 item parent-report questionnaire, was given to fathers before and after parent training. Answers were scored on a 5 point Likert-type scale, from (1) Strongly agree to (5) Strongly disagree. The scale attempted to assess fathers' perceived level of stress in their role as a parent. The PSI - Short Form has three subscales: Parental Distress, Parent-Child Dysfunctional Interaction, and Difficult Child. In addition, the PSI provides a Total Stress score and has one scale to assess the parent's type of responding, called Defensive Responding. The normative information available on fathers' responses suggest that fathers report lower stress scores overall when compared to mothers, and parents of children with developmental disabilities and mental retardation report higher levels of stress (Abidin, 1995: McKinney &
Peterson, 1987). The normal range of responses fall between the 15th and 80th percentile. The Defensive Responding scale attempts to assess the degree to which parents have a strong bias to present the most favorable impression of himself or herself and to minimize indications of problems or stress in the parent-child relationship. Parents who receive a raw score of 10 or below can typically be described in three ways: one, the parent is invested in presenting a positive picture of their parenting; two, the parent is not invested in their role as a parent and therefore does not experience much stress associated with the role; and three, the parent is very competent in their role and handles stress well. The Total Stress score attempts to provide an indication of the overall level of stress a parent is experiencing in relation to the parenting role. Total Stress scores above the 90th percentile are considered clinically significant. The three subscales assess different aspects of parenting stress. The Parental Distress subscale addresses the amount of distress a parent is experiencing in the parental role as a function of personal factors related to parenting. The Parent-Child Dysfunctional Interaction subscale centers on the parent's perceptions that his child does not meet the parent's expectations, and the interactions with his child are not reinforcing to him as a parent. The Difficult Child subscale draws on some basic behavioral characteristics of children that make them easy or difficult to manage.

**Experimental Design and Procedures**

A multiple baseline across father behaviors was utilized for all participants to evaluate the effects of parent training on fathers' target behaviors (Barlow & Hersen, 1984). Child behaviors (compliance and inappropriate behavior) were also assessed to note concurrent changes. Consistent with multiple baseline strategies, training was directed sequentially and cumulatively to the targeted father behaviors.
Subject 1 Information

Chirs (Pilot)

One father, Robert, and his six year, four month (76 month) old son, Chris, participated in the pilot study. Chris was born prematurely (25 week gestation) with multiple medical complications and Down syndrome. Recent (within the past year) developmental testing using the Bayley Scales of Infant Development, Second Edition resulted in an age equivalent of 11 months; moderate to severe delays in adaptive skills were also noted on the Vineland Adaptive Behavior Scales. (Adaptive Behavior Composite score of 35). Chris attended a non-graded class for children with developmental disabilities at a school in Wake County. Written, informed consent was obtained from Robert regarding his own participation and the participation of his son. Inducement for participation consisted of the benefits of receiving free treatment for managing behavior problems encountered in children with developmental delays and learning techniques to teach self-help skills. Robert refused to accept the $50 remuneration. Demographic characteristics of all participants may be found in Table 2.

Recording and Reliability

The first target behavior for Robert was correct instructions, and included two main criteria: 1) clear wording of the instructions and 2) sequencing of instruction giving while allowing for compliance. Sequencing of instruction giving consisted of the instructional prompts of “Tell me”, “Show me”, “Guide me” (Baker & Brightman, 1989), also called verbal prompt, verbal/gestural prompt, and verbal/physical guidance prompt (previously defined). The time period to allow for compliance was defined as a 10-second pause following the verbal and verbal/gestural prompt. After compliance at any level, the correct sequence denoted a return to the verbal prompt level.

A ratio of correct prompts (verbal, verbal/gestural, verbal/physical guidance) to total prompts (correct prompts plus all incorrect prompts) was
Table 2

Demographic Characteristics of Participants

<table>
<thead>
<tr>
<th></th>
<th>Chris (Pilot)</th>
<th>Jimmy</th>
<th>Travis</th>
<th>Edward</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Child's Age</strong></td>
<td>6 yr., 4 mo.</td>
<td>2 yr., 10 mo.</td>
<td>3 yr., 1 mo.</td>
<td>4 yr., 5 mo.</td>
</tr>
<tr>
<td><strong>Race</strong></td>
<td>White</td>
<td>White</td>
<td>Black</td>
<td>White</td>
</tr>
<tr>
<td><strong>Sex</strong></td>
<td>Male</td>
<td>Male</td>
<td>Male</td>
<td>Male</td>
</tr>
<tr>
<td><strong>Siblings</strong></td>
<td>Sister, age 3</td>
<td>Sister, age 4</td>
<td>Brother, age 17</td>
<td>Sister, age 7</td>
</tr>
<tr>
<td><strong>Parents'</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Marital Status</strong></td>
<td>Married</td>
<td>Married</td>
<td>Married</td>
<td>Married</td>
</tr>
<tr>
<td><strong>Family Income</strong></td>
<td>50,000 or above</td>
<td>50,000 or above</td>
<td>30,000-34,999</td>
<td>50,000 or above</td>
</tr>
<tr>
<td><strong>Mother: Age</strong></td>
<td>30-39</td>
<td>20-29</td>
<td>40-49</td>
<td>30-39</td>
</tr>
<tr>
<td><strong>Education</strong></td>
<td>College + Training</td>
<td>Some College</td>
<td>Some College</td>
<td>College Grad.</td>
</tr>
<tr>
<td><strong>Employment</strong></td>
<td>Registered Nurse</td>
<td>Homemaker</td>
<td>Receptionist</td>
<td>Full Time Mom</td>
</tr>
<tr>
<td><strong>Father: Age</strong></td>
<td>30-39</td>
<td>30-39</td>
<td>30-39</td>
<td>40-49</td>
</tr>
<tr>
<td><strong>Education</strong></td>
<td>College Grad.</td>
<td>Ph.D.</td>
<td>Some College</td>
<td>College Grad.</td>
</tr>
<tr>
<td><strong>Employment</strong></td>
<td>Computer Analyst</td>
<td>Engineer</td>
<td>Retired Navy</td>
<td>Engineer</td>
</tr>
<tr>
<td><strong>Hollingshead</strong></td>
<td>Level I</td>
<td>Level I</td>
<td>Level II</td>
<td>Level I</td>
</tr>
</tbody>
</table>
calculated. For the pilot, the ratio of correct prompts included only those prompts that met both criteria of clear wording and sequencing. A review of the data indicated that teaching both criteria (how to word prompts and how to sequence prompts) together was too cumbersome and with additional participants was taught separately.

The second target behavior for Robert was appropriate positive attention. In addition, inappropriate attention was also coded. Two types of inappropriate attention were recorded: attention following physical guidance and attention to inappropriate behavior. This information was useful in tailoring the parent training sessions for Robert's individual needs.

Chris did not consistently exhibit inappropriate behavior, although several negative behaviors were noted during the intake assessment. However, Robert noted an increase in head hitting and hand mouthing around the time that the school year ended and summer began. An informal functional analysis was conducted to assess the maintaining variables for Chris' head hitting and hand mouthing. The behavior occurred more often during unstructured or free-play times. Although social attention occasionally followed the behavior, Chris more frequently exhibited the behavior when he was alone, when he was not actively engaged in another activity, and when social attention did not follow. His increase in the behavior coincided with the beginning of summer, which translated into long periods of unscheduled time for Chris. After consultation with the family and an informal functional analysis, it was decided to treat the inappropriate behavior by providing enriched environmental opportunities and differential reinforcement for other appropriate behavior. In addition, a brief time-out for head hitting was utilized. Chris' inappropriate behavior decreased around the time both his summer routine and interventions for inappropriate behavior were established.
Interobserver Agreement. A second rater simultaneously but independently record data during 58% (11 of 19) of the sessions. Agreement was scored when both raters recorded a behavior identically in the same interval and was scored on an interval by interval basis for each of the 14 coded behaviors. Interobserver percent agreement was calculated by dividing the number of agreements by the number of agreements plus disagreements and multiplying by 100%. Interval agreement for Chris’ sessions ranged from 87% to 100%; mean agreements by behavior across sessions are presented in Table 1.

Experimental Design and Procedures

A multiple baseline across father behaviors was utilized to evaluate the effects of parent training on Robert’s instruction giving and positive attention (Barlow & Hersen, 1984). Consistent with multiple baseline strategies, training was directed sequentially and cumulatively to the targeted father behaviors. Specifically, during the first phase of treatment, attention was directed towards increasing the percentage of correct instructions given. As noted previously, for Robert, correct instruction giving was defined as clear wording of prompts, given in sequence and allowing for compliance. In the second phase, the primary focus was increasing the percentage of appropriate positive attention to child compliance, with attention directed to maintaining changes in the first behavior. The low to zero rate of Chris’ inappropriate behavior did not allow for a third phase, teaching contingent consequences. Although child behaviors were not specifically targeted for treatment, compliance was coded for Chris in order to note any concurrent changes in child behavior.

Parent Intake Interview. The initial interview took place in the parents’ home. Demographic information, developmental history, and family background were obtained. Based on information gathered during the interview.
the skills chosen for Chris were cleaning up toys, brushing his teeth, taking off his clothes, and putting on his pajamas.

**Baseline.** Robert was instructed to teach Chris the self-help tasks identified during the intake interview, using whatever means he felt appropriate. Raters coded father and child behaviors for 10 minutes. Baseline sessions were conducted until a stable or descending rate of appropriate responding was achieved.

**Phase I: Teaching how to give instructions.** Robert was taught how to give clear correct prompts in the correct sequence. Methods of training included verbal instructions, written materials, role-plays, practice, and performance feedback. Following each training session, Robert was observed and videotaped instructing Chris in a variety of self-help tasks.

**Phase II: Teaching how to correctly use positive attention.** Robert was taught how to correctly use positive attention following compliance. Again, methods of training included verbal instructions, written materials, role-plays, practice, and performance feedback. Following each training session, Robert was observed and videotaped.

**Subject 2 Information**

**Jimmy**

Norman contacted the experimenter after receiving a letter sent home from his daughter's classroom in the Wake County School system. He and his wife were interested in increasing his involvement with their children's management. Norman initially intended to participate in the study with his daughter, who had been diagnosed with autism. However since autism was an exclusion criteria and his son also had developmental delays, he agreed to participate with his son, Jimmy. Jimmy had received a multidisciplinary evaluation at the chronological age of 24 months, and significant delays in
cognitive and adaptive behavior were noted, with scattered skills from 8 to 22 months. Developmental testing using the Bayley Scales of Infant Development, Second Edition resulted in an age equivalent of 19 months and an Mental Development Index (MDI) of 62; similar delays in adaptive skills were noted on the Vineland Adaptive Behavior Scales (age equivalent of 14 months, Adaptive Behavior Composite of 66). Written, informed consent was obtained and inducements given (free treatment for managing behavior problems, learning techniques to teach self-help skills, and $50 remuneration). Demographic characteristics of all participants may be found in Table 2.

Recording and Reliability

Observational sessions with Jimmy and additional subjects were not videotaped; all coding of behavior was conducted in vivo. A review of the data from the first subject, Chris, indicated that teaching both wording and sequence of instructions in Phase I was too cumbersome. Consequently, correct wording of instructions was targeted prior to teaching the instructional sequence. Attempts to teach sequencing were largely unsuccessful, primarily due to the nature of the tasks being taught. In addition, due to the infrequency of verbal gestural and verbal physical guidance prompts, reliability was difficult to attain. Therefore, teaching the sequence of prompts as a target behavior was disregarded for this and future subjects.

Inappropriate behavior for Jimmy was specifically defined as whining, crying, running away from his father, and repeatedly saying “No.” Inappropriate attention for Norman was specifically defined as attention following inappropriate behavior (e.g., giving him more attention for whining, saying “Yes” each time Jimmy said “No”). Appropriate consequences were specifically defined as planned ignoring, continuation with instructions if necessary, and time-out.
Interobserver Agreement. Interobserver agreement was collected during 46% (12 of 26) of the sessions. Interval agreement for Jimmy’s sessions ranged from 85% to 100%, with a mean of 96%; mean agreements by behavior across sessions are presented in Table 1.

Experimental Design and Procedures

A multiple baseline across father behaviors was utilized to evaluate the effects of parent training on Norman’s instruction giving, positive attention, and appropriate consequences (Barlow & Hersen, 1984). During the first phase of treatment, attention was directed towards increasing the percentage of correct instructions given. As noted previously, for Norman, correct instruction giving was defined as the correct wording of prompts. Although the correct sequence of instructions was targeted following successful training of the wording of instructions, the infrequency of opportunities to naturally use the instructional sequence precluded successful training of the instructional sequence. Therefore in the second phase, two target behaviors were the primary focus, e.g., increasing the percentage of appropriate positive attention to compliant and appropriate behavior and increasing the percentage of appropriate consequences to inappropriate and noncompliant behavior, with attention directed to maintaining changes in the first behavior. Although child behaviors were not specifically targeted for treatment, compliance and inappropriate behavior were coded for Jimmy to monitor concurrent changes in child behavior.

Parent Intake Interview. The initial interview took place at the father’s office, and a second interview took place in the parents’ home. Demographic information, developmental history, and family background were obtained. Based on information gathered during the intake interview, the skills chosen for Jimmy were cleaning up toys, following simple commands, drinking from a cup, eating with a fork, brushing his teeth, taking off his clothes, and putting on his
pajamas. Target behaviors for Norman were correct instruction giving, appropriate positive attention, and contingent consequences following inappropriate child behavior.

**Baseline.** Norman was instructed to teach Jimmy the self-help tasks identified during the intake interview, using whatever means he felt appropriate. Raters coded father and child behaviors for 10 minutes per session. Baseline sessions were conducted until a stable or descending rate of appropriate responding was achieved.

**Phase I: Teaching how to give instructions.** Norman was taught how to give correct instructions. During baseline Jimmy's father primarily used 'don't' commands, 'indirect' commands, 'question' commands, and repeated instructions; he used few instructions with the correct wording. Methods of training included verbal instructions, written materials, role-plays, practice, and performance feedback. Following each training session, Norman was observed instructing Jimmy in a variety of self-help tasks.

**Phase II: Teaching how to correctly use positive attention and contingent consequences.** Norman was taught how to correctly use positive attention following compliance and how to appropriately use consequences following inappropriate or noncompliant behavior. Prior to training, Norman frequently attended to Jimmy's inappropriate behavior and ignored his compliant and appropriate behavior. Appropriate consequences taught were planned ignoring of minor inappropriate behavior, continuation with instructions following initial noncompliance, and time-out for continued noncompliance and dangerous behavior. Again, methods of training included verbal instructions, written materials, role-plays, practice, and performance feedback. Following each training session, Norman was observed for 10 minutes while instructing Jimmy in the identified skills.
Subject 3 Information

Travis

Randy contacted the experimenter after receiving a letter given to him at his son’s Individualized Educational Program (IEP) meeting with the Wake County school system. Travis, three years, one month old, had an unexplained history of infantile seizures from about 3 months to 16 months of age. He had received developmental testing in another state and qualified for the school classification of Preschool Developmentally Delayed (scores were not available). Randy and his family had recently moved to the state, and Randy had recently retired from military service. Travis was enrolled in a Preschool Developmentally Delayed classroom in the mornings, and in a regular daycare in the afternoons. Travis’ mother worked during the day; Randy took his son to and from school and daycare. Written, informed consent was obtained and inducements given.

Demographic characteristics of all participants may be found in Table 2.

Recording and Reliability

All coding of behavior was conducted in vivo in the family’s home. At the time of the study, the family was living in a two bedroom apartment. While waiting for classes to begin in the next semester, Randy was primarily focusing on his own parenting and how to help Travis ‘catch-up’ with his language and readiness skills. He carefully read all the instructional materials and asked pertinent questions about his participation and his wife’s role. Sessions were held regularly twice a week, with the exception of snow delays and Christmas and New Year’s holidays.

Target behaviors for Randy consisted of clear instructions, correct positive attention, and appropriate consequences. Inappropriate behavior for Travis was specifically defined as running out of the room, running away from his father and hiding, throwing toys, and screaming. Inappropriate attention for
Randy was specifically defined as attention following inappropriate behavior, e.g., laughing at Travis when he ran away, laughing when he failed to comply, and smiling and saying things such as “come on buddy” while trying to get Travis to do something. Appropriate consequences were specifically defined as planned ignoring, continuation with instructions if necessary, and time-out.

**Interobserver Agreement.** Due to the limited space in the apartment, observers were very noticeable. A considerable amount of reactivity to a second observer (third stranger) was noted. The experimenter did not serve as an observer; therefore only a limited number of sessions were conducted with two observers. Interobserver agreement was assessed during 18% (3 of 16) of the sessions. Interval agreement for Travis’ sessions ranged from 88% to 100%, with a mean of 97%; mean agreements by behavior across sessions are presented in Table 1.

**Experimental Design and Procedures**

A multiple baseline across father behaviors was utilized to evaluate the effects of parent training on Randy’s clear instructions, positive attention, and appropriate consequences (Barlow & Hersen, 1984). As with previous subjects, attention was directed towards each target behavior in a sequential manner.

**Parent Intake Interview.** The initial interview took place in the home. Demographic information, developmental history, and family background were obtained. Based on information gathered during the intake interview, the skills chosen for Travis were following simple commands, eating with a fork, brushing his teeth, putting on shoes and socks, identifying and labeling objects, taking off his clothes, and putting on his pajamas. Target behaviors for Randy were correct instruction giving, appropriate positive attention, and contingent consequences following inappropriate child behavior.
Baseline. Randy was instructed to teach Travis the skills identified during the intake interview, using whatever means he felt appropriate. Raters coded father and child behaviors for 10 minutes per session. Baseline sessions were conducted until a stable or descending rate of appropriate responding was achieved.

Phase I: Teaching how to give clear instructions. Randy was taught how to give correct instructions. During baseline Travis’ father primarily used ‘question’ commands, vague ‘incorrect’ commands, and frequently repeated instructions; he used few clear concise instructions. Methods of training included verbal instructions, written materials, role-plays, practice, and performance feedback. Following each training session, Randy was observed instructing Travis in a variety of self-help tasks and skills.

Phase II: Teaching how to correctly use positive attention. Randy was taught how to correctly use positive attention following compliance and appropriate behavior. Prior to training in positive attention, Randy rarely used positive attention for compliance of simple commands or when teaching a skill. Again, methods of training included verbal instructions, written materials, role-plays, practice, and performance feedback. Following each training session, Randy was observed for 10 minutes while instructing Travis in the identified skills.

Phase III: Teaching how to correctly use contingent consequences for inappropriate or noncompliant behavior. Prior to training in appropriate consequences, Randy often smiled or laughed at Travis’ minor inappropriate behavior and raised his voice and repeated instructions for disruptive behavior, such as throwing toys or hitting. Randy was taught planned ignoring of Travis’ minor inappropriate behavior, using instructions with gestures and physical guidance to gain compliance from Travis, and time-out for disruptive behavior.
such as throwing toys or hitting. Again, methods of training included verbal instructions, written materials, role-plays, practice, and performance feedback. Following each training session, Randy was observed for 10 minutes while instructing Travis in the identified skills.

**Subject 4 Information**

**Edward**

Edward previously received a multidisciplinary evaluation at a local state agency. His father, Peter, was contacted by a professional from the agency regarding participation in the study. Peter agreed to allow the experimenter to contact him personally, and was given a parent recruitment letter and a copy of the informed consent form to review. The experimenter agreed to target independent toileting among other skills, and the family decided to participate. Edward received a multidisciplinary evaluation at the chronological age of 34 months, and significant delays in cognitive and adaptive behavior were noted. Developmental testing using the *Bayley Scales of Infant Development, Second Edition* resulted in an age equivalent of 17 months and an Mental Development Index (MDI) of less than 50; similar delays in adaptive skills were noted on the *Vineland Adaptive Behavior Scales* (age equivalent of 20 months, Adaptive Behavior Composite score of 66). Written, informed consent was obtained and inducements given. Demographic characteristics of all participants may be found in Table 2.

**Recording and Reliability**

All coding of behavior was conducted in vivo in the family’s home. Sessions were generally held on Saturday mornings when Edward’s mother and sister were at swim lessons and on Tuesday evenings while Edward’s mother and sister spent time upstairs.

Target behaviors for Peter consisted of clear correct instructions, correct positive attention, and appropriate consequences. Inappropriate
behavior for Edward was specifically defined as running out of the room, whining and crying, and grabbing at toys or objects that were 'off-limits'. Inappropriate attention for Peter was specifically defined as attention following inappropriate behavior, e.g., attempting to reason with Edward when he whined, calling his name and repeating directions when he ran out of the room. Appropriate consequences were specifically defined as planned ignoring, continuation with instructions if necessary, and time-out.

Interobserver Agreement. Interobserver agreement was assessed during 23% (5 of 22) of the sessions. Interval agreement for Edward’s sessions ranged from 85% to 100%, with a mean of 97%; mean agreements by behavior across sessions are presented in Table 1.

Experimental Design and Procedures

A multiple baseline across father behaviors was utilized to evaluate the effects of parent training on Randy’s clear instructions, positive attention, and appropriate consequences (Barlow & Hersen, 1984). As with previous subjects, attention was directed towards each target behavior in a sequential manner.

Parent Intake Interview. The initial interview took place in the home. Demographic information, developmental history, and family background were obtained. Based on information gathered during the intake interview, the skills chosen for Edward were coming when called, following simple directions, removing pants, sitting on the toilet, pulling up pants, washing hands, brushing his teeth, putting on shoes and socks, and riding a tricycle. Target behaviors for Randy were clear correct instructions, appropriate positive attention, and contingent consequences following inappropriate child behavior.

Baseline. Peter was instructed to teach Edward the skills identified during the intake interview, using whatever means he felt appropriate. Raters coded father and child behaviors for 10 minutes per session. Baseline sessions
were conducted until a stable or descending rate of appropriate responding was achieved.

**Phase I: Teaching how to give instructions.** Peter was taught how to give correct instructions. During baseline Edward's father primarily used 'question' commands, vague 'incorrect' commands, and repeated instructions; he used few clear concise instructions. Methods of training included verbal instructions, written materials, role-plays, practice, and performance feedback. Following each training session, Peter was observed instructing Edward in a variety of self-help tasks and skills.

**Phase II: Teaching how to correctly use positive attention.** Peter was taught how to correctly use positive attention following compliance and appropriate behavior. Prior to training in this area, Peter infrequently used positive attention for compliance of simple commands or when teaching a skill. Again, methods of training included verbal instructions, written materials, role-plays, practice and performance feedback. Following each training session, Peter was observed for 10 minutes while instructing Edward in the identified skills.

**Phase III: Teaching how to correctly use contingent consequences for inappropriate or noncompliant behavior.** Peter was taught planned ignoring of Edward's minor inappropriate behavior, using instructions with gestures and physical guidance to gain compliance from Edward, and time-out for inappropriate behavior, such as running into the street. Again, methods of training included verbal instructions, written materials, role-plays, practice, and performance feedback. Following each training session, Peter was observed for 10 minutes while instructing Edward in the identified skills.
RESULTS

Figures 1 through 4 show the effects of parent training on the fathers' correct target behaviors (i.e., clear instructions, positive attention, consequences). Before training, each father displayed low levels of the first target behavior, correct instructions (a mean of 35, 37, 31, and 41 percent correct, respectively). When the first training phase for correct instructions was implemented, Chris', Jimmy's, Travis', and Edward's fathers increased their correct instructions to an average of 78, 84, 81, and 85 percent, respectively. Correct instruction levels showed a stable and consistent increase following the implementation of training.

Figure 1 shows the effects of parent training on Chris' father's clear correct instructions and instructional sequence, as well as correct positive attention. Prior to Phase II training, Chris' father showed a variable rate of correct use of positive attention (range from 27 to 88 percent, with a mean of 60 percent). Following training on positive attention, Chris' father demonstrated consistently high (mean of 88 percent) rates of correct positive attention.

Figures 2 through 4 show the effects of parent training on Jimmy's, Travis', and Edward's fathers' correct use of positive attention. Prior to training, all three fathers demonstrated a low rate of correct positive attention (a mean of 18, 18, and 27 percent respectively). Following training, their rates increased to a mean of 73, 83, and 80 percent, respectively. Figure 2 (Jimmy) shows a stable increase in correct use of positive attention following training, with the last five sessions showing consistent rates at or above 80 percent. Figure 3 (Travis) shows an immediate and consistent increase in correct positive attention. Travis' father increased his correct use of positive attention immediately following training, and continued at a high rate for the remainder of treatment. Edward's father, as noted in Figure 4, showed a slow but stable
Figure 1.
Figure 2.
Figure 3.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.
Figure 4.
increase in correct use of positive attention, with the last seven sessions approximating the mean rate (80%) for that condition.

Figures 2 through 4 show the effects of parent training on Jimmy's, Travis', and Edward's fathers' correct use of consequences. As noted in Figure 2, prior to training Jimmy's father demonstrated sporadic use of consequences to inappropriate child behavior; on one occasion (session 8) Jimmy did not exhibit inappropriate behavior resulting in no opportunity for correct use of consequences during that session. Prior to Phase II, his use of correct consequences averaged 27 percent. Phase II training for Jimmy's father targeted correct use of both positive attention and consequences. Following training his correct use of consequences increased to an average of 88 percent. Furthermore, Jimmy's father increased his use of correct consequences to 100 percent on four out of the last six sessions. Again, on one occasion (session 19) Jimmy did not exhibit inappropriate behavior resulting in no opportunity for correct use of consequences during that session. Figures 3 and 4 (Travis and Edward) show an immediate and consistent increase in correct use of consequences following Phase III training. Travis' and Edward's fathers averaged 11 and 2 percent correct use of consequences prior to training, and 88 and 98 percent following training, respectively. Travis and Edward also had sessions without inappropriate behavior (sessions 7 and 15 for Travis and session 17 for Edward) resulting in no opportunity for correct use of consequences.

Figures 5 and 6 denote the concurrent changes in child compliance during training. As noted in Figure 5, Chris' percentage of compliance to all commands varied only slightly during training (mean of 30% compliance during baseline, mean of 28% during Phase I); however, a modest increase in
CHILD COMPLIANCE TO FATHER’S COMMANDS

CHRIS

Baseline | Phase I | Phase II

% Compliance to all commands

Sessions

x = 30

x = 28

x = 39

JIMMY

Baseline | Phase I | Phase II

% Compliance to all commands

Sessions

x = 48

x = 44

x = 15

Figure 5.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.
CHILD COMPLIANCE TO FATHER’S COMMANDS

TRAVIS

Baseline | Phase I | Phase II | Phase III

% Compliance to all commands

Sessions

Baseline | Phase I | Phase II | Phase III

EDWARD

% Compliance to all commands

Sessions

Figure 6.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.
compliance was observed near the end of training (mean of 39% during Phase II). Jimmy’s level of compliance changed more drastically as his rate of compliance rose from 15% during baseline to 48% during Phase I and 44% during Phase II. Figure 6 depicts Travis and Edward’s rate of compliance. Travis demonstrated an increase in compliance (9% during baseline, 36% in Phase I, 34% in Phase II, and 48% in Phase II), as did Edward (22% during baseline, 43% in Phase I, 47% in Phase II, 43% in Phase III).

Results from the Parent’s Consumer Satisfaction Questionnaire indicate that overall fathers rated the program moderately high. On a 7 point Likert scale with higher numbers reflecting greater satisfaction, they rated the overall program as a 5.5, 5.7, 6.9, and 5.5 and rated the therapist as a 7, 6.2, 7, and 6.8. The difficulty of the teaching methods were rated as follows: written materials 4, 6, 6, 4; explanation of written materials: 6, 6, 7, 5; demonstration of skills by therapist: 7, 6, 7, 6. The usefulness of the teaching methods were rated as follows: written materials: 3, 5, 7, 4; explanation of written materials: 5, 5, 7, 5; demonstration of skills by the therapist: 7, 7, 7, 7.

Fathers completed the Parenting Stress Index-Short Form (PSI/SF) before and after training. The PSI/SF has three subscales: Parental Distress, Parent-Child Dysfunctional Interaction, and Difficult Child. In addition, the PSI/SF provides a Total Stress score and has one scale to assess the parent’s type of responding, called Defensive Responding.

The fathers’ percentile ranks in the three subscales, the Total Stress scores, and the raw scores of the Defensive Responding scale are presented in Table 3. The first two fathers, of Chris and Jimmy, reported high levels of stress both before and after training. Also, neither father responded in a manner that suggested they were defensive about their answers. Travis’ father reported decreased levels of overall stress, parental distress, and decreased
Table 3

Scores on the Parenting Stress Index (PSI)-Short Form

<table>
<thead>
<tr>
<th>PSI Domain</th>
<th>Total Stress Score</th>
<th>Parental Distress</th>
<th>Parent-Child Dysfunctional Interaction</th>
<th>Difficult Child</th>
<th>Defensive Responding (raw score)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child</td>
<td>Pre</td>
<td>Post</td>
<td>Pre</td>
<td>Post</td>
<td>Pre</td>
</tr>
<tr>
<td>Chris</td>
<td>99%</td>
<td>99%</td>
<td>85%</td>
<td>85%</td>
<td>99%</td>
</tr>
<tr>
<td>Jimmy</td>
<td>95%</td>
<td>99%</td>
<td>65%</td>
<td>75%</td>
<td>99%</td>
</tr>
<tr>
<td>Travis</td>
<td>45%</td>
<td>15%</td>
<td>20%</td>
<td>15%</td>
<td>20%</td>
</tr>
<tr>
<td>Edward</td>
<td>95%</td>
<td>85%</td>
<td>80%</td>
<td>65%</td>
<td>95%</td>
</tr>
</tbody>
</table>

perceptions of the difficulty of his child; in addition, his defensive responding score at post-test (raw score of 7) fell below the cut-off (raw score of 10 or below) indicating he may have been invested in presenting a positive picture or he may have felt greater competence and hence less stress as a parent. Edward's father reported decreased levels of overall stress, parental distress, parent-child dysfunctional interaction, and decreased perceptions of the difficulty of his child. His score on the Defensive Responding scale did not indicate he was answering in a defensive manner.
DISCUSSION

This study adds a new dimension to the behavioral parent training literature by demonstrating that fathers can effectively change their parenting behavior. As depicted on the graphs, parent training was successful for changing father behavior. All four fathers increased their use of correct instructions and positive attention, and the three fathers who were taught appropriate consequences increased their correct use of consequences. The same techniques used in previous research to train mothers as intervention agents were used with fathers; results were comparable to those obtained in previous studies with mothers. As expected, parent training was effective for changing fathers' behaviors towards their children.

Parent training resulted in desired increases in use of the target behaviors (correct instructions, positive attention, and appropriate consequences). However the length of training and number of training sessions differed depending on the individual needs of the family, and ranged from 16 to 26 sessions. The fathers of Chris, Jimmy, and Edward, each spent approximately three months participating in the study. At the time of the study, Travis’ father was primarily concentrating on how he could help his son overcome his developmental delays and learn new skills; he was not working outside the home. Therefore, it is not surprising that only 16 sessions (approximately 2 months) were needed to teach him correct instructions, positive attention, and consequences to inappropriate behavior.

Child behavior was not the target of this study, although changes in levels of child compliance were noted. This variable has been studied many times before (Budd, Green, & Baer, 1976; Van Hasselt et al., 1987; Whitman, Johnson, & Barloon-Noble, 1978). Nonetheless, the first subject, Chris, did not exhibit much change in his level of compliance, with the exception of the last
session. Of the four subjects, Chris presented with the greatest cognitive delays; therefore it is not surprising that changes in his behavior were slow to evolve. In addition, due to Chris’ lack of inappropriate behavior, appropriate consequences were not targeted for training. Teaching his father appropriate consequences for inappropriate or noncompliant behavior may have also affected Chris’ rate of compliance. In a study by Whitman, Johnson, and Barloon-Noble (1978), parents were trained to use positive attention and time-out procedures to address the noncompliant and ‘autistic’ behaviors of their four year old daughter. The use of both procedures resulted in substantial improvement in child compliance to instructions. Unfortunately, the separate effects of positive attention and time-out on compliance were not examined, and conclusions about the effectiveness of each procedure to increase compliance cannot be made. However in a study by Budd, Green, and Baer (1976) described earlier, a multiple baseline across mother behaviors was used to evaluate parent training with a mother and her three year old daughter, allowing the effects of each parent training procedure on child compliance and inappropriate behavior to be noted. Teaching consequences (time-out) for inappropriate or noncompliance behavior resulted in substantial changes in child compliance. Johnson, Whitman, and Barloon-Noble (1978) taught both positive attention and time-out resulting in substantial improvements in compliance. In contrast, in a similar study Van Hasselt and colleagues (1987) observed improvement in compliance with commands following training on definitive commands (clear instructions); additional training on positive attention resulted in no additional effects. Consequences for noncompliant or inappropriate behavior were not addressed.

Jimmy and Edward demonstrated similar changes in their level of compliance; each made modest increases in compliance following the
introduction of training on clear, correct instructions; further training of father behavior did not affect their level of compliance. These data are consistent with Van Hasselt et al. (1987), where compliance was most affected by training of clear, definitive commands. Although Travis increased his compliance following the introduction of training on clear instructions, he further increased his compliance following training on appropriate consequences. These data are consistent with the study by Budd, Green, and Baer (1976), where training on time-out effected the greatest change in rates of inappropriate behavior.

One aspect of the study, subject recruitment, deserves mention. Although various attempts were made to reach fathers, subject recruitment remained difficult. Possibly the time demands of the study were too great for fathers who were working full time (Presser, 1988). One of the four participants in this study had recently retired and was concentrating on his son while awaiting classes to start in the next semester. Indeed, travel schedules of two of the participants made consistent training sessions more difficult. Possibly fathers of children with developmental delays were less ready to ask for help (McConachie, 1982). Even though children with cognitive delays were targeted for subject recruitment, three fathers of intellectually normal children were interested in participating; two had children with Attention Deficit Hyperactivity Disorder, and one had a child with visual impairments. In addition, one father of a child with autism was interested in the study. In sum, even though fathers of children with developmental disabilities were targeted for recruitment, for whatever reasons few fathers of children with developmental disabilities agreed to participate.

A considerable literature has shown that mothers can be effective change agents for their children (Breiner & Beck, 1984; Van Hasselt, Sisson, & Aach, 1987; Budd, Green, & Baer, 1976; Cordisco, Strain, & Depew, 1988;
Moore & Bailey, 1973). The current study extended previous literature in two ways. One, the study demonstrated that fathers can also learn child management techniques. In the past, the majority of researchers have neglected fathers in families with and without developmentally delayed children (May, 1991; Meyer, 1986). Two, the training and observations were conducted in the home. In the study by Van Hasselt and colleagues (1987), a multiple baseline across mother behaviors was utilized; the mother was taught how to give clear commands, positive attention, and persist with commands when necessary. However training took place in a clinic setting, not the home, and generalization to the home setting was not addressed. Budd and colleagues (1976) used a multiple baseline across mother behaviors and demonstrated that a mother could be taught how to give instructions, use physical guidance to gain compliance, and use time-out. Unfortunately a lengthy training was required; sessions were conducted in a clinic setting five days a week for a total of 106 sessions in a five month period. The current study yielded similar results in terms of parental behavior change, but the longest training time was three months and 26 sessions.

Results of this study are consistent with the outcome of an earlier study by Adubato, Adams, and Budd (1981), where the effects of a mother training her spouse in child management techniques were evaluated. The therapist conducted training for the mother, who then conducted training for her spouse. The parent behaviors targeted for change consisted of increasing appropriate instructions, using physical guidance to ensure compliance, using partial guidance when possible to allow more independent compliance, and reducing parents’ preempts (parent completes step for child with no child participation) by allowing the child to attempt all steps of the task on his own. Significant positive changes occurred in both parents’ behaviors after training.
The current study builds upon the work of Adubato and colleagues (1981) in that all training and observation sessions were conducted in the home. In the earlier study, all probe sessions were conducted in a clinic setting, and training sessions were conducted either at home or in the same clinic setting (Adubato et al., 1981). The number of training sessions conducted in each setting was not reported. Parents may have been more likely to use the techniques learned when in the clinic setting. However, since no observations were made in the home, such a comparison is not possible. As noted previously, most of a child's behavior is learned and maintained in the home environment, and therefore behaviors that are learned in a clinic setting may not be maintained once in the home (Berkowitz & Graziano, 1972). In addition, generalization and maintenance are thought to be more likely when treatment is conducted in the home, and training is targeted to include generalization (Cordisco, Strain, & Depew, 1988; Moran & Whitman, 1991). Furthermore, in the current study four fathers participated as the primary subjects, and each was presented with an individualized program. The experimental design, a multiple baseline across father behaviors, allowed for each subject to provide its own control. Therefore the replication of the positive results across all four subjects provides additional support for parent training as a means to change fathers' behaviors towards their children.

These data support existing research demonstrating the advantages of individualized parent training (Cunningham, 1985; Graziano & Diament, 1992). Cunningham (1985) noted that compared with a general parent training program, an individualized program allows greater contact time with parents, and increased ability to meet individual needs. Other researchers have suggested that parents of children with mental retardation do not benefit from general behavioral training, but that individualized and highly specific action
oriented training is more effective in producing parent change (Graziano & Diament, 1992). Indeed, the individualized nature of the parent training may have contributed to the change in the four fathers’ behavior.

Researchers have addressed factors related to success in parent training. Predictors of success include SES, income, and mother’s education (Clark, Baker, & Heifetz, 1982; Wahler, 1980), prior knowledge and experience (Clark & Baker, 1983; Cunningham, 1985), and marital relationship and support (Patterson, 1974; Wahler, 1980). Several of these factors likely contributed to the success of the present study. During the initial interview, all participants in the study expressed their interest in the study and desire to learn child management techniques. In addition, the participants voluntarily agreed to participate knowing the potential length of training and the time commitment expected. Likewise, marital discord was not observed, education levels ranged from some college to a doctoral degree, and each family received an individualized program and attention to practical issues.

In general, ratings on the Parent’s Consumer Satisfaction Questionnaire (PCSQ) indicated that the four fathers who participated were very satisfied with the program. In addition the fathers stated that they enjoyed spending time with their child. One father commented on the PCSQ, “My son and I have benefited from this research more than you will ever know”. Another stated, “This was one of the most enjoyable experiences with my son ... there is no question that this experience has made a difference in his life”. Previous research on fathers indicated a lack of skills or self-confidence, rather than a lack of interest or motivation, may often be responsible for the limited involvement of some fathers (Lamb, 1986).

Furthermore, professionals may neglect to include fathers when conducting training with mothers. One study described earlier addressed the
effects of training mothers in six child development areas, and the collateral effects on fathers before and after their wives received training (Sandler, Corehn, & Thurman, 1983). With child improvement, mothers tended to express more positive attitudes while fathers tended to express more negative attitudes. Sandler and colleagues suggested that as a result of the intervention, mothers spent more time with their children, and less time with their spouses (1983). Therefore when conducting training with mothers only, professionals may inadvertently weaken the relationship between spouses who already have the stress of a handicapped child. The positive response the fathers in this study gave regarding their participation supports previous researchers' suggestions to include fathers when conducting parent training (Adubato, Adams, & Budd, 1981; Kelley, Embry, & Baer, 1979; Sandler, Corehn, & Thurman, 1983; Webster-Stratton, 1985).

The experimenter generally received positive feedback about this area of research and its social desirability. Such research is greatly needed to help broaden our understanding of parents of children with special needs and of ways to best meet their service needs. The four families who participated greatly welcomed having a professional in their home. However many families may have chosen not to participate partly due to a reluctance to have someone come into their home. Professionals today should be aware of the changing needs of families with developmentally delayed children (Levine, 1993). Many programs that currently exist exclude fathers by their conceptualization and delivery of services (May, 1991). For example, training materials may not include fathers in child care, professionals may not create opportunities for fathers to be involved, or may offer services at times when only mothers are more likely to attend. May (1991) compared the failure to involve all family members in treatment to attempting car repair with a few engine parts missing.
He noted that with luck, the car may make it down the road, but will ultimately either function very inefficiently or break down altogether. At the same time, professionals should keep in mind that no minimum threshold of optimum involvement has been set; thus, each family likely defines their own structure (Levine, 1993). All of these changes in the family impact how professionals can best serve the children and their parents.

The societal trend is moving toward greater father involvement (Lamb, 1986). More frequently both parents are working to provide for the family, which may result in mother spending less time with the children. If fathers do not compensate by increasing father-child time, the final result may have a detrimental effect on the children (Garbarino, 1993). Furthermore, increased father participation has had benefits for the child, father, and mother (Furstenberg & Harris, 1993; Willoughby & Glidden, 1995).

One notable finding of the study is the fathers’ responses to the Parenting Stress Index - Short Form (PSI/SF; Abidin, 1995). As noted previously, Chris presented with the greatest cognitive delays so his father’s responses on the PSI are not surprising. Chris’ father did not report any changes on the PSI from pre-test to post-test; he consistently reported high levels of perceived stress. His Total Stress score (99%) reflects stresses in the areas of personal parental distress, stresses derived from his interactions with his child, and stresses that result from the child’s behavioral characteristics.

Jimmy’s father also reported high levels of stress (Total Stress scores of 95% and 99%), although the Parental Distress scale fell within the normal range at both pre-test and post-test. This suggests that Jimmy’s father felt a sense of parenting competence and sufficient social support. Travis’ father answered in a manner that suggested he was invested in presenting a positive picture, and/or that he felt confident in his role as a parent. He reported low
levels of overall stress, and scores within the normal range on the three
subscales. Edward's father reported modest decreases in his overall level of
stress, as well as on the three subscales.

Fathers' work schedules and a lack of time has been cited as one reason
for decreased father involvement (McConachie, 1982; Pleck, 1983). From a
practical standpoint, the limited available time of fathers in this study was
maximized by addressing self-help skills identified by each father (McConachie,
1982). Each individualized parent training program targeted father behaviors
(instruction giving, positive attention, and correct consequences). However
each father identified self-help skills important for their son to learn; the
therapist tailored examples and gave practical feedback on day to day situations
for each family. Furthermore, fathers may have been more invested because
they were able to help choose the self-help tasks involved in the parent training.
By targeting practical activities dealt with daily in the home, the new demands
placed on the fathers were limited. By limiting new demands, fathers' work
schedules and lack of time were minimized as possible determinants of father
involvement.

The current study advanced previous research on parent training and
father involvement in several ways. Previous research on parent training has
chiefly defined "parent" as "mother" (Bristol & Gallagher, 1986). This study
differs in that fathers were included and were the principal participants
involved. In the past, the vast majority of studies have either neglected fathers
altogether or combined mother and father data into parent data (Baker, 1989).
Since fathers were the focus of the study, mothers were not present during
training or observations. In addition, research on father involvement has
primarily focused on fathers of intellectually normal children; fathers of special
needs children have been relatively ignored (Meyer, 1986; Patterson,
Chamberlain, & Reid, 1982; Baker, 1989). Few studies have included observational or experimental studies of fathers interacting with their handicapped child (Lamb, 1983; McConachie, 1982). Furthermore, studies that address the psychosocial functioning of parents have typically looked at mothers’ adaptation to a special needs child (Bristol & Schopler, 1983; DeMyer, 1979; Marcus, 1984). The present study differed in that father behaviors were targeted in an experimental study, observational data were used, and father’s reports of their perceived level of stress were included.

Several limitations of the present study should be noted. The experimenter, as the primary investigator, served as the therapist for all four participants. Replications with different therapists are vital. However the present study provides a basis for future research and replications to include fathers. Future research should investigate the importance of therapist characteristics in working with fathers (e.g., would a male therapist have obtained different or quicker results?).

A second limitation involves the restricted sample. All participants were middle class intact families. Although single parents and parents in lower SES brackets were targeted, response was poor. During recruitment, the experimenter worked at an agency which assessed children at risk for developmental delays. The majority of the families seen there were of lower SES, and many involved single mothers. In a typical week, 10 children were scheduled. Over the 8 month period during which the experimenter worked at this agency, potential subjects were contacted by the experimenter. However no families decided to participate. Others studies might investigate the reasons for decisions not to participate, and determine solutions regarding how these families might become involved also.
Another limitation of the study was the lack of follow-up data; generalization and maintenance of fathers' behavior change was not assessed. Furthermore, previous research (Willoughby & Glidden, 1995) indicated that greater father involvement in child care was associated with greater marital satisfaction. Marital satisfaction was not assessed in this study. Future research could include marital satisfaction measures for both parents taken before and after participation in the research and address generalization and maintenance of fathers' behavior change. In addition, the effects of mother presence on father behavior was not addressed in this study; mothers were not present during training and observations. Future research could address how father behavior may differ in the presence of mother as well as how parents can work together to provide consistency.

Despite these limitations, the present study adds to the literature. Bristol and Gallagher pointed out that so little is known about fathers of children with special needs that information at all levels is needed (1986). The current study attempted to address the goals of providing information about fathers involved in parent training and to evaluate fathers as intervention agents for their children with developmental disabilities. As the trend towards both parents working and less traditional gender roles continues, professionals need to include fathers now more than ever (Garbarino, 1993; Meyer, 1986; Levine, 1993; Marsiglio, 1993). The four participants indicated that the increased involvement was welcomed by themselves and their spouses. Additionally, research on fathers is needed to enhance program development and provide professionals with empirical data on how to continue father involvement.
REFERENCES


83

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.


Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.


APPENDIX A

PARENT RECRUITMENT LETTER

University of North Carolina
Chapel Hill, NC
UNC-CH Study #94-TEACCH-254

Dear Parents:

I am conducting a research study and offering free parent training to fathers who have children with developmental disabilities between the ages of 3 and 8. The free training will be provided in the convenience of your own home. The research and training will be conducted by myself, Deirdre Russell, M.A., under the supervision of Dr. Johnny Matson (Louisiana State University) and Dr. Mary Van Bourgondien (University of North Carolina-Chapel Hill).

I am a graduate student in Clinical Psychology. The present study is part of my dissertation work in completing my doctorate at Louisiana State University. Currently, I am on internship here at the University of North Carolina-Chapel Hill School of Medicine. I am writing this letter to recruit interested families.

The purpose of this study is to help fathers improve their teaching skills with their children. This study focuses on an important area of research, because previous research has neglected the importance of fathers in meeting the treatment needs of children with special needs.

If you decide to participate in the study, I will interview you in your own home. The first interview will consist of a demographic questionnaire, a questionnaire on life stress, and a questionnaire regarding the father's familiarity with different teaching techniques. This interview will last approximately one hour. Fathers that agree to participate will receive training in the use of behavior management skills in teaching their child self-help tasks (decided individually based on each families' needs). All training will take place in the convenience of your own home. Depending on families' schedules, training will be conducted approximately twice a week in the evenings or on the weekends, in the home, and will last approximately 60 minutes. The training length will last approximately 6 to 14 weeks, depending on individual needs. Each training session will last approximately 15 to 20 minutes and will be spent working with the father and his child. Following each training session, trained observers will observe the father and his child for 10 minutes. Since fathers are the primary focus of the study, training will be conducted individually with fathers. However, if mothers would also like training, it will be offered at no cost to them after fathers complete the research. At the end of the study, fathers will be reimbursed $50 for their time and effort.

If you are interested in participating or would like additional information, please call Deirdre Russell (Deedee) at 544-4486, or leave a message as to the best time to reach you.

Thank you for your interest.

Deirdre Russell, M.A.
APPENDIX B

CONSENT FORM

UNC Hospitals
Chapel Hill, North Carolina
UNC-CH Study #94-TEACCH-254

CONSENT TO PARTICIPATE IN A RESEARCH STUDY

TITLE OF STUDY:
Fathers as Intervention Agents: Parent Training for Families with Developmentally Delayed Children

Sponsor Study number: 94-TEACCH-254

Principal Investigator: Mary E. Van Bourgondien, Ph.D.
Phone Number: 966-2173

Co-Principal Investigator: Deirdre Russell, M.A.
Phone number: 942-4478

You are asked to take part in a research study under the direction of Mary E. Van Bourgondien, Ph.D. and Deirdre Russell, M.A. Other professional persons who work with them may assist or act for them. You will be one of approximately four subjects in this research study.

Purpose: The purpose of this research study is to help parents improve their behavior management skills and increase their child's compliance.

Duration: Your participation in this study will last for approximately 8 to 14 weeks, depending on individual needs.

Procedures: If you decide to participate, you will be asked to complete questionnaires concerning your child and family. In addition, you will receive training in the appropriate use of behavior management skills. Training will take place approximately twice a week, in your home, and will last approximately 60 minutes. Training length will last approximately 8 to 14 weeks, depending on individual needs. Following each training session, trained observers will observe you and your child for 10 minutes. The observers will make ratings on your interactions with your child during a self-help task. The exact task will be determined in conjunction with the family based on their needs.

Exclusions: You should not participate in this study if any of the following apply to you or your child: 1) You have previously received formal parent training for your child. 2) Your child has received a diagnosis of autism. 3) You do not want to learn new ways of interacting with your child.

Risks and Discomforts: Although it is not possible to foresee all possible risks, no physical or emotional risks are expected from these procedures. Some individuals may experience some discomfort from being observed. Also, the literature suggests that when learning new behaviors some children will go through a
temporary period of increased negative behaviors before acquiring more positive behaviors (i.e., your child's compliance may become worse before it becomes better).

Benefits: You may benefit from receiving a treatment that may not otherwise be available. A second benefit is that the study provides treatment in the convenience of your own home, without requiring you to handle transportation and parking costs. As a result of this treatment, you may become more skilled in child management techniques, which may increase your child's compliance to your instructions. Finally, you will receive $50 remuneration for your time and effort.

Alternatives: If you choose to not participate in this study, you may seek help through agencies or private practice professionals that provide parent training for families of children with developmental disabilities, or read self-help books. You may find these alternatives advantageous in that treatment will not be conducted in your home, as well as possible other benefits. However, the alternative treatments may have waiting lists or only be available at a cost.

New Findings: You will be given any new information gained during the course of the study that might affect your willingness to continue your participation.

Confidentiality: All of the information in this study will be confidential and used for research purposes only. Please feel free to ask any questions you may have. You may withdraw from the study at any point in time. Every effort will be taken to protect the identity of the participants in this study. However, there is no guarantee that the information cannot be obtained by legal process or court order. No subjects will be identified in any report or publication of this study or its results.

Financial costs of the research: You will not be charged for the treatment provided to your family.

Payments to Participants: You will receive $50 financial remuneration for participation.

Right to refuse or to withdraw from the study: Your participation is voluntary. You may refuse to participate, or may discontinue your participation at any time without penalty, or losing benefits you would otherwise be entitled to.
Institutional Review Board Approval: This project has been approved by the Committee on the Protection of the Rights of Human Subjects at The University of North Carolina at Chapel Hill. If you believe that there is any infringement upon your rights, you may contact the Chairman of the Committee, Ernest N. Kraybill, M.D. at (919) 966-1344.

I have had the opportunity to ask, and have had answered, all my questions about this research. If I have other questions, or if a research-related injury occurs, I will call Deirdre Russell at 942-4478, or Mary E. Van Bourgondien at 966-2173.

I have read the information provided above. I voluntarily agree to participate in this study. After it is signed I understand I will receive a copy of this consent form.

________________________________________  ________________________
Signature of Research Subject               Date

________________________________________
Signature of Person Obtaining Consent
APPENDIX C

OBSERVATION MANUAL

(Adapted in part from Forehand & McMahon, 1981)

Observers will practice continuous interval time sampling using data sheets (attached) to record responses from videotapes prepared by the experimenter. Any ambiguities will be discussed and clarified by the experimenter. Training will continue until the raters have reached a level of at least 80% agreement on three successive occasions. Interobserver agreement will be calculated by dividing the number of agreements by the number of agreements plus disagreements and multiplying by 100%. An agreement is defined as both raters scoring a response identically for a target behavior during a 10 second interval. Observers will continue to practice response measurement until formal data collection begins. Observers will continue to have booster sessions to review response definitions in order to prevent observer drift (Reid, 1982).

Observational sessions. Each family will be observed in the home following each parent training session. Observations will last 10 minutes. During observations, parents will be asked to interact with their child on a self-help task, such as dressing, brushing teeth, eating. They will be asked to remove distractions (e.g., television, radio) and to refrain from answering the telephone during training and observation sessions. If the child leaves the observation area, observers will continue to score as long as the parent can be seen and is attempting to bring the child back. If the parent gives up, rating is stopped and the parent is prompted to bring back the child. If the child leaves to go to the bathroom, rating will be stopped. Parents will be instructed to check on the child's bathroom needs before the observation begins.

Note: Observers, please refrain from interacting with families during observations. All questions should be referred to the experimenter. Try to blend in with the background and become as unobtrusive as possible. Always be polite; you are in someone's home. Although you do not need to dress in your "Sunday best", do not wear sweat pants or cut-offs. Use your judgment (jeans are all right to wear as long as they look presentable).

Parent and child behavior will be recorded during continuous 10 second intervals (cued by cassette tape) for a total of 10 minutes per parent.
**BEHAVIORAL DEFINITIONS**

1. **Prompts** - any clear, concise verbal instruction that cues the child to perform a task (e.g., "Sit down", "Come here", "Give me the ball", "Stop kicking me").

   Prompts do **NOT** include the following:

   Ambiguous or vague commands ("Think hard" or "Calm down", coded as IV)

   If-when statements ("Put it up there, if you want to" or "When you finish, then put this on it", not coded)

   Warnings ("If you don't stop, you'll have to go to your room" or "Your mother will straighten you out if you don't behave", not coded)

   Questions ("Is that yellow?" or "Do you need some help?", not coded)

   Indirect commands ("Let's play blocks" or "You should pick up the toys now" or "See if you can be quiet", coded as IV), or

   Question commands ("Can you make it taller?" or "Why don't you sit down?" or "Hand me the block, will you?", coded as ?).

**Incorrect verbal prompts** - prompts that did not meet the definition of correct prompts, such as question commands, repeated commands, and don't commands. Also included vague or unclear prompts (e.g., "Calm down", "Get going") and suggestive rather than directive ("Let's pick up your toys now").

Prompts are divided into three subtypes: verbal prompt, verbal/gestural prompt, and verbal/physical guidance prompt.

**Verbal prompts** - when the parent verbally instructs the child without giving any other nonverbal prompts ("Pick up the ball").

**Verbal/gestural prompts** - when the parent verbally prompts and physically demonstrates or gestures to the child how to perform a task ("Pick up the ball like this").

**Verbal/physical guidance prompts** - when the parent physically guides the child's actions while providing verbal instruction (Parent says "Pick up the ball like this" while providing hand over hand guidance of picking up the ball).

2. **Appropriate positive attention** - a physical gesture or verbal statement that displays parent approval of the child's behavior and is judged to be contingent upon child compliance or appropriate behavior. To be scored as appropriate, the parent must initiate the gesture or statement within 5 seconds of the child's compliance.

Examples of verbal positive attention include "Thank you", "Good job", "Wow!", "All right!", "There you are", "Very nice", "You did such a good job", "You put the blocks away nicely", "That tower looks great", "I like it when you do what I tell you", and "Thank you for picking up the toys". Examples of physical gestures of positive attention include hugging, kissing, clapping hands, patting child on
back, or tickling. Physical gestures that are NOT examples include spanking, slapping, or dragging child by the arm.

3. **Inappropriate attention** - attention to a child's inappropriate behavior or noncompliance, such as smiling, laughing, or talking with the child who is engaging in noncompliance or inappropriate behavior. Also positive attention following compliance gained with physical guidance is coded as inappropriate attention.

4. **Compliance** - the correct completion or initiation toward completion of a verbal or motor response that is specified by the parent's prompt. The verbal or motor response must be observed to occur or be initiated within 10 seconds of the parents' initial verbal or gestural prompt (compliance obtained with physical guidance will not be included).

5. **Inappropriate behavior** - individually identified for each child. For example, inappropriate behavior will be coded if the child is observed to engage in any of the following behaviors during the 10 second interval: disruptive behavior, screaming or inappropriate vocalizations, self-injurious behavior, aggression, bizarre or stereotypic behavior.

6. **Appropriate consequences** - individually identified for each father based on an informal functional analysis of the child's inappropriate or noncompliant behavior. No aversive techniques or corporal punishment used. For example, if the child's inappropriate behavior (screaming) appeared to be maintained by social attention from the father, then the experimenter taught planned ignoring and immediate attention to appropriate behavior. Appropriate consequences were individually defined based on an informal functional analysis of each child's behavior, and included ignoring, time-out, and persistence with prompts to effect compliance.
BEHAVIOR CODES AND SYMBOLS

V: Correct verbal prompt - clear concise verbal instruction that cues the child to perform a task. Example: "Pick up the toothbrush".

VG: Correct verbal/gestural prompt - when the parent verbally prompts and physically demonstrates or gestures to the child how to perform a task. Example: "Pick up your pants like this".

VG!: Incorrect verbal/gestural prompt - a verbal/gestural prompt that does not meet the above description, or does not follow 10 seconds after a verbal prompt.

VP: Correct verbal/physical guidance prompt - when the parent physically guides the child's actions while providing verbal instruction. Example: Parent says "Pick up your pants like this" while providing hand over hand guidance of picking up the child's pants. When physical guidance is used to effect compliance, compliance is not scored.

VP!: Incorrect verbal/physical guidance - a verbal/physical guidance prompt that does not meet the above description, or does not follow 10 seconds after a verbal gestural prompt.

R: Repeated prompt - any instruction that is repeated before 10 seconds have elapsed.

D: Don't command - a type of incorrect prompt that tell the child what not to do instead of what to do. Example: "Don't stand so close"; "Don't pick your nose", "Don't kick your brother".

?: Question command - a type of incorrect prompt in which direct commands are given in an indirect question format. Example: "Are you ready to brush?"; "Can you zip your pants?"; "Shall we eat with our fork?"

IV: Incorrect verbal prompt - any other type of incorrect verbal prompt, such as vague commands or indirect commands.

C: Compliance - correct completion or initiation towards completion of parents verbal or gestural prompt, within 10 seconds.

+: Correct positive attention - a physical gesture or verbal statement that displays parent approval of the child's behavior, and is contingent upon child compliance or appropriate behavior. To be scored as appropriate, the parent must initiate the gesture or statement within 5 seconds of the child's compliance. Examples of verbal positive attention include "Thank you", "Good job", "Wow!", "All right!", "There you are", "Very nice".

IA: Inappropriate attention - when the parent attends to a child's inappropriate behavior, or attends to a child's noncompliance. May take the form of smiling.
laughing, or talking with the child who is engaging in noncompliance or inappropriate behavior.

**IB:** Inappropriate child behavior - individually identified for each child. For example, inappropriate behavior will be coded if the child is observed to engage in any of the following behavior during the 10 second interval: disruptive behavior, screaming or inappropriate vocalizations, self-injurious behavior, aggression, bizarre or stereotypic behavior.

**AC:** Appropriate adult consequences - individually determined based on each child's behavior. An informal functional analysis of the child's inappropriate behavior will be conducted to assess which consequence applies best. For example, fathers may be taught time-out, ignoring, or persistence with prompts to effect compliance.
APPENDIX D.

PARENT'S CONSUMER SATISFACTION QUESTIONNAIRE

The following questionnaire is part of our evaluation of the treatment program that you have received. It is important that you answer as honestly as possible. The information obtained will help us evaluate the program we offer. Your cooperation is greatly appreciated.

A. The Overall Program

In this section we would like to get your opinion of how the parent training program worked for you and your family. Please check the response that most closely describes your opinion.

1. At this point, the major problem(s) that originally prompted me to begin treatment for my child is (are):
   - [ ] Considerably worse.
   - [ ] Worse.
   - [ ] Slightly worse.
   - [ ] The same.
   - [ ] Slightly improved.
   - [ ] Improved.
   - [ ] Greatly improved.

2. My feelings at this point about my child's progress are that I am:
   - [ ] Very dissatisfied.
   - [ ] Dissatisfied.
   - [ ] Slightly dissatisfied.
   - [ ] Neutral.
   - [ ] Slightly satisfied.
   - [ ] Satisfied.
   - [ ] Very satisfied.

3. At this point, my expectation for a satisfactory outcome of treatment is:
   - [ ] Very pessimistic.
   - [ ] Pessimistic.
   - [ ] Slightly pessimistic.
   - [ ] Neutral.
   - [ ] Slightly optimistic.
   - [ ] Optimistic.
   - [ ] Very optimistic.

100
4. I feel that using behavior modification techniques for my child's noncompliance problems in the home is:
   ___ Very inappropriate.
   ___ Inappropriate.
   ___ Slightly inappropriate.
   ___ Neutral.
   ___ Slightly appropriate.
   ___ Appropriate.
   ___ Very appropriate.

5. Would you recommend behavior modification techniques to a friend or relative?
   ___ Strongly recommend.
   ___ Recommend.
   ___ Slightly recommend.
   ___ Neutral.
   ___ Slightly not recommend.
   ___ Not recommend.
   ___ Strongly not recommend.

6. How confident are you in managing current noncompliance problems in the home on your own?
   ___ Very confident.
   ___ Confident.
   ___ Somewhat confident.
   ___ Neutral.
   ___ Somewhat unconfident.
   ___ Unconfident.
   ___ Very unconfident.

7. How confident are you in your ability to manage future noncompliance problems in the home using what you learned from this program?
   ___ Very unconfident.
   ___ Unconfident.
   ___ Somewhat unconfident.
   ___ Neutral.
   ___ Somewhat confident.
   ___ Confident.
   ___ Very confident.
8. I feel that using behavior modification techniques is:
   _____ Extremely difficult.
   _____ Difficult.
   _____ Somewhat difficult.
   _____ Neutral.
   _____ Somewhat easy.
   _____ Easy.
   _____ Extremely easy.

9. I feel that using behavior modification techniques is:
   _____ Not useful at all.
   _____ Not useful.
   _____ Somewhat not useful.
   _____ Neutral.
   _____ Somewhat useful.
   _____ Useful.
   _____ Extremely useful.

10. My overall feeling about the treatment program for my child and family is:
    _____ Very negative.
    _____ Negative.
    _____ Somewhat negative.
    _____ Neutral.
    _____ Somewhat positive.
    _____ Positive.
    _____ Very positive.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.
B. Difficulty

In this section, we would like to get your ideas on the difficulty of the following types of teaching. Please indicate your difficulty in understanding each teaching method. Circle the response that most clearly describes your opinion.

(1) (4) (7)
Extremely Neutral Extremely
Difficult Easy

______________________________

Written Materials
1  2  3  4  5  6  7

Discussion of Written Materials
1  2  3  4  5  6  7

Demonstration of Skills by the Therapist
1  2  3  4  5  6  7

______________________________
C. **Usefulness**

In this section, we would like to get your ideas of how useful each of the following types of teaching is for you now. Please circle the response that most clearly describes your opinion.

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
<th>(7)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Useful At All</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neutral</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Extremely Useful</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Written Materials

1  2  3  4  5  6  7

Discussion of Written Materials

1  2  3  4  5  6  7

Demonstration of Skills by the Therapist

1  2  3  4  5  6  7

D. **The Therapist**

In this section we would like to get your ideas about your therapist. Please mark the response that best expresses how you feel.

1. I feel that the therapist's teaching was:
   - [ ] Very poor.
   - [ ] Fair.
   - [ ] Slightly below average.
   - [ ] Average.
   - [ ] Slightly above average.
   - [ ] High.
   - [ ] Superior.
2. The therapist's preparation was:
   - Very poor.
   - Fair.
   - Slightly below average.
   - Average.
   - Slightly above average.
   - High.
   - Superior.

3. Concerning the therapist's interest and concern in me and my problems with my child, I was:
   - Very dissatisfied.
   - Dissatisfied.
   - Slightly dissatisfied.
   - Neutral.
   - Slightly satisfied.
   - Satisfied.
   - Very satisfied.

4. At this point, I feel that the therapist was:
   - Extremely not helpful.
   - Not helpful.
   - Slightly not helpful.
   - Neutral.
   - Slightly helpful.
   - Helpful.
   - Extremely helpful.

5. Concerning my personal feelings towards the therapist:
   - I dislike her very much.
   - I dislike her.
   - I dislike her slightly.
   - I have a neutral attitude toward her.
   - I like her slightly.
   - I like her.
   - I like her very much.
APPENDIX E

DEMOGRAPHIC QUESTIONNAIRE

1. AGE: 0-19 _______ 20-29 _______ 30-39 _______
   40-49 _______ 50 or older

2. SEX: Male _______ Female _______

3. MARITAL STATUS: Married _______ Single _______
   Divorced _______ Separated _______

4. RACE: Black _____ White _____ Hispanic ___
   Oriental _____ Other _____

5. Please list the members of your household.

<table>
<thead>
<tr>
<th>Name</th>
<th>Relationship</th>
<th>Age</th>
<th>Sex</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.
6. EDUCATION:

What is the highest level of education completed by yourself and your spouse?

<table>
<thead>
<tr>
<th>Yourself</th>
<th>Your spouse</th>
</tr>
</thead>
<tbody>
<tr>
<td>___ 8th grade or less</td>
<td>___ 8th grade or less</td>
</tr>
<tr>
<td>___ some high school</td>
<td>___ some high school</td>
</tr>
<tr>
<td>___ graduated high school</td>
<td>___ graduated high school</td>
</tr>
<tr>
<td>___ some college/university</td>
<td>___ some college/university</td>
</tr>
<tr>
<td>___ graduated from 4-yr. college</td>
<td>___ graduated from 4-yr. college</td>
</tr>
<tr>
<td>___ graduated from vocational training</td>
<td>___ graduated from voc. training</td>
</tr>
<tr>
<td>___ graduate degree</td>
<td>___ graduate degree</td>
</tr>
</tbody>
</table>

7. OCCUPATION: What is your occupation? ______________________

Your spouse's occupation? ______________________

8. INCOME: What is the total annual income of your household (combined income of all people living in your house now)?

| ___ $0 - $4,999                  | ___ $25,000 - $29,999            |
| ___ $5,000 - $14,999            | ___ $30,000 - $34,999            |
| ___ $15,000 - $19,999          | ___ $35,000 - $39,999            |
| ___ $20,000 - $24,999          | ___ $50,000 or above             |

9. Have you ever received psychological services for your child?

No _____ If Yes ____ Briefly explain _____________________________

10. Have you and your spouse ever received formal parent training?

Yes ____ No ____
APPENDIX F

HANDOUTS

HOW TO GIVE GOOD INSTRUCTIONS

When teaching your child, compliance is very important. Your child must learn how to follow instructions. You can help by giving instructions in a way that makes it more likely your child will comply. We will talk about some general guidelines, as well as a three step method for giving instructions.

General guidelines

Part of giving good instructions includes teaching your child to pay attention. Attending is important for learning all types of skills, as well as following directions. Let's look at 9 guidelines to increase your child's attention, and help gain compliance.

1. STAND NEAR HER
When speaking to your child, make sure she can see you and hear you. Do not expect her to respond to instructions shouted from another room. Even talking to her from across the room may be too difficult in the beginning.

2. GET ON HIS LEVEL
Position yourself so that he can see your face. You want him to pay attention to your face, look in your eyes, watch what you say. If he is sitting on the floor, squat down so he can see you. If he is at a table, sit facing him. Make it easy for him to watch your face.

3. CALL HER NAME
Your child probably recognizes her name. Before asking her to do something, get her attention by calling her name-then she knows you are talking to her. Wait until she looks at you before continuing. If she doesn't look, say her name again. Use proper names when you can. Pronouns (I, you, me) are more difficult. If she doesn't respond to her name, take her chin and gently turn her face toward you.

"Cathy get the ball."
"Give Dad the ball."

4. GET EYE CONTACT
When you say his name and he looks towards you, look him in the eyes. If he is facing you but looking at the floor, he may be paying more attention to the floor than to you. If he doesn't look directly at you, put a finger gently on his chin and guide him to look at you.

5. USE SIMPLE WORDS
When you give instructions, use simple, familiar words and short sentences. "Come play" tells him in simple, clear terms exactly what you want him to do. It is better than "recess" or "playtime", which may not mean anything to your child. Short instructions are easier to remember and understand.
APPENDIX E
DEMOGRAPHIC QUESTIONNAIRE

1. AGE: 0-19 ________ 20-29 ________ 30-39 ________
        40-49 ________ 50 or older

2. SEX: Male ________ Female ________

3. MARITAL STATUS: Married ________ Single ________
                     Divorced ________ Separated ________

4. RACE: Black ________ White ________ Hispanic ________
          Oriental ________ Other ________

5. Please list the members of your household.

<table>
<thead>
<tr>
<th>Name</th>
<th>Relationship</th>
<th>Age</th>
<th>Sex</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
6. EDUCATION:

What is the highest level of education completed by yourself and your spouse?

<table>
<thead>
<tr>
<th>Yourself</th>
<th>Your spouse</th>
</tr>
</thead>
<tbody>
<tr>
<td>___ 8th grade or less</td>
<td>___ 8th grade or less</td>
</tr>
<tr>
<td>___ some high school</td>
<td>___ some high school</td>
</tr>
<tr>
<td>___ graduated high school</td>
<td>___ graduated high school</td>
</tr>
<tr>
<td>___ some college/university</td>
<td>___ some college/university</td>
</tr>
<tr>
<td>___ graduated from 4-yr. college</td>
<td>___ graduated from 4-yr. college</td>
</tr>
<tr>
<td>___ graduated from vocational training</td>
<td>___ graduated from voc. training</td>
</tr>
<tr>
<td>___ graduate degree</td>
<td>___ graduate degree</td>
</tr>
</tbody>
</table>

7. OCCUPATION:

What is your occupation? _______________________

Your spouse's occupation? _______________________

8. INCOME: What is the total annual income of your household (combined income of all people living in your house now)?

<table>
<thead>
<tr>
<th>$0 - $4,999</th>
<th>$25,000 - $29,999</th>
</tr>
</thead>
<tbody>
<tr>
<td>$5,000 - $14,999</td>
<td>$30,000 - $34,999</td>
</tr>
<tr>
<td>$15,000 - $19,999</td>
<td>$35,000 - $39,999</td>
</tr>
<tr>
<td>$20,000 - $24,999</td>
<td>$50,000 or above</td>
</tr>
</tbody>
</table>

9. Have you ever received psychological services for your child?

No ____ If Yes ____ Briefly explain _____________________________

10. Have you and your spouse ever received formal parent training?

Yes ____ No ____
3. **GUIDE ME.**

Bobbie may not know how to do what Dad is asking. Or, Bobbie may not understand what Dad is asking. Or, Bobbie may just be noncompliant with Dad's instructions. Regardless of the reason, if Bobbie does not start to put the block in the basket within 10 seconds, Dad would try the third and final step. He would take Bobbie's hand and physically guide him to put the block in the basket while saying "Bobbie, put the block in the basket like this".

*Adapted from Baker et al. (1989), Sandra Harris (1976), and Mary Lou Kelley*
HOW TO GIVE GOOD INSTRUCTIONS

Teaching a child can be difficult. Teaching a child with special needs can be especially difficult. In order to help your child understand your instructions, and therefore increase the chance that your child will comply with your instructions, here are a few guidelines.

1. AVOID STATING INSTRUCTIONS AS QUESTIONS OR SUGGESTIONS

If you really want your child to perform a behavior, don't give him a chance to say "NO" by stating an instruction as a question. DO NOT ask or say "OK?" after an instruction. Sometimes parents think they are giving an instruction when they are giving a choice. For example, if you say "Are you ready for bed?" when you mean "Go to bed", you are giving your child a choice.

Examples of choice statements:
- "Would you give me the ball?"
- "Want to clean up now?"
- "Ready to brush your teeth?"
- "Put up the blocks, will you?"
- "Why don't you sit down, OK?"
- "Do you want to come here?"
- "Are you done eating?"

Clear instructions:
- "Give me the ball."
- "Pick up your toys."
- "Time to brush your teeth."
- "Put up the blocks."
- "Sit down, please."
- "Come here."
- "Finish eating."

a. Suggestions. If your child is just learning to follow your instructions, be careful not to suggest something if what you really want is for your child to do something.

Examples of suggestions:
- "I think it's time to go to bed."
- "You could hand me that toy."
- "Here's another block."

Direct instructions:
- "Go to bed."
- "Hand me the toy."
- "Put the block in."

b. "Can you ..." questions. Only use "Can you ..." questions when you want to know if your child can do something. If you know your child can do a task and you want them to do it, say it directly.

Examples:
- "Can you sit quietly?"
- "Can you give me your shoe?"
- "Can you ask for more milk?"

Parent intentions:
- "Sit quietly."
- "Give me your shoe."
- "Ask for more milk."

2. GIVE YOUR CHILD A CHANCE TO COMPLY

Sometimes parents give directions too fast, and do not allow their child time to follow the directions. ALLOW YOUR CHILD TIME TO COMPLETE YOUR INSTRUCTIONS. Research suggests that 10 seconds allows the child time to begin following your instruction. After you give the instruction "Pick up your toys", silently or softly count to 10. If your child does not start to pick up in 10 seconds, then you can move on. You have given your child a chance to comply to the first instruction.

3. "LET'S ..." INSTRUCTIONS

"Let's ..." instructions are fine for family time together or times when you really mean that you want both of you to do something together. However, during times when you are teaching or giving instructions, "let's or let us" may confuse your
child. "Let's" implies that both you and your child will do something. Do not use "Let's" statements if what you really mean is for your child to do something.

Examples:
"Let's put the toys away."
"Let's brush your teeth."
"Let's go potty."

Parent intentions:
"Put the toys away."
"Brush your teeth."
"You go potty."

4. USE DO INSTRUCTIONS RATHER THAN DON'T INSTRUCTIONS

Your child will be more likely to follow your instructions if you tell her what to do instead of what not to do. Sometimes it will be necessary to tell your child to stop a behavior. For example, "Stop hitting" or "Don't kick" are important instructions, but they don't tell a child what to do instead. "Hands down" accomplishes the same thing, because if your hands are down you can't be hitting. And your child learns what to do instead.

Again, tell your child what you want him to do, not what you don't want him to do. Emphasize the positive behavior rather than the negative behavior. Saying "Don't..." only teaches your child what not to do, not what to do. Stating instructions positively will help teach your child the correct behavior.

Negative instructions:
"Don't grab."
"Stop screaming."
"Don't run."
"Don't play with your food."

Positive instructions
"Ask for what you want."
"Play quietly."
"You need to walk."
"Use your fork."

5. USE A FIRM NEUTRAL VOICE

Parents may sometimes sugar-coat their instructions or give them in a loud angry voice. For example, a parent may say "Come on sugar- pie, let's put the toys away, okay?" or "Put the toys away RIGHT NOW". Children use many cues to pick up what we tell them. They listen to the words, watch our facial expressions, and listen to the tone of our voice. When you are playing with your child, use a playful voice. Research suggests that when you are reprimanding your child, giving instructions, or teaching, a firm and neutral voice works best.

6. BE CONSISTENT

Use the same words for people, places, and things all the time. Father should always be "Daddy" (or whatever you prefer), not Dad one day and Papa the next.

7. USE SIMPLE WORDS

When you give instructions, use simple, familiar words and short sentences. "Come play" tells him in simple, clear terms exactly what you want him to do. It is better than "recess" or "playtime", which may not mean anything to your child. Short instructions are easier to remember and understand.

Examples of too many or vague words:
"Please put your bottom in the chair."
"Put it up there if you want to."
"Come on."
"Think hard."
"Be careful."

Examples of simple familiar words:
"Sit down."
"Come here."
"Give me the ball."
"Stop kicking me."

"Why don't you come over here now."
"I want you to get the ball and bring it over to me."
"It isn't nice for you to kick me."

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.
Review: Basically, in order to help your child understand and improve compliance, the following were suggested:

1. Tell, don't ask.
2. Count to 10.
3. Avoid "Let's" statements; be direct.
4. DO, not don't.
5. Firm voice.
6. Consistency.
7. Simple words.

*Adapted from Baker et al. (1989), Sandra Harris (1976), and Mary Lou Kelley
INSTRUCTIONAL SEQUENCE

You may want to teach your child a variety of skills, such as self-help skills, play skills, school readiness skills, social skills, etc. As you know, compliance is important when teaching your child. You can help by giving instructions in a way that makes it more likely your child will comply.

TEACHING SEQUENCE

One method for teaching children with special needs is a 3 step Teaching Sequence, also known as Tell me, Show me, Guide me. This method has been successful with increasing compliance, as well as learning new skills.

1. TELL ME.
   The first step is to give the instruction (or prompt as it is sometimes called). For example, if Dad wants Bobbie to put the block in the basket, he would say "Bobbie, put the block in the basket". If Dad feels that a nonverbal cue will help Bobbie to understand the direction, then a nonverbal cue can be given with the verbal prompt/instruction. Dad would give Bobbie a chance to comply.
   Sometimes parents give directions too fast and do not allow their child time to follow the directions. ALLOW YOUR CHILD TIME TO COMPLETE YOUR INSTRUCTIONS. Dad would then silently count to 10. (If Bobbie complies, move on to next instruction).

2. SHOW ME.
   If Bobbie has not started to put the block in the basket within 10 seconds, Dad would try the second step. By allowing Bobbie 10 seconds, Dad has given him a chance to comply on his own. For the second step, he would say "Bobbie, put the block in the basket like this" while modeling for Bobbie how to complete the instruction. Dad would then silently count to 10 again.

3. GUIDE ME.
   Bobbie may not know how to do what Dad is asking, may not understand what Dad is asking, or may just be noncompliant with Dad's instructions. Regardless of the reason, if Bobbie does not start to put the block in the basket within 10 seconds, Dad would try the third and final step. He would take Bobbie's hand and physically guide him to put the block in the basket while saying "Bobbie, put the block in the basket like this".

   If you are teaching a skill, such as how to brush teeth, it is helpful to make a list of all the component parts of that skill. (This is sometimes called a task analysis). So, for toothbrushing, the list may look like this:

(Preparation statement, such as "It's time to brush your teeth")
1. Turn on the light.
2. Pick up your toothbrush.
3. Rinse.
4. Hold toothbrush for toothpaste.
5. Open your mouth.
6. Brush your front (back, side) teeth.
7. Rinse.
8. Shake.
10. Turn off light.
With other skills, teaching the last step first is helpful. For example, when teaching your child how to dress or undress, it is helpful to begin from the end of the task. Teaching these types of skills take time, patience, and consistency. If you consistently work on the skills each time your child dresses or undresses, you may be surprised at how he learns. A general approach to teaching 'remove pants' would be as follows:

1. Have him remove his shoes first, so pants are easier to take off. Begin with him standing. It is easier to pull pants down while standing, then remove them while sitting on the floor, bed, or chair; whichever is easier for your child. With him standing, you pull his pants down to his ankles. Have him sit down and you remove his pants from one foot. Say "Take your pants off". Place his hands on the pants and guide him with your hands on his to pull the pants off his other foot and have him hand them to you.

2. With him standing, you pull his pants down to his ankles and then have him sit down. Say, "Take your pants off". Place his hands on the pants and guide him in pulling the pants off one foot. Let him take his pants off the other foot and hand them to you.

3. With him standing, you pull his pants down to his knees and place his hands on the sides of his pants with his thumbs inside the waistband. Say "Take your pants off", then place your hands and guide him in pulling his pants down to his ankles. Have him sit down, finish taking his pants off and give them to you.

4. When he is able to take his pants off from his knees without your physical guidance, begin helping him remove them from mid-thigh, then hips, then waist.

5. Gradually give him less and less assistance until he is able to take his pants all the way down and off without any physical assistance from you after you have unfastened them. You are finished!

*From Baker et al. (1989)
Steps in Removing Pants

0. Cannot remove pants
1. Pulls pants off one leg after you remove pants from other leg.
2. Pulls both pants legs off from ankle, while sitting.
3. Pulls pants off from below knees, while sitting.
4. Pulls pants down from above knees, then sits & pulls them off.
5. Pulls pants down from mid-thigh, then off.
6. Pulls pants down from hips, then off.
7. Removes pants completely, with your supervision.
8. Removes pants completely on own.

Steps in Putting on Pants

0. Cannot put on pants
1. Pulls pants up to waist after you put them up to hips.
2. Pulls pants up to waist after you put them on the middle of his thighs.
3. Pulls pants up to waist after you put them over both feet.
4. Stands and pulls pants up to waist after you put them over both feet.
5. Puts pants on one foot and pulls up to waist after you hand them to him.
6. Puts pants on both feet and pulls up to waist after you hand them to him.
7. Puts pants on completely by himself.

Steps in Putting on a Pullover Shirt

0. Cannot put on a pullover shirt.
1. Pulls shirt down over his head after you place it on his head.
2. Pulls shirt down over his head and you put his arms in; then he pulls shirt down to waist.
3. Pulls shirt over his head and puts one arm in.
4. Pulls the shirt over his head and puts both arms in.
5. Puts shirt on after you hand it to him.
6. Picks up pullover shirt and puts it on completely on his own.

*From Baker et al. (1989)
Putting on a front button shirt or coat

Begin with short sleeves, if possible, since these are easier. Stand behind him when giving assistance. Try this out with other family members first because it is different than the way most people put on a shirt. Put a shirt on the bed and go through each step. Lay the shirt on the bed with the neck closest to you, and the front sides up. Open both sides of the front and lay them flat.

When first beginning, do all the steps with your son for 4 or 5 times, or until you feel comfortable with this method.

PROGRAM
1. Have him stand facing the collar of the shirt, which lies on the bed. As you guide him to lean over the shirt, say "Put your arms in". Guide both of his arms through the armholes and all the way through the sleeves. Now have him stand up.

2. His arms on the back side of the shirt. Place his hands so that they grasp the bottom of the shirt, which is now on top.

3. With your hands on his, guide him to lift his arms up and over his head, saying "Put the shirt over your head".

4. Remove your hands and his from the shirt and guide his arms down to his side. The shirt will fall into place.

5. Guide his hands to reach back, grasp the shirt, and finish pulling it down; say "Pull the back down".

6. Place his hands on each front edge of the shirt and assist him in pulling the shirt front together. Say "you put your shirt on".

Notes for teaching how to use a spoon:

Use a plastic bowl and place it on a damp paper towel. Use food that will stay on a spoon, such as mashed potatoes, oatmeal, applesauce, etc. Wait to teach how to use a fork until spoon is mastered. Use a chair that is high enough for him to eat from the table. Stand behind him and begin with hand over hand assistance until the sequence is clear to him (maybe 4 to 5 times).

Notes for teaching putting on socks:

Use a loose fitting sock, such as one of yours. Sit next to him on the bed, floor, or chair. Begin by pulling the sock up the his ankle. Help him put his thumbs inside the sock and pull it the rest of the way up. Gradually stop giving assistance at the end of the task.

*From Baker et al. (1989)
REINFORCEMENT AND POSITIVE ATTENTION

REINFORCEMENT

Reinforcement can be many different things. Each child may be reinforced by a variety of things, such as toys, food, hugs, tickles, games, clapping, positive attention, etc. Anything that increases a behavior can be called a reinforcer. We will focus specifically on positive attention as a way to increase behaviors in your child. For example, if your child complies with your directions, you want to praise him for complying so that he will be more likely to comply in the future.

POSITIVE ATTENTION

Your child, like all people, likes to get attention from others. Reinforcing your child with positive attention is a powerful way for parents to teach their children how to behave. Praising children when they behave is also an important way to help children feel good about themselves.

"Catch your child being good" is a way to provide instruction and guidance in a positive manner. Ask yourself if you pay more attention to your child when she behaves or misbehaves. If you are giving your child more of your attention for misbehaving, you may be reinforcing the bad behavior. Your child likes your attention, and if she knows she can get it by misbehaving, she may be more likely to misbehave.

TYPES OF POSITIVE ATTENTION

You can praise and reward your child's good behavior in different ways. You can use verbal praise by saying such things as "Thank you", "Good job", "Wow!", "All right!", "There you are", "Very nice", "You did such a good job", "You put the blocks away nicely", "That tower looks great", "I like it when you do what I tell you", or "Thank you for picking up the toys". You can also use physical gestures, such as hugs, kisses, clapping your hands, patting your child on her back, or tickling. You can also give rewards, such as food, activities, or toys; always give praise with rewards.

WHY IS REINFORCEMENT IMPORTANT?

Learning a new skill can be difficult for any child, and can be especially difficult for a child with special needs. Providing added motivation to learn (reinforcers) can be one way to help your child succeed in learning new tasks or increasing positive behaviors. The important relationship to remember is as follows: Behavior that is followed by a reinforcer (such as praise, hugs, favorite snack), is much more likely to happen again.
GUIDELINES FOR EFFECTIVE REINFORCEMENT & POSITIVE ATTENTION

1. **BE SPECIFIC**
   Your child needs to hear exactly what he did that you liked.

   Examples:
   "You sat down when I asked. Good job!"
   "Nice sitting!"
   "Thank you for putting the block in the basket!"
   "You came when I called you. I like it when you do what I ask."
   "Great job stacking the blocks!"

   You can also add more general praise, such as "Good job". "All right"

2. **BE IMMEDIATE**
   If you wait more than 5-10 seconds to praise your child, he may not connect his good behavior with your positive attention. By giving positive attention during and immediately after the behavior you wish to increase, you make your attention more effective.

3. **USE A VARIETY OF REINFORCERS**
   Especially when teaching a new skill, reinforcers are very important. For a child with special needs, learning can be a difficult and frustrating experience. However, learning can also be a pleasant experience where your child is motivated by his successes. To help motivate, reinforcers can be used with praise. Remember though that raisins or M&Ms may not be as motivating, if used each and every time. Also, when using snacks, use small amounts and pick times when your child is hungry or thirsty. In order to be most effective, keep a variety of choices available. Sometimes a hug and a kiss alone may be very effective, and sometimes the opportunity to play with a favorite toy may be very effective.

4. **USE GRANDMA’S LAW**
   Almost anything your child enjoys doing can be used as a reinforcer when teaching new skills. For example, if your child wants to play outside, you can say 'first pick up your toys, then you can play outside'. Grandma always said "If you eat all of your vegetables, you can have desert." In the same way you can use activities or toys that your child enjoys to help motivate him to learn new skills. He may be more willing to try zipping up his jacket if he knows that he can swing when he’s finished!

*Adapted from Baker & Brightman (1989), Sandra Harris (1976), and Mary Lou Kelley*
IGNORING

Your attention is powerful to your child. When he does not get enough attention from you for good behavior, he learns that bad behavior gets attention (and usually gets attention FAST).

Sometimes when a child misbehaves, parents repeat instructions, nag, and beg their children to obey. Although the parent is not praising the child, the child is still getting much ATTENTION; remember your attention is powerful to your child. Frequently this type of attention (repeating instructions, etc.) makes the child misbehave more.

If you ignore misbehavior instead of attending to it, you send a message to your child that he must behave well to get attention. Ignoring can also be an effective way to indicate to your child that if he does not behave appropriately, punishment will follow.

STEPS TO IGNORING

1. **Ignore Immediately**
   
   As soon as he misbehaves, immediately stop giving him attention. The message is that his specific behavior is not acceptable.

2. **Ignore Briefly**
   
   How long should you ignore? Two minutes. What if he does not start behaving within 2 minutes? Punish him. The message is that ignoring is a signal that punishment will follow if he does not change his behavior.

3. **Ignore Consistently**
   
   When you first start ignoring misbehavior, he may try harder to get your attention by misbehaving MORE. It will take a period of time for him to learn that he only gets your attention when he is agreeable, follows your instructions, and behaves appropriately.

4. **Make Ignoring Obvious**
   
   If he is to understand that his behavior is not acceptable, the ignoring must be obvious. Good, clear methods of ignoring include: walking away, not answering any questions, turning your back, or starting a conversation with another person.

5. **Make Ignoring Powerful**
   
   Remember that your child loves to get your attention. Ignoring will only be effective if you give him frequent positive attention for behaving appropriately. CATCH HIM BEING GOOD!!

*Adapted from Baker et al. (1989), Sandra Harris (1976), and Mary Lou Kelley*
USING TIME-OUT

Positive attention and ignoring are 2 ways to teach your child how to behave appropriately. Positive attention and ignoring sends the message to your child that he only receives attention for good behavior.

However, as you well know, there are times when ignoring would not be an effective or appropriate consequence. For example, if your child is harming another child or about to do something dangerous, you would not want to ignore. When ignoring is not appropriate or is ineffective, you can use time-out.

DEFINITION
Time-out is a punishment technique that involves removing your child from all enjoyable activities for a brief period of time. Time-out removes all potential reinforcement (parental attention, play toys, television, etc.).

Time-out should be done in a chair, room, or place that is free of reinforcers (i.e., BORING). Time-out occurs either immediately after ignoring a misbehavior, repeating an instruction, or immediately after a dangerous or harmful behavior. However, time-out is only effective when you give him frequent praise for appropriate behavior.

RATIONALE
Time-out is a powerful message that a specific behavior is inappropriate because it removes ALL POTENTIAL REINFORCERS. It quickly teaches that parents mean what they say. Also, time-out allows for a 'cooling off' period for both you and your child.

STEPS TO USING TIME-OUT

1. USE A BORING PLACE. The area should be well lit, free of dangerous objects, and as free from fun and enjoyable activities as possible. A time-out chair is often more useful for younger children. Try to use the SAME time-out place each time you use it. DO NOT USE A CLOSET.

2. FOLLOW NONCOMPLIANCE WITH ONE WARNING. Give the instruction (Clean up your toys). If he does not start to obey, follow with a warning (Clean up your toys or you will go to time-out). Big problem behaviors (running out in the street) should be immediately followed with a time-out without a warning.

3. MAKE TIME-OUT IMMEDIATE. After your instruction, wait 10 seconds. Then decide if you will give him additional assistance (pick up your toys like this) or give him one warning. If the warning does not work, use time-out immediately.

*Adapted from Baker et al. (1989), Sandra Harris (1976), and Mary Lou Kelley
Deirdre West Russell was born in Celina, Ohio, on September 4, 1968. She graduated from Grissom High School in Huntsville, Alabama, in 1986. She received her Bachelor of Science degree from Spring Hill College in Mobile, Alabama, in 1990. After college, she attended Louisiana State University to pursue graduate studies in the Clinical Psychology Program. She received her Masters of Arts degree in 1993. In 1993 she entered the doctoral program in the Clinical Psychology Program. In the spring of 1997 she will receive her degree, doctor of philosophy in psychology. She completed internship at the University of North Carolina at Chapel Hill in August, 1995. Deirdre currently lives in North Carolina with her husband.
DOCTORAL EXAMINATION AND DISSERTATION REPORT

Candidate:  Deirdre West Russell
Major Field:  Psychology


Approved:

[Signature]
Major Professor and Chairman

[Signature]
Dean of the Graduate School

EXAMINING COMMITTEE:

[Signatures]

Date of Examination:

11/6/96

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.