The relationship between maternal teaching techniques and young children's temperament in the cases of 20 children in a university laboratory school and their mothers was investigated. McDevitt and Carey's (1978) Behavioral Style Questionnaire was used to assess children's temperament by means of mothers' reports. Teaching behaviors of interest were assessed with the Maternal Teaching Observation Technique (Losa, 1980). Behaviors included inquiry, use of directives, negative verbal feedback, modeling, visual cues, physical affection, and positive and negative physical control. Correlational analyses revealed relationships between characteristics of children's temperament and the teaching techniques mothers used to teach the children. In comparison with others in the sample, children identified as slower to adapt had mothers who offered less praise and more negative verbal feedback. Mothers of children who were described as having a positive mood used less negative verbal feedback while teaching. Children with higher levels of distractibility had mothers who used more modeling. The lower the child's sensory threshold, the fewer the negative verbal comments by the mother and the more the visual cues by the mother. (RH)
Maternal Teaching Behaviors

and Temperament Disposition in Preschool Children

Carla B. Goble
Family Relations and Child Development
Oklahoma State University

Anne K. Bomba
Department of Home Economics
University of Mississippi

James D. Moran III
College of Human Ecology
University of Tennessee

The authors wish to thank the children and parents of the Oklahoma State University Child Laboratories for participating in this research project. Correspondence may be addressed to the first author, Department of Family Relations and Child Development, Oklahoma State University, Stillwater, OK 74078-0337.

Running Head: TEACHING AND TEMPERAMENT

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY Carla B. Goble"

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)"
Abstract

This research investigated the relationship between young children's temperament disposition and maternal teaching techniques. Twenty mother-child dyads from a university laboratory school participated as subjects for this project. Children's temperament was assessed by mother report with the Behavioral Style Questionnaire (McDevitt & Carey, 1978). Teaching behaviors, as assessed with the Maternal Teaching Observation Technique (Laosa, 1980a), were inquiry, directive, negative verbal feedback, modeling, visual cue, physical affection, positive physical control, and negative physical control. Correlational analyses revealed relationships between children's temperament characteristics and the teaching techniques employed by mothers to teach their preschool children.
Maternal Teaching Behaviors
and Temperament Disposition in Preschool Children

Research studies (Thomas & Chess, 1984; Thomas, Chess, & Birch, 1968) of children's styles of approaching and reacting to people and situations have identified nine aspects of temperament which appear soon after birth and remain relatively stable into adulthood. These research results and others (Thomas & Chess, 1977) suggest that temperamental differences between children are inborn.

Other studies (Amatea, 1988; Olweus, 1980) have demonstrated that relationships exist between child temperament characteristics and parental interaction patterns even by the time the child is 24 months (Lee & Bates, 1985). From this interplay of child temperament and parenting, a parent-child relationship develops that may modify, change or maintain the child's initial temperament behaviors and at the same time impact future child-environment interactions.

Other studies (Brophy, 1970; Laosa, 1978; Laosa, 1980b) have investigated the types of teaching strategies mothers use with their preschool children. However, studies have not explored if relationships may exist between mothers' teaching techniques and children's temperament disposition.

The purpose of this research was to provide a preliminary investigation of the teaching techniques that mothers use with their preschool children in relation to children's temperament characteristics. It was hypothesized that these relationships do indeed exist although the interactions may be complex.

Method

Subjects

The sample consisted of 20 mother-child dyads from a university laboratory school. Dyads were from middle to upper middle class, college educated homes. Children's ages ranged from 46 to 66 months ($\bar{x} = 51$ months). Nineteen of the dyads were from intact 2
parent families. One family initiated divorce proceedings after being recruited for the study. Eleven of the children were females and nine were males.

**Instruments**

Children's temperament was assessed with the Behavioral Style Questionnaire-BSQ (McDevitt & Carey, 1978). The BSQ is a 100 item questionnaire rated by one parent on a 6-point scale from 1 (almost never) to 6 (almost always) on the following characteristics: activity; rhythmicity; approach; adaptability; intensity; mood; persistence; distractibility; and threshold. A weighted procedure is used to obtain scores on each of the nine temperament dimensions (Field & Greenberg, 1982). The BSQ has a test-retest reliability of .89 and acceptable measures of internal consistency (Hubert, Wachs, Peters-Martin, & Gandour, 1982), with an alpha of .84 (Carey, Fox, & McDevitt, 1977).

The Maternal Teaching Observation Technique-MTOT (Laosa, 1978; Laosa, 1980a) was used to assess mother's teaching behavior. This instrument is designed to measure the occurrence of moderately stable attributes of maternal teaching behaviors while the mother and child interact with Tinkertoys. The specific maternal behaviors measured were inquiry, directive, negative verbal feedback, modeling, visual cue, physical affection, positive physical control, and negative physical control. Adequate reliability and validity (Laosa, 1980b) of the MTOT scales has been established.

**Procedure**

Each mother completed the Behavioral Style Questionnaire at home and returned it to the researchers prior to the teaching interaction sessions. Appointment times were scheduled for each dyad to come to the child laboratory research room for the videotaping of the teaching session. Videotaping took place through a one-way mirror. A microphone was attached to the video camera and suspended from the ceiling in the research room to enable the recording of the mother's and child's conversation. Subjects
were aware that they would be videotaped and all possible effort was made to ensure that the mother and child were relaxed in the test setting.

The mother and child were first given a warmup time to become acquainted with the play materials. The researcher gave the following instructions for the warmup session: "Here are some Tinkertoys for you and (child's name) to play with. I will be back in a few minutes." The warmup was also videotaped. After a seven minute period the researcher returned to the room and gave the following instructions to the mother: "I would like for you to teach (child's name) how to build an airplane with Tinkertoys. Here is an airplane that you may look at and use as a model, if you wish." The researcher then placed an airplane model made with Tinkertoys on the table. The Tinkertoys necessary for building the airplane model were available to the subjects. The researcher then left the room for another seven minute period. At the end of the teaching session the researcher returned to the room and asked the mother to move to another area of the room for debriefing.

Scoring

A trained observer scored the maternal teaching behaviors, as measured by the MTOT. Mother's behavior scores were obtained by recording the frequency of each behavior during the seven minute teaching session. The scoring of the BSQ was done independently to avoid possible bias.

Results

Correlational analyses demonstrated a number of relationships between children's temperament disposition scores as measured by the BSQ and the mothers' teaching techniques as measured by the MTOT. To control for possible Type I errors only correlations with $p < .01$ are reported.

Children's activity levels were correlated with mothers' use of visual cue while teaching, $r = -.55$, as was children's' threshold levels and mothers' use of visual cue, $r = -$.
.59. Relationships were found between children's adaptability and mothers' use of praise, \( r = -0.60 \), and negative verbal feedback, \( r = -0.55 \). Mood disposition, \( r = 0.55 \), and threshold levels, \( r = -0.51 \), were found to be related to mothers' use of negative verbal feedback. An additional relationship was found between children's distractibility disposition and mothers' use of modeling, \( r = -0.51 \). Analysis of the temperament variables of approach, rhythmicity, intensity and persistence yielded no significant correlations.

Discussion

The findings in this study suggest that relationships exist between mothers' teaching behaviors and children's temperament characteristics. Although explanation of these findings is largely post hoc, the demonstration of these relationships suggest important avenues for additional investigation and inquiry as bases for building theoretical foundations for future study of these interactions.

Several interesting findings emerged. The lower the child's sensory threshold (the more highly sensitive the child was to physical stimuli) the fewer negative verbal comments made and the more visual cues given by the mother. These children are highly aware of their physical surroundings. Mothers of these children may have attempted to facilitate their teaching by providing less negative verbal feedback and more stimulation through physical means (i.e., visual cue).

Children identified as slower to adapt had mothers who offered less praise and negative verbal feedback. Since these children make transitions more slowly mothers may have attempted to give more adaptation time during the teaching situation, and thus withheld both praise and negative feedback. On the other hand, these children may have been less involved with the task from the beginning providing fewer opportunities for parental feedback.

Mothers of children who were described as having a positive mood used less negative verbal feedback while teaching. These children could also be described as
pleasant and cheerful, and thus they elicited less negative feedback from their mothers. The children with higher levels of distractibility (i.e., changed behavior more readily in response to external stimuli) had mothers who used more modeling. This finding suggests that mothers of distractible children used modeling in an attempt to bring the child back to task and focus attention.

The present study provides information on the relation of maternal teaching techniques and children's temperament dispositions in middle and upper middle class families. How these teaching techniques impact the child's development and interaction in other environments is yet to be investigated. In light of the present and previous findings further research is needed to investigate the effects of behavior patterns established through parent-child teaching interactions and the child's adjustment and behavior in other contexts, especially the preschool and elementary school.
REFERENCES


