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THE COMBINED EFFECTS OF MODELING AND METACONVERSATIONAL INSTRUCTION
ON THE CONVERSATIONAL SKILLS OF LEARNING DISABLED CHILDREN

By

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B.A., University of North Dakota, 1982

Professional Paper

Presented in partial fulfillment of the requirements

for the degree of

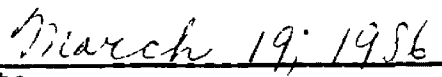
Master of Communication Sciences and Disorders

UNIVERSITY OF MONTANA

1986


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TABLE OF CONTENTS

	<u>Page</u>
INTRODUCTION	1
LITERATURE REVIEW	2
Language Deficits of Learning Disabled Children	3- 8
Intervention Techniques for the Pragmatic Difficulties of Learning Disabled Children	8- 9
Purpose of the Study	10-11
METHOD	11
Subjects	11-12
Procedure	12-16
Measurements Obtained	16
RESULTS	16
Modeling Task	16-20
Metaconversational Instruction Task	20
DISCUSSION	21
Limitations	21-22
Effects of Metaconversational Instruction and Modeling on the Conversational Skills of Learning Disabled Children	22-24
Summary and Implications	24
REFERENCES	25-28
APPENDICES	29-31

INTRODUCTION

An area of growing interest among researchers in the field of speech pathology is learning disabilities. Children with learning disabilities are defined as those children demonstrating at least average intelligence, intact sensory and emotional functioning and "a disorder in one or more of the basic psychological processes involved in understanding or using language, spoken or written, which may manifest itself in an imperfect ability to listen, think, speak, read, write, spell, or do mathematical calculations" (USDE, 1977 p. 65083). McKinney, McClure and Feaguns (1982) further described learning disabled children as less task oriented, more distractible, less extroverted, less creative, and less curious than nonlearning disabled children. A great deal of research in this area has been conducted on the identification of the language deficits demonstrated by learning disabled children and establish intervention techniques deemed effective in remediation of those deficits. It is with this body of research that this paper will be concerned.

LITERATURE REVIEW

The following literature review will be separated into three sections. The first section concerns Language Deficits of Learning Disabled Children. The language deficits of learning disabled children, as discussed in this paper, will be divided into two categories: that which is linguistic in nature consisting of difficulty with the morphological, syntactic and/or semantic abilities of language; and that which is social in nature consisting of difficulty understanding and interpreting the social aspects of language such as eye contact, nonverbal cues, the role of the listener, etc. This section will review the social and linguistic deficits demonstrated by learning disabled children and conclude with a discussion of the pragmatic competence of learning disabled children (i.e. the use of situationally and contextually appropriate language) and the implications for remediation of pragmatic deficits in the learning disabled child. The second section, Intervention Techniques for the Pragmatic Difficulties of Learning Disabled Children, will review the research conducted on intervention techniques specifically for the pragmatic deficits of learning disabled children. Although a great deal of research has been conducted on intervention with the overall linguistic and social deficits of learning disabled children, only that literature pertaining to the pilot study reported in this paper will be reviewed. Finally, the purpose of the pilot study and the author's hypothesis will be presented.

Language Deficits of Learning Disabled Children

Research has concluded that learning disabled children demonstrated deficits in linguistic abilities in the areas of morphology, syntax and semantics, including impairment in the comprehension and production of morphological and syntactic rules (Vogel, 1974; Wiig, Semel, and Crouse, 1973; Wiig and Semel, 1976), lexical retrieval (Wiig and Semel, 1980; Denckla and Rudel, 1976), and vocabulary development (Wiig and Semel, 1980). Morphological deficits observed in learning disabled children included impaired comprehension and production of word endings, i.e. suffixes, or parts of words, i.e. clusters, (Wiig, Semel and Crouse, 1973; Vogel, 1974). Specific syntactic difficulties have been noted with comprehension and interpretation of wh-questions, interrogative reversals, sentences containing demonstrative pronouns, passive sentences, sentences expressing relationships between direct, and indirect objects, and sentences with relative clauses (Semel and Wiig, 1975). In addition, Rosenthal (1970) found learning disabled children demonstrated difficulty processing spoken sentences of increased structural complexity (i.e. "The boy that is fat ran slowly."), and sentences involving negation (i.e. "She didn't have a sandwich."). Semantic difficulties found to be experienced by learning disabled children included difficulty in the following skills: interpreting multiple word meanings (e.g. "She broke the 'glasses'."); comprehending and producing vocabulary items from word classes including pronouns, nouns, verbs, and modifiers; understanding basic semantic concepts

(i.e. temporal sequences, comparative relationships); and interpreting verbal analogies, idioms, and metaphors (Wiig and Semel, 1980).

In addition to deficits in linguistic abilities, learning disabled children have been found to exhibit deficits in social development, as evidenced in research which concluded that learning disabled children, as a group, were more likely to be devalued by teachers, peers and parents than non-learning disabled children (Bryan and Sonnefield, 1981; Pearl and Cosden, 1982; Bryan, 1974). Interestingly, the rejection learning disabled students experienced from others did not appear to be related solely to academic difficulties. Observational studies in which adult strangers were asked to observe students on videotapes suggested that learning disabled students were perceived more negatively than nonlearning disabled students (Perlmutter, Crocker, Cordray and Garstecki, 1983). This suggested that learning disabled students were being socially rejected as a result of how they interacted with others rather than due to their academic performance or being subject to the label "learning disabled".

What, then, are the social behaviors exhibited by learning disabled children which may cause them to achieve low sociometric status and experience difficulty with social adjustment as compared to their nonlearning disabled peers? Investigation of learning disabled children's social development suggested that perhaps they experienced difficulty understanding the social rules underlying successful conversational interactions. Results of studies indicated that learning disabled children were less empathetic (Soenksen, Flagg, and Schmits, 1981) and less capable of taking the perspective of another

in a conversation (Wong and Wong, 1980) than nonlearning disabled children. In addition, learning disabled children exhibited difficulty interpreting nonverbal behavior, e.g. eye contact, smiling, (Bryan, 1977; Wiig and Harris, 1974; Bryan, Sherman and Fischer, 1980), displayed failure to fully enact the listener role in a conversation (Donahue, Pearl, and Bryan, 1980), and demonstrated lack of consequential thinking (Bruno, 1981). The results of these studies indicated that learning disabled children demonstrated difficulty acquiring the social skills necessary to become competent communicators.

Following a discussion of the linguistic and social deficits of learning disabled children, it is important to consider how these deficits affect their pragmatic competence. Pragmatic competence refers to how well children adapt their use of language to suit the needs of the context or situation (Dudley-Marling, 1985). Researchers agree that pragmatic competence is reflective of the interrelationship between linguistic development and social knowledge (Bates, 1976; Garvey, 1977, Ochs and Schieffelin, 1979). In light of the reported deficits exhibited by learning disabled children in both linguistic and social development, it seems reasonable to conclude that learning disabled children may be particularly at risk for deficits in pragmatic competence.

Research assessing the pragmatic skills of learning disabled children has not been conclusive. Investigations, on one hand, indicated that learning disabled children demonstrated less effective communication than nonlearning disabled children as evidenced by less

accurate responses during a referential communication task (Noel, 1980), and less effective communication during a task which involved teaching the game of checkers to an experimenter (Knight-Arrest (1984). However, contradictory conclusions have been revealed from additional studies. Investigators, on the other hand, concluded learning disabled children did not differ from non-learning disabled children in their ability to modify the complexity of their language as a function of listener status (Olsen, Wong, and Mark, 1983; Soesken, Flagg, and Schmits, 1981). It is pertinent to note that the design of the aforementioned studies limited the extent to which definitive information could be retrieved. For example, it could not be determined whether learning disabled children exhibited less effective communication due to linguistic deficits, social deficits, or a combination of both. In addition, all studies involved the assessment of language within an established setting or situation, rather than assessing language as it naturally occurs in conversational exchange which would be a true measure of pragmatic competence.

Observational studies have suggested that the social and linguistic deficits demonstrated by learning disabled children are evidenced in their conversational interactions. Learning disabled children were found less tactful (Bryan, Wheeler, Felcan and Henek, 1976) and less persuasive. In addition, these children were less likely to take the active role in conversation than nonlearning disabled children, (Bryan, Donahue and Pearl, 1981; Donahue, 1981). In addition, learning disabled children appeared less skilled at

producing speech which takes into account the listener's perspective (Bryan and Pflaum, 1978; Donahue, 1981; Noel, 1980; Spekman, 1981) than nonlearning disabled children. Again, it could not be determined from these studies if the deficits identified were due to linguistic, and/or social difficulties. Donahue, Pearl, and Bryan (1982) sought to determine if pragmatic difficulties evidenced in conversational incompetence consisting of reduced ability to initiate repair of a communicative breakdown were due to linguistic or social deficits. Results indicated that learning disabled children experienced difficulty with the pragmatic task of requesting clarification for inadequate messages in lieu of possessing the linguistic ability necessary to complete the task. In a similar study, Donahue (1981) investigated conversational competence by looking at learning disabled children's ability to appropriately modify requesting strategies according to listener status. Results indicated learning disabled children produced less appropriate requesting strategies than nondisabled children, even though their linguistic abilities for requesting were not deficient.

Although research has not been conclusive enough to establish the underlying characteristics of the pragmatic difficulties of learning disabled children, sufficient research has been conducted concluding that learning disabled children do exhibit deficits in conversational competence (Donahue, 1981; Noel, 1980; Spekman, 1981; among others). In addition, these results have illustrated the important role social knowledge plays in the development of pragmatic competence. Therefore, pragmatic competence appears to be a high priority for

intervention, and a reasonable means to target pragmatic abilities and enhance social development would be through the remediation of conversational skills.

Intervention Techniques for the Pragmatic Difficulties of Learning

Disabled Children

Few studies have been conducted in the area of intervention with the pragmatic skills of learning disabled children, yet, as previously established, the nature of the difficulties experienced by learning disabled children suggested that this is an area of high priority. Apparent is the fact that social knowledge is an important contributor to the development of pragmatic competence (Bates, 1976; Garvey, 1977). Research has been conducted on intervention techniques for the development of social skills in normal children (LaGreca and Sontogrossi, 1980; Oden and Asher, 1977) and children identified as socially isolated by teachers (O'Connor, 1969, 1972; Evers and Schwarz, 1973; Keller and Carlson, 1974). Findings indicated that modeling consisting of subjects observing positive social interactions was effective in improving interpersonal skills and increasing the frequency of peer interactions for both normal and socially isolated children. LaGreca and Sontogrossi (1980) also found modeling to be an effective therapeutic technique for elementary school children exhibiting deficits in social skills (i.e. abilities including "smiling, greeting, joining, inviting, conversing, sharing and cooperating, complimenting and grooming" p.220). Of the literature reviewed, only one study was found investigating remediation for social deficits of learning disabled children. LaGreca and Mesibov

(1981) again found modeling to be an effective technique in improving the social skills of learning disabled children including initiating social interactions and the use of "communication-conversation skills" (i.e. eye contact, speaking clearly, use of open-ended questions, topic continuence, and providing information about oneself).

As previously established, conversational skills appeared to be a deficit area for learning disabled children which resulted in pragmatic difficulties (Donahue, 1981; Bryan, Donahue and Pearl, 1981; Donahue, Pearl and Bryan, 1982). Research involving the remediation of conversational skills in learning disabled children is limited to one study. Donahue and Bryan (1983) found modeling to be effective in improving learning disabled children's conversational skills including use of open-ended questions, and use of conversational devices, comments and responses such as "uh-uh", "yeah," etc. In addition, the investigations tested the effects training had on the children's metaconversational knowledge, that is, their knowledge of the skills necessary to be effective conversationalists. Results suggested that the children recognized their difficulties in conversational interaction indicating that their conversational style was affected by an awareness of their deficiencies. These results exemplified the influence metaconversational knowledge may have on the conversational abilities of learning disabled children. Thus, metaconversational instruction as well as modeling may be effective intervention techniques for the remediation of the pragmatic deficits exhibited by learning disabled children.

Purpose of the Study

Presented in a previous section was the concept that pragmatic deficits appeared to be related to both linguistic processing deficits and the inability to understand the conversational rules of language (i.e. deficits in social knowledge). The purpose of this pilot study was to present a pragmatic approach to therapy concentrating on the social deficits exhibited in the conversational skills of learning disabled children. Conversational skills were previously established as a high priority for intervention with learning disabled children (Donahue, Pearl and Bryan, 1982; Donahue, 1980; Donahue and Bryan, 1983). The intervention procedure presented in this pilot study targeted the conversational skills (i.e. the ability to use the conversational rules of language) of learning disabled children. The therapy techniques employed included modeling and metacommunicational instruction. Modeling is a technique which does not rely on direct mimicry of each stimulus but instead relies on symbolic representation of the stimulus structure (Bandura, 1971). Generally modeling involves the presentation of a series of stimuli by the clinician, after which the child is asked to respond. Metacommunicational instruction involves using the knowledge one has of the rules that govern conversational discourse (i.e. not interrupting, taking the listener's perspective, etc.) as a method of teaching conversational skills. The conversational rules targeted will be further discussed in the methods section.

It was hypothesized that a pragmatic intervention approach using modeling in conjunction with metac conversational instruction as the therapy technique will improve the conversational skills of learning disabled children. It was not the author's intent to eliminate therapy directed toward linguistic deficits, only to present a therapy procedure that, when used in conjunction with linguistic intervention, may promote pragmatic development for learning disabled children.

METHOD

Subjects

Subjects were two boys in grades three and four, who were attending a summer language and learning disability program at the Cleveland Hearing and Speech Center, Cleveland, Ohio. Both were caucasian, monolingual native speakers of English and from middle-class homes. Each subject was identified by their school as learning disabled according to the criteria established in the Introduction of this paper. Based on this diagnosis, the subjects were enrolled in an intensive six-week program designed specifically for primary and secondary school-age children experiencing academic difficulties due to language based deficits and auditory processing problems. Therapy was provided four days per week and consisted of one-half hour of individual therapy, with one hour of group therapy and one hour of listening therapy focusing on auditory processing skills. Data for

this investigation were collected during the individual therapy sessions. The experimenter was also the clinician providing individual therapy.

Prior to commencement of the program, each subject was given a battery of tests assessing expressive and receptive syntactic and semantic skills, pragmatic abilities and reading abilities. The test battery consisted of the following tests: Test of Language Development-Intermediate (TOLD-I); Expressive One-Word Picture Vocabulary Test (EOWPVT); Peabody Picture Vocabulary Test-Revised (PPVT-R); the Woodcock Reading Mastery Tests and the Let's Talk Inventory for Adolescents. Table 1.0 presents results from the test battery and general subject data. In addition, parents of the subjects were asked to complete a pre-intake questionnaire to determine level of social status and motivation for each child. Both children were described as highly motivated in most academic and nonacademic activities. Parental report indicated both children experienced difficulty communicating with other children and adults on a social basis. Reportedly, both children most often socialized with children younger than themselves. Each subject attended a public grade school and received special services for reading at least one time per week. Neither child was receiving language therapy nor had received language at any time in the past.

Procedure

Therapy was conducted in individual therapy rooms within the Cleveland Hearing and Speech Center. The subject was seated at a table directly across from the clinician throughout each session.

Table 1. Subject Characteristics

Subject	Gender	Age	Ethnicity	SES	IQ ^a	PPVT-R Percentile Rank	EOWPVT Percentile Rank
1	Male	11	Caucasian	Middle Class	98	16	16
2	Male	10	Caucasian	Middle Class	102	52	73

Subject	Language ^b Production Quotient	Language ^b Comprehension Quotient	Overall ^c Reading Grade Level	Pragmatic ^d Ability
1	70	70	3.1	Over 1SD below the mean
2	94	91	2.1	Over 1SD below the mean

a. IQ scores were obtained from school records.

b. Tested utilizing the TOLD-I. Based on quotients ranging from 131-150 (superior); 116-130 (above average); 85-115 (average); 70-84 (below average); 50-69 (poor).

c. Tested utilizing the Woodcock Reading Mastery Tests.

d. Tested utilizing the Let's Talk Inventory for Adolescents. See Tables 2 and 3 for detailed description of pre-test results.

Sessions were 30 minutes in duration with 15 minutes of each session targeting syntactic, semantic and auditory processing deficits and the other 15 minutes targeting pragmatic deficits. For purposes of this study, only the pragmatic intervention will be discussed.

Session Format

The pragmatic activities for each session began with a metaconversational instruction task which involved discussion of the following conversational rules.

1. Do not interrupt. Each subject was encouraged to be a good listener. Being a good listener involved waiting until the speaker has finished speaking or has asked for information from you. The total number of inappropriate interruptions was recorded following each session.
2. Remain on topic. Each subject was reminded to always stay "on the track" and not to "branch off" in different directions. These metaphors were used along with drawings which symbolized deviating from topic (i.e. the branches of a tree growing in all directions). Each time the subject inappropriately deviated from the topic of conversation a new branch was drawn on the tree. The total number of branches were tallied and recorded following each session.
3. Watch for nonverbal cues (i.e. facial expressions and gestures). Subjects were presented with various nonverbal cues including smiling, nodding, frowning, fidgeting, etc., and asked to interpret them as positive or negative. Appropriate reactions to these cues were discussed, such as

acknowledging a negative cue and altering actions accordingly or reciprocating a positive cue such as smiling.

4. Realize the listeners' needs in the conversation. The subjects were reminded of the importance of orientating the listener to the topic (e.g. utilizing carrier phrases such as "I'd like to say something about..."). Also discussed was the need to provide adequate information which requires self-monitoring what is said to ensure the listener has understood, and providing additional information if necessary.

These rules were reviewed at the beginning of each pragmatic activity and stressed throughout the remainder of each session. Following review of these rules the modeling task was introduced. The modeling task consisted of a role playing activity and a referential task targeting one of the following pragmatic functions of communication: ritualizing; informing; controlling; and feeling (Wiig, 1982). See Appendix I for a summary of the breakdown of each category. One week (four sessions) was spent on each category.

The modeling task began with a role-playing activity. The clinician, first, introduced the situation (i.e. greetings, farewells, etc). A set of three pictures was then placed on the table in front of the subject. The clinician provided a model of an appropriate statement for each picture, thus assuming the speaker role. After the appropriate model was provided by the clinician the child was presented with a new set of pictures and asked to assume the speaker role. See Appendix II for a sample activity. This same format was followed for all situations and communicative functions. At the end of each week

the targeted situations were reviewed utilizing a referential task. A cardboard barrier was placed between the clinician and the subject. Both clinician and subject were given a set of five identical pictures, randomly chosen from those that had been previously presented that week. The subject was asked to state the situation and provide an appropriate statement for one of the pictures. Thus, allowing the clinician to identify the picture to which the subject was referring. Percent correct was recorded out of 10 pictures.

Measurements Obtained

The Let's Talk Inventory for Adolescents was utilized during the modeling task to assess pre- and post- therapy progress. This test procedure allowed for assessment through role-playing in both peer and adult contexts. Measurements obtained during the metaconversational instruction task consisted of establishing the total number of times a conversational rule was utilized per session. Although not quantified objectively, subjective judgements were also made on the subject's ability to self-monitor their use of the targeted conversational rules.

RESULTS

Modeling Task

The Let's Talk Inventory for Adolescents (Wiig, 1982) was utilized to assess progress. Table 2 presents pre- and post-test results. Each number represents total number of correct responses within the given communicative function category. Results can be compared to the

Table 2. Summary of Pre- and Post-test results utilizing the Let's Talk Inventory for Adolescents (Wiig, 1982)

COMMUNICATION FUNCTION	Subject 1		Subject 2	
	Pre-Test	Post-Test	Pre-Test	Post-Test
Ritualizing				
*Segment A	11	13	11	14
*Segment B	3	6	5	8
Informing				
Segment A	16	19	15	18
Segment B	6	10	8	12
Controlling				
Segment A	15	18	15	19
Segment B	10	14	9	14
Feeling				
Segment A	17	19	16	19
Segment B	6	10	7	13

*Segment A refers to within a peer context and Segment B refers to within an adult context.

Each number represents the total number of correct responses obtained.

Table 3. Overview of cutoff scores at 2 standard deviations and 1 standard deviation below the mean for each subject's age level.*

COMMUNICATION FUNCTION	AGE LEVELS				TOTAL POSSIBLE
	9-10 year olds 2SD	1SD	11-12 year olds 2SD	1SD	
Ritualizing					
Segment A	10	12	12	13	16
Segment B	4	7	6	8	16
Informing					
Segment A	16	18	16	18	20
Segment B	7	10	9	12	20
Controlling					
Segment A	16	18	16	18	22
Segment B	10	14	12	14	22
Feeling					
Segment A	16	18	16	18	22
Segment B	9	12	9	12	22

*Adapted from Wiig (1982) p. 47.

Table 4. Summary of interruptions and topic deviations per session pre- and post-intervention

Subjects	Pre-intervention ^a		Post-intervention ^b	
	Interruptions/Topic Deviations	Interruptions/Topic Deviations	Interruptions/Topic Deviations	Interruptions/Topic Deviations
1	4	5	0	1
2	2	3	0	0

a. Calculated during the first session.

b. Calculated during the last session.

normative data presented in Table 3. Progress was evident across all communicative functions. All post-test scores were within 2 standard deviations below the mean for Subject 1. All post-test scores for Subject 2 were within 1 standard deviation below the mean. Progress was indicated for each subject across both peer and adult contexts, however, Subject 1 continued to demonstrate some difficulty within an adult context.

Metaconversational Instruction Task

Both subjects demonstrated the ability to self-monitor use of the targeted conversational rules. This was evidenced by a reduction in the frequency of interruptions and topic deviations each session. Table 4 summarizes this data. Frequency of occurrence out of total number of responses was not calculated which affects the validity of these results. However, session format remained consistent throughout the program; thus somewhat controlling for the total number of opportunities available for responses during each session. Although objective measurement was not utilized to assess response to and use of nonverbal cues and the ability to take the listener's perspective, subjective judgement based on discourse exchange throughout each session suggested increased knowledge and use of these conversational rules.

DISCUSSION

Prior to interpretation and discussion of the results of this study, various limitations must be considered. Following discussion of limitations, the results will be addressed in terms of the effect the therapy procedures had on the subject's conversational skills. Summary and implications of the results will follow.

Limitations

This study was a pilot study and was subject to a variety of threats to validity and reliability. Threats to internal validity involved the absence of controls for maturation and subject history. Had these factors been controlled for, it could be determined whether the results obtained were attributable to the therapy administered or the subject's spontaneous recovery. In addition, threats to external validity were present affecting the extent to which the results could be generalized to other learning disabled children and other therapy programs. The presence of multiple treatment procedures (i.e. pragmatic, linguistic individual and group therapy) may have affected results. Also, the findings may be restricted to one setting due to the fact that generalization of results to various settings (i.e. clinical, school, home) was not examined. As a result, the progress demonstrated by the subjects may not be generalizable to outside the clinical setting. Reliability of test results and the examiner's coding of responses was not obtained; therefore, it is not known whether the subjects would have responded in the same manner if participating in this program at another time (test-retest

reliability), whether another experimenter would have obtained the same results (interjudge reliability), or whether the experimenter would have obtained the same results at a different time (intrajudge reliability). In light of the aforementioned limitations, caution should be exercised when interpreting the results of this study.

Effects of Metaconversational Instruction and Modeling on the Conversation Skills of Learning Disabled Children

The effects of this study suggested that the use of meta-conversational instruction in conjunction with modeling was an effective technique in facilitating development of conversational competence in learning disabled children. Donahue and Bryan (1983) suggested that learning disabled children's conversational style was influenced by their awareness of their conversational deficits (i.e. metaconversational knowledge). The findings of this study supported this fact and also exemplified the effectiveness of directly teaching metaconversational skills in an effort to improve conversational competence. Learning disabled children may be aware of the presence of their deficits; however, until these deficits are identified and explained to them, they will not have the knowledge base necessary for the development of self-monitoring skills. The learning disabled children involved in this study demonstrated increased self-monitoring of the conversational rules targeted. This suggested that meta-conversational instruction and modeling enhanced the development of self-monitoring skills which may facilitate generalization.

The results of this study not only indicated increased use of self-monitoring skills, they also indicated increased use of the

conversational rules targeted. However, it cannot be determined from this data whether progress was due to the effects of modeling, meta-conversational instruction or some other factor as previously addressed in the limitations section.

The results of this study also supported the conclusion of Donahue and Bryan (1983) that modeling is an effective intervention technique to promote the use of conversational rules in learning disabled children. Through the use of modeling and metaconversational instruction, the subjects demonstrated increased use of various communicative functions of language including: controlling; feeling; informing; and ritualizing. Increased use of these functions was evident when role-playing in both peer and adult contexts which suggested that generalization across contexts might be achieved through modeling activities. In addition, by altering the stimulus pictures for the subjects in role-playing activities, the experimenter ensured that the subjects were not merely imitating the model. Instead they appropriately used the targeted communicative functions in response to new stimulus pictures; thus demonstrating knowledge of the rules governing use of the various communicative functions. Both subjects demonstrated minimal difficulty comprehending and using these rules which suggested that the remediation techniques may not have actually taught the rules, but simply demonstrated how to use abilities already existing in the subject's repertoire of skills. This finding is in support of the hypothesis that learning disabled children may have certain conversational skills within their repertoire, however, do not have the social knowledge necessary to

perceive when to use these skills (Donahue and Bryan, 1983). Through modeling and metac conversational instruction learning disabled children may be able to learn to identify the situations in which use of these conversational skills would be appropriate, therefore increasing the probability that they will appropriately use these skills in the future.

Summary and Implications

The findings of this study supported the experimenter's hypothesis that the use of modeling in conjunction with metac conversational instruction would be an effective remediation technique for the development of conversational skills of learning disabled children, however, the presence of limitations should cause the reader to view this conclusion with caution. The findings emphasized the importance of considering pragmatic targets in intervention, although the importance of, and need for, linguistic therapy should not be overlooked. In addition, pragmatic intervention should include direct remediation of conversational skills in both peer and adult contexts.

A final implication of these findings relates to the assessment of conversational competence and the evaluation of progress following intervention. The use of communicative functions within both adult and peer contexts through the use of role-playing appeared to be an effective means for assessment, however, this should be utilized in conjunction with assessment of spontaneous behaviors, which would be a true representation of pragmatic competence. In addition, progress should be evaluated in a variety of settings and with various people, rather than relying solely on role-playing within a structured setting for generalization.

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APPENDIX I

COMMUNICATIVE FUNCTIONS

Breakdown of communicative functions into specific categories used in pragmatic activities. (Adapted from Wiig, 1982)

CONTROLLING

Stating Preference
Commanding
Suggesting/Negotiating
Questioning for Permission/Intention
Refusal
Warning
Promise

FEELINGS

Endearment
Exclamation
Approval/Agreeing
Disapproval/Disagreeing
Congratulating
Apologizing
Blaming

INFORMING

Questions
Affirmative Response
Denial Response
Rejection Response
Evasion Response

RITUALIZING

Greetings/Farewells
Calls
Initiating Conversation
Introductions
Telephoning

APPENDIX II
SAMPLE ACTIVITY

Communicative Function: Ritualizing
Situation: Greeting

INTRODUCTION TO ACTIVITY

Clinician: "Today we are going to talk about ways to say 'hello' to different people."

CLINICIAN IN SPEAKER ROLE

Three pictures are presented and described by the clinician. An appropriate statement is provided with each picture.

Example Pictures:

Picture 1 (two boys)

Description: This is Bill and Joe. They are friends and have just seen each other for the first time that day.

Statement: Bill said to Joe, "Hello Joe. I haven't seen you all day. How are you doing?"

Picture 2 (one boy, 1 adult)

Description: This is Bill and his teacher Ms. Winter. Bill has just arrived at school.

Statement: "Good morning Ms. Winter."

Picture 3 (one boy, mother and father)

Description: This is Bill with his mother and father. His parents have just returned from a trip. Bill has not seen them for two weeks.

Statement: "Hi mom and dad. Welcome home. I've missed you!"

SUBJECT IN SPEAKER ROLE

Three new pictures are presented depicting new situations. The clinician tells the subject that it is his turn.

Example Pictures:

1. Two boys passing on the sidewalk.

2. One boy and a store clerk.
3. A boyscout selling candy to his neighbor.

The subject is then asked to make a statement for each picture.

Criteria for advancement: If the statement is appropriate, verbal reinforcement is provided (e.g., "That was good. That was exactly what I would have said.") If the statement provided by the child is inappropriate, an appropriate statement is modeled and a new set of pictures is presented.

Criteria for moving on to a new situation is three out of three appropriate statements.