DOCUMENT RESUME

ED 301 000 EC 211 297

AUTHOR Mathinos, Debra A.; Wypych, Marydel
TITLE Conversational Engagement and Children with Learning Disabilities: A Little Give and a Lot Less Take.
PUB DATE Apr 88
NOTE 34p.; Paper presented at the Annual Conference o the American Educational Research Association (New Orleans, LA, April 5-9, 1988).
PUB TYPE Speeches/Conference Papers (150) -- Reports - Research/Technical (143)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS *Communication Skills; Comparative Analysis; Elementary Education; Intelligence; *Interaction; *Interpersonal Communication; Interpersonal Competence; Junior High Schools; *Learning Disabilities; Peer Acceptance; *Peer Relationship; Responses; Self Concept; Self Esteem; Student Behavior; *Student Reaction
IDENTIFIERS *Conversation

ABSTRACT

The purpose of this study was to characterize the nature of conversational engagement evidenced by 30 learning-disabled and 30 nondisabled children while they participated in a semi-structured dyadic interaction. Also investigated were the relationships among the levels of engagement employed by the elementary or junior high students and their self-perceptions of social acceptance, behavior/conduct and self-worth, and general intellectual functioning as evidenced by IQ scores. Dyads were established by matching the disabled and nondisabled subjects with same-age, same-sex nondisabled partners; dyads were asked to choose one topic from a list of five topics and discuss it for 10 minutes. Study results provide partial support for the hypothesis that the conversations of nondisabled subjects, as compared to those of disabled subjects, exhibit a wider range of engagement levels in terms of both responsiveness and information, as well as generally higher levels of responsiveness and information overall. Although the learning-disabled subjects could and did employ engagement-producing and maintaining utterances similar in sophistication to those of their nondisabled peers, they did so less consistently and with less frequency. Possible explanations for the study's results are presented. (JDD)

CONVERSATIONAL ENGAGEMENT AND CHILDREN WITH LEARNING DISABILITIES: A LITTLE GIVE AND A LOT LESS TAKE

Debra A. Mathinos & Marydel Wypych

University of Rochester

Presented at the Annual Meeting of the American Educational Research Association, New Orleans, April, 1988

Debra Mathinos is an Assistant Professor and Marydel Wypych a Doctoral candidate at the Graduate School of Education and Human Development, University of Rochester, Rochester, NY, 14627

CONVERSATIONAL ENGAGEMENT AND CHILDREN WITH LEARNING DISABILITIES: A LITTLE GIVE AND A LOT LESS TAKE

Debra A. Mathinos & Marydel Wypych
University of Rochester

The communicative abilities of children with learning disabilities have been the focus of much research in recent years (e.g., Bryan, Donahue, Pearl & Sturm, 1981; Donahue & Bryan, 1983). One reason for this attention has been the belief that differences in communicative abilities may account for the social difficulties evidenced by this population (e.g., Bryan & Bryan, 1978; Bryan, Donahue & Pearl, 1981). Although the generalizability of the findings of the research on the discourse skills of learning disabled childrens has been questioned on the basis of design and/or methodological flaws (Dudley-Marling, 1985), the body of this work suggests that some differences do exist between the skills employed by these children and those of children without disabilities (e.g., Donahue & Bryan, 1983; Speckman, 1983). While they seem to be generally similar to nondisabled children in terms of having the capacity to produce the same types of utterances while in a conversation, learning disabled children apparently employ this range of utterances less consistently, appropriately and flexibly across interactions (e.g., Feagans, 1983; Speckman, 1981). Additionally, it appears that they do not display an appreciation of the use and importance of

and amount of information, or "conversational ammunition," an utterance provides to the conversational partner, as well as the degree to which a specific utterance is responsive to the task, topic or theme under discussion. This view suggests a continuum of conversational engagement that, (in accord with Wells, MacLure & Montgomery, 1981), runs somewhat counter to traditional orientations that consider conversational properties as dichotomous in nature: for example, local vs. global relevancy (Halliday & Hasan, 1976; Kintsch & Van Dijk, 1978) or the retrospective vs. prospective properties of utterances (Sinclair, 1975).

The purpose of this study was to characterize the nature of conversational engagement evidenced by learning disabled and nondisabled children while they participated in a semi-structured dyadic interaction. Additionally, the relationships among the levels of engagement employed by subjects and their self-perceptions of social acceptance, behavior/conduct and self-worth, and general intellectual functioning as evidenced by IQ scores, were investigated. These affective and cognitive factors were of interest due to the belief that they influence conversational behaviors.

It was hypothesized that the conversations of nondisabled subjects would exhibit a wider range of engagement levels in terms of both responsiveness and information, as well as generally higher levels of responsiveness and information overall, as compared to those

and amount of information, or "conversational ammunition," an utterance provides to the conversational partner, as well as the degree to which a specific utterance is responsive to the task, topic or theme under discussion. This view suggests a continuum of conversational engagement that, (in accord with Wells, MacLure & Montgomery, 1981), runs somewhat counter to traditional orientations that consider conversational properties as dichotomous in nature: for example, local vs. global relevancy (Halliday & Hasan, 1976; Kintsch & Van Dijk, 1978) or the retrospective vs. prospective properties of utterances (Sinclair, 1975).

The purpose of this study was to characterize the nature of conversational engagement evidenced by learning disabled and nondisabled children while they participated in a semi-structured dyadic interaction. Additionally, the relationships among the levels of engagement employed by subjects and their self-perceptions of social acceptance, behavior/conduct and self-worth, and general intellectual functioning as evidenced by IQ scores, were investigated. These affective and cognitive factors were of interest due to the belief that they influence conversational behaviors.

It was hypothesized that the conversations of nondisabled subjects would exhibit a wider range of engagement levels in terms of both responsiveness and information, as well as generally higher levels of responsiveness and information overall, as compared to those

produced by disabled subjects. Further, it was expected that subjects' self-perceptions would be most strongly related to their scores for the Responsiveness component of conversational engagement, while their IQ scores would be most strongly related to their scores for the Information component.

Method

Subjects

Sixty children (30 learning disabled and 30 nondisabled) drawn from elementary and junior high classrooms in three working class/middle class suburban school systems participated. Children with learning disabilities were selected from self-contained learning disabilities classrooms, and had been identified for special services on the basis of the New York State Education Department's (1980) definition of a learning disability. This definition is discrepancy based in that children are identified as experiencing a learning disability if they exhibit at least a 50% discrepancy between expected and actual achievement that can not be accounted for by sensory impairments, emotional, or cultural factors. In addition, the learning disabled children who participated in this study were not classified as being primarily language impaired. Normally achieving participants were chosen from regular elementary and junior high school classes in the

same school districts and were matched with learning disabled participants for sex, age (+/- 3 months), and IQ (+/- 10 points). These nondisabled children also had no prior history of having received special educational services. Finally, 60 normally achieving children chosen according to the selection criteria used for the nondisabled subjects participated as partners to the 60 target children. Detailed information concerning subject characteristics is presented in Table 1.

Insert Table 1 About Here

Procedures

Dyads were established by matching the disabled and nondisabled subjects with same-age, same-sex nondisabled partners. Subjects and partners were asked if they had ever been in a class together with those answering in the affirmative being identified as "acquainted". Dyads were given a list of five topics (movies, television, music, sports, and hobbies) and were instructed to choose one topic to discuss for a period of 10 minutes. Participants were informed that they could, as a pair, choose any of the 5 topics as long as they would be able to discuss it for the full 10 minutes. The conversations took place in a room away from other children, and relatively free from disturbing noises. The investigator was in the room with the target

child and his or her partner throughout the interaction. Conversations were audio taped for later transcription.

Measures

Information concerning subjects' communicative abilities, affective characteristics and cognitive processing skills was gathered by four measures. Communicative skills were assessed through a coding of the conversations produced during the semi-structured dyadic interaction. Affective characteristics were measured through the use of Harter's Self-Perception Profile for Children (1983). Finally, information concerning IQ and cognitive processes was derived from their performance on the WISC-R (1974) for the learning disabled children and from the Cognitive Abilities Test (1982) for the nondisabled children.

Scoring

Semi-Structured Dyadic Interaction: The transcribed discussions were initially coded according to the 17 items that comprised the dyadic interaction coding scheme. Based on a modification of the coding employed by French, Sobel, and Boynton (1985), and Mathinos (in press), this measure is designed to capture the range of utterance types that characterize a child's ability to initiate and maintain a conversational interaction. The 17 utterance types making up this coding scheme are presented in more detail in

Appendix A. Coding of the transcribed conversations was conducted by two raters blind to subject status. Interrater reliability was obtained on a random sample of 20% of the transcripts and ranged from .83 to 1 on individual items, with an overall reliability of .90.

Following this coding, two protocols were used to score transcripts for evidence of conversational engagement. The first protocol categorized specific utterance types according to the degree of responsiveness they evidenced. An increasing hierarchy of responsiveness to task, theme/topic, and preceeding utterance was used to classify utterances. As can be seen in Table 2, utterances types were assigned a value of 1-5 based on their placement in the hierarchy. The second protocol categorized utterances in terms of the nature of the information they provided. For this, utterances were arranged in an increasing hierarchy ranging from those that provided the minimum response needed to avoid conversational failure to those that actively elicited information from the partner. For this protocol, utterances were assigned a value of 1-7 on the basis of their placement within the hierarchy (See Table 2).

Insert Table 2 About Here

After utterances were assigned values for Responsiveness and Information a score representing the

average of the utterances within one turn was calculated so that each individual turn produced by the participants received one score for Responsiveness and one score for Information. For the purposes of this study a turn was defined as an unbroken sequence of one child's utterance. A sequence was considered unbroken if less than 3 seconds of silence separated two utterances produced by one child. A turn was considered terminated by either more than 3 seconds of silence or by the onset of the partner's utterance. The scores used in the statistical analyses reported here were those assigned at the turn, rather than individual utterance level.

Self-Perception Profile for Children: Items on the "Self-Perception Profile for Children" were scored on a 4-point scale with 4 indicating the most adequate self-judgment and 1 representing the least adequate self-judgment (Harter, 1983). In order to minimize presentation bias items within each subscale are counter balanced such that three items are worded with the most adequate statement on the left and three items are worded with the most adequate statement on the right. The three subscales that were of interest to this study, social acceptance, behavior/conduct and self-worth were scored according to this scale, and resulted in each subject receiving 3 separate scores.

Measures of Cognitive Ability: The score obtained by each nondisabled subject for General Cognitive Ability on the CAT was taken from school records for use in the study. For the learning disabled subjects, Full Scale IQ scores from the WISC-R were obtained from school records.

Results

Statistical analyses to determine group differences in the responsive and Information components of conversational engagement and the relationship between these components and cognitive and affective factors consisted of a series of two-way analyses of variance (ANOVAs), T-tests, Chi squares and multiple correlations.

Responsiveness: A 2 (Group: Learning disabled, Nondisabled) x 2 (Role: Target subject, Partner) ANOVA was conducted on the Responsiveness scores received by each member of the dyad to determine differential subject and partner performance as a function of the subject's group membership (disabled, nondisabled). This analysis yielded both a main effect for Group, F (1,119) = 197.13, $p<.001$, and Role, F (1,119) = 8.59, $p<.01$. A significant Group x Role interaction effect was also found for Responsiveness, F (1,119) = 5.054, $p<.05$.

As can be seen in Table 3, dyads comprised of nondisabled subjects received much higher Responsiveness scores than did those containing subjects with learning

disabilities. In terms of role, partners received the higher Responsiveness score within their dyad regardless of group membership of the dyad's subject. It is important to note however, that the greatest difference in scores between subject and partner occurred in the dyads with learning disabled subjects, whereas differential performance between the nondisabled subjects and their partners was slight. The differences in the mean scores obtained by subjects and partners within dyads were found to be significant for dyads containing disabled subjects ($T(2,58) = 2.47$, $p<.05$) but not for dyads with nondisabled subjects ($T(2,58) = .307$, $p>.10$).

Insert Table 3 About Here

Chi square analyses were conducted to investigate group differences in the frequency with which participants employed utterances along the varying levels of the Responsiveness hierarchy. Information concerning the frequency with which participants produced utterances at the different levels is presented in Table 4. Significant group differences were found not only at the general, dyad level, but also more specifically, between subjects and between partners as a function of the subject's group membership. At the dyadic level, participants in the dyads containing a disabled subject most frequently produced utterances at levels 3 and 2 as compared to those in dyads made up of

nondisabled subjects which most frequently produced utterances at levels 4 and 5 ($X^2 = 965.28$, $p<.001$).

Insert Table 4 About Here

More specifically, subjects with learning disabilities were found to most frequently employ level 3 and 1 utterances while nondisabled subjects employed those at levels 4 and 5 ($X^2 = 497.17$, $p<.001$). A pattern of use similar to that at the dyadic level was found for the partners. That is, the highest proportion of utterances produced by the partners of subjects with disabilities were at levels 3 and 2, while those of the partners of nondisabled subjects were predominantly at levels 4 and 5 ($X^2 = 545.19$, $p<.001$). Finally, differences in the levels of Responsiveness evidenced by the utterances of participants within dyads were examined. Significant differences in the frequency of utterances at the varying levels were found between both the learning disabled subjects and their partners ($X^2 = 144.86$, $p<.001$) and between the nondisabled subjects and their partners ($X^2 = 16.81$, $p<.01$).

Multiple correlations were conducted to examine the relationships between the cognitive and affective factors of interest and subjects' scores for Responsiveness. Although no significant correlation was found between subjects' IQ

and their scores for the Responsiveness component of engagement (disabled subjects: r = .105, p>.10; nondisabled subjects: r = .229, p>.10), statistically significant positive correlations were found between the learning disabled subject's scores on the Harter scale, and their scores for conversational Responsiveness. For these subjects, Responsiveness scores were found to correlate with self-perceptions of social acceptance (r = .775, p<.01) as well as with self-perceptions of self worth (r = .720, p<.01). No significant relationship was found between the disabled subjects' self-perceptions of behavior/conduct and their conversational Responsiveness scores (r = .164, p>.10). Additionally, the scores obtained by the nondisabled subjects on the Harter subscales did not significantly correlate with their scores for conversational Responsiveness (social acceptance: r = .271, p>.10; behavior/conduct: r = .100, p>.10; self-worth: r = -.151, p>.10)

Information: A 2 (Group: Learning disabled, Nondisabled) x 2 (Role: Target subject, Partner) ANOVA was conducted on the Information scores received by each member of the dyad to determine differential subject and partner performance as a function of the subject's group membership (disabled, nondisabled). As was the case with the Responsiveness component of conversational engagement, this analysis yielded both a main effect for Group, F (1,119) =

84.89, $p<.001$, and Role, F (1,119) = 44.09, $p<.01$. A significant Group x Role interaction effect was also found for Information, F (1,119) = 247.10, $p<.001$.

As can be seen in Table 5, the dyads comprised of nondisabled subjects received higher Information scores than did those containing subjects with learning disabilities. Within dyads, partners received the higher Information score regardless of subjects' group membership with the greatest difference in scores between subject and partner within a dyad again occurring in the dyads with learning disabled subjects. The difference in the mean Information scores obtained by participants in these dyads was found to be significant ($T(2,58) = 12.15$, $p<.01$). Differential performance between the nondisabled subjects and their partners on the Information component, although significant ($T(2,58) = 2.18$, $p<.05$), was less pronounced.

Insert Table 5 About Here

Group differences in the frequency with which participants employed utterances along the varying levels of the Information hierarchy were investigated through a series of Chi square analyses. Table 6 shows the frequency with which participants produced utterances at the different levels of the hierarchy. Significant group differences were again found at the general, dyad level, as well as between

subjects and between partners as a function of the subject's group membership. At the dyadic level, participants in the dyads containing a disabled subject employed utterances most often at levels 4, 3 and 1, whereas the utterances produced by participants in dyads made up of nondisabled subjects were most frequently at levels 5, 4 and 2 ($X^2 = 255.76$, $p<.001$)

Insert Table 6 About Here

In terms of subject behaviors, those with learning disabilities were found to most frequently employ level 2, 1 and 3 utterances while nondisabled subjects employed utterances more frequently at levels 5, 4 and 3 ($X^2 = 410.29$, $p<.001$). As reported for Responsiveness, a subject's group membership again appeared to differentially influence partner performances. That is, the highest proportion of utterances produced by the partners of subjects with disabilities were at levels 4, 3 and 5, while those of the partners of nondisabled subjects were predominantly at levels 2, 1 and 5 ($X^2 = 305.85$, $p<.001$). Finally, differences in the levels of Information evidenced by the utterances of participants within dyads were examined. Again, significant differences in the frequency of utterances at the varying levels were found between both the learning disabled subjects and their partners ($X^2 =$

554.97, $p<.001$) and between the nondisabled subjects and their partners ($X^2 = 93.78$, $p<.01$).

Finally, the relationships between cognitive and affective factors and subjects' scores for Information were examined through multiple correlations. Again, no significant correlation was found between subjects' IQ and their scores for Information (disabled subjects: $r = .289$ $p>.10$; nondisabled subjects: $r = .195$, $p>.10$). Additionally, no significant relationships were found between the scores obtained by either the disabled or nondisabled subjects on the Harter subscales and scores for Information (disabled - social acceptance: $r = .210$, $p>.10$; behavior/conduct: $r = .194$, $p>.10$; self-worth: $r = .078$, $p>.10$ - nondisabled - social acceptance: $r = -.08$, $p>.10$; behavior/conduct: $r = -.14$, $p>.10$; self-worth: $r = -.186$, $p>.10$)

Discussion

The results of this study provide partial support for the hypothesis that the conversations of nondisabled subjects, as compared to those of disabled subjects, exhibit a wider range of engagement levels in terms of both Responsiveness and Information, as well as generally higher levels of Responsiveness and Information overall. Although the conversations of the nondisabled subjects in this study did receive higher mean Responsiveness and Information

scores than did those produced by the disabled subjects, all subjects displayed the ability to produce utterances across all levels of both the Responsiveness and Information hierarchies. What appears to distinguish the subjects of this study then is not differences in access to types of utterances representing varying levels of engagement, but rather, the use of these utterances throughout the course of the conversational interaction.

Although the learning disabled subjects studied here could and did employ engagement producing and maintaining utterances similar in sophistication to those of their nondisabled peers, they did so less consistently and with less frequency. This resulted in conversations that typically provided only the minimum amount of information necessary to avoid a complete conversational breakdown, were only slightly more responsive and engaging than a monologue, and influenced the responsiveness and informativeness of their partners' conversations. The question remains as to why, if they possess more sophisticated means of engaging in a conversational interaction, the learning disabled subjects did not employ them in this task.

One possible explanation is that children with learning disabilities do not have available to them, or do not know how to employ the strategies needed to monitor and maintain their own behavior (e.g., Torgesen, 1979, 1980), especially the metapragmatic skills needed for conversational

interactions (Hook, 1976). If this were the case one might expect the performance of the disabled children to be more comparable to that of nondisabled children during the initial phases of an interaction. However, over the course of the interaction the use of conversational maintenance strategies would become more sporadic, and less like those employed by nondisabled children. That is, while the level of engagement evidenced in the conversations of nondisabled children would be somewhat stable over the course of the interaction due to the use of maintenance strategies, the level of engagement in the conversations produced by children with learning disabled children would vary over the course of the interaction due to difficulties in maintaining a consistent amount of engagement.

The result of such engagement maintenance difficulties would be similar to that reported here in that disabled children would display the range of engagement levels yet still have a performance that, on average, is less sophisticated than their nondisabled peers. Post-hoc analysis of the transcripts did not identify such a pattern, however. In fact, no clear pattern(s) of engagement over the course of the conversational interaction were found for either the disabled or nondisabled children.

An alternative explanation for the results of this study centers around the disabled subjects' knowledge of strategies used in conversational interactions and the goals

they hold for such interactions (Carlson, 1987; Renshaw & Asher, 1983). For example, Donahue (1985) argues that the communicative style of children with learning disabilities does not necessarily reflect deficiencies in skills or rule knowledge. Rather, their style may reflect the selection of strategies that meet an alternative set of norms and goals for participation in interactions. The more limited use of engagement-supporting utterances by learning disabled children may reflect a purposeful selection of a "safe" interaction style that does not place excessive demands on the disabled child or allow for rejection from a peer and may, in fact, place the disabled child in control of the interaction.

Some support for this explanation can be found in the results reported here. First, the high, positive correlations between level of Responsiveness and self-perceptions of social acceptance and general self-worth suggests that affective factors influence communicative behavior. If, for example, a child does not believe that she is accepted by her peers, she may choose to protect herself be rejecting the other (i.e., being minimally responsive) before she is rejected. Additionally, if a different set of goals are in operation, and one assumes that goals are in part set through prior experiences, one might expect contextual differences in the performance of disabled children. That is, various settings or partners

may carry a differential history for disabled children, with the more positive prior interactions resulting in more sophisticated conversational skills.

Again, some support can be found in this study in that being acquainted with one's conversational partner was found to correlate with levels of conversational engagement. For the disabled subjects, prior acquaintance and level of Responsiveness, as well as level of Information were significantly, positively correlated (Responsiveness: $r = .898$, $p<.01$; Information: $r = .746$, $p<.01$). This type of relationship was not found for the nondisabled subjects (Responsiveness: $r = .253$, $p>.05$; Information: $r = -.619$. $p<.01$). It is interesting to note that for the Information component, group differences in its relationship to familiarity are pronounced. The nondisabled subjects' performance appears to support the notion of shared knowledge between conversational partners whereas that of the disabled subjects runs counter to the tenet of information exchange central to Grice's (1975) "Cooperative Principle." Is it that disabled subjects lack the knowledge of such a principle, or is it that they have different goals for their conversational interactions? Unfortunately, the present study was not designed to address this question.

Conclusion

In conversations, one can overlook a little "give" if one's utterances are awarded enough "take." In this study, disabled subjects not only failed to give sufficiently, but also to take. The results reported here suggest that future research should focus on learning disabled children's knowledge of conversational interaction strategies, how these children select conversational goals and the manner in which they employ engagement-supporting utterances to achieve these goals. Additionally, the manner in which the use of conversational strategies and the selection of goals differ as a function of setting and/or conversational partner must be explored. Given the influence of conversational skills on the social life of children, coupled with the relation between a child's social skills and his/her educational experience and opportunities (Ysseldyke, Algozzine, Shinn & McGue, 1982), such explorations will prove informative to the education of learning disabled children.

References

Brinton, B. and Fujiki, M. (1984). Development of topic manipulation skills in discourse. Journal of Speech and Hearing Research, 27, 350-358.

Bryan, T., & Bryan, J. (1978). Social interactions of learning disabled children. Learning Disability Quarterly, 1, 33-38.

Bryan, T., Donahue, M., & Pearl, R. (1981). Learning disabled children's peer interactions during a small group problem-solving task. Learning Disability Quarterly, 4, 13-22.

Bryan, T., Donahue, M., Pearl, R., & Sturm, C. (1981). Learning disabled children's conversational skills - the "TV talk show". Learning Disability Quarterly, 4, 250-259.

Carlson, C. (1987). Social interaction goals and strategies of children with learning disabilities. Journal of Learning Disabilities, 20(5), 306-311.

Donahue, M. (1985). Communicative style in learning disabled children: some implications for classroom discourse. In D. Ripich and F. Spinelli (Eds.) School Discourse Problems (pp.97-124). San Diego, CA: College Hill Press.

Donahue, M., & Bryan, T. (1983). Conversational skills and modeling in learning disabled boys. Applied Psycholinguistics, 2, 213-234.

Donahue, M., Pearl, R., & Bryan, T. (1980). Learning disabled children's conversational competence: Response to inadequate messages. Applied Psycholinguistics, 1, 387-403.

Dudley-Marling, C. (1985). The pragmatic skills of learning disabled children: a review. Journal of Learning Disabilities, 18(4), 193-199.

French, L., Sobel, K., & Boynton, M. (1985, April). Partner and setting: Important discourse variables. Paper presented at the annual meeting of the American Educational Research Association, Chicago, IL.

Grice, H. (1975). Logic and conversation. William James Lectures, Harvard University, 1967, unpublished. Lecture 2 published in P. Cole and J. Morgan (Eds.), Studies in syntax, Volume III (pp.111-145). New York: Seminar Press.

Halliday, M. and Hasan, R. (1976). Cohesion in English. London: Longman.

Harter, S. Supplementary Description of the Self-Perception Profile for Children Revision of The Perceived Competence Scale for Children. Unpublished Manuscript, University of Denver, 1983.

Hook, P. (1976). A study of metalinguistic awareness and reading strategies in proficient and learning disabled readers. Unpublished doctoral dissertation, Northwestern University.

Kintsch, W. and Van Dijk, T. (1978). Toward a model of text comprehension and production. Psychological Review, 85, 363-394.

Mathinos, D. (in press). Communicative competence of children with learning disabilities. Journal of Learning Disabilities.

New York State Education Department Commissioner's Regulations, 2-200, Learning Disability Definition, (1980).

Renshaw, P. and Asher, S. (1983). Children's goals and strategies for social interaction. Merrill-Palmer Quarterly, 29(3), 353-373.

Riverside Publishing Company. (1982). Cognitive Abilities Test: Technical Manual. Chicago: Author.

Schank, R. (1977). Rules and topics in conversation. Cognitive Science, 1, 421-444.

Schiffrin, D. (1985). Conversational coherence: The role of "well". Language, 61.

Sinclair, J. (1975, August). Discourse in relation to language structure and semiotics. Paper presented to Burg Wartenstein Symposium 66: Semiotics of Culture and Language, Vienna, Austria.

Speckman, N. (1981). Dyadic verbal communication abilities of learning disabled and normally achieving fourth - and fifth - grade boys. Learning Disability Quarterly, 4, 139-151.

Speckman, N. (1981). Discourse and pragmatics. In C. Wren (Ed.) Language Learning Disabilities (pp. 157-215). Rockville, MD: Aspen System Corporation.

Stubbs, M. (1983). Discourse Analysis: The Sociolinguistic Analysis of Natural Language. Chicago: The University of Chicago Press.

Torgesen, J. (1979). Factors related to poor performance on memory tasks in reading disabled children. Learning Disability Quarterly, 2, 17-23.

Torgesen, J. (1980). Conceptual and educational implications of the use of efficient task strategies by learning disabled children. Journal of Learning Disabilities, 13, 364-371.

Wechsler, D. (1974). The Wechsler Intelligence Scale for Children - Revised. New York: The Psychological Corporation.

Wells, G., MacLure, M. and Montgomery, M. (1981). Some strategies for sustaining conversations. In P. Werth (Ed.) Conversation and Discourse (pp.73-85). London: Croom Helm, Ltd.

Wilson, T., Wiemann, J. and Zimmerman, D. (1984). Models of turn-taking in conversational interaction. Journal of Language and Social Psychology, 15, 159-183.

Ysseldyke, J., Algozzine, B., Shinn, M. and McGue, M. (1982). Similarities and differences between underachievers and students classified learning disabled. Journal of Special Education, 16, 73-86.

Table 1:

Subject Characteristics

	Learning Disabled	Nondisabled
Age	Range: 9 yr 1m - 12 yr 11m $\bar{X}$: 10 yr 9 mo	Range: 9 yr - 12 yr 9 m $\bar{X}$: 10 yr 6 m
Full IQ	Range: 83 - 123 $\bar{X}$: 98.5	Range: 91 - 125 $\bar{X}$: 104.5
Sex	Male: 14 Female: 16	Male: 14 Female: 16
Grade	Gr. 4: N=14 Gr. 5: N=8 Gr. 6: N=8	Gr. 4: N=13 Gr. 5: N=10 Gr. 6: N=7

Table 2:

Hierarchies for Scoring Utterances

Responsiveness

Increasing in responsive from:
Task - Theme - Partner's Utterance

Score	Utterance Type
1	Off Topic Comment
2	Filler; On Topic Comment; Projective 1; Regulator 1
3	Assertion; Projective 3; Regulator 2; Reinforcer
4	Projective 2; Regulator 3
5	Contingent Response with Expansion; Followup; Projective 4; Regulator 4; Simple Contingent Response; Turnabout

Information

Increasing in amount of information from:
Minimum Needed for Continuance - Elaboration - Eliciting from Other

Score	Utterance Type
1	Filler; Off Topic Comment; Reinforcer; Regulator 1
2	Assertion; Regulator 3; Simple Contingent Response
3	On Topic Comment
4	Contingent Response with Expansion
5	Followup; Regulator 2
6	Projectives 1-4
7	Regulator 4; Turnabout

Table 3:

Mean Responsiveness Scores by Group and Role

Dyads with Learning Disabled Subjects	Mean Score
Subjects	2.50
Partners	2.81

Dyads with Nondisabled Subjects	Mean Score
Subjects	3.53
Partners	3.56

Table 4:

Frequency of Levels of Responsiveness by Group and Role

Dyads with Learning Disabled Subjects

	Subjects	Partners
Level 1	314 (25.5%)	89 (7%)
Level 2	258 (21%)	321 (25.1%)
Level 3	479 (38.9%)	610 (47.7%)
Level 4	107 (8.7%)	219 (17.1%)
Level 5	72 (5.9%)	40 (3.1%)

Dyads with Nondisabled Subjects

	Subjects	Partners
Level 1	72 (6%)	103 (7%)
Level 2	179 (14.9%)	241 (16.3%)
Level 3	265 (22.1%)	249 (16.8%)
Level 4	418 (34.8%)	497 (33.6%)
Level 5	266 (22.2%)	390 (26.4%)

Table 5:

Mean Information Scores by Group and Role

Dyads with Learning Disabled Subjects	Mean Score
Subjects	2.57
Partners	3.69

Dyads with Nondisabled Subjects	Mean Score
Subjects	3.75
Partners	3.29

Table 6:

Frequency of Levels of Information by Group and Role

Dyads with Learning Disabled Subjects

	Subjects	Partners
Level 1	332 (27%)	114 (8.9%)
Level 2	412 (33.5%)	89 (7%)
Level 3	198 (16.1%)	350 (27.4%)
Level 4	156 (12.7%)	467 (36.5%)
Level 5	74 (6%)	159 (12.4%)
Level 6	47 (3.8%)	88 (6.9%)
Level 7	11 (.9%)	12 (.9%)

Dyads with Nondisabled Subjects

	Subjects	Partners
Level 1	159 (13.3%)	274 (18.5%)
Level 2	145 (12.1%)	298 (20.1%)
Level 3	193 (16.1%)	232 (15.7%)
Level 4	213 (17.8%)	250 (16.9%)
Level 5	345 (28.8%)	258 (17.4%)
Level 6	122 (10.2%)	164 (11.1%)
Level 7	23 (1.9%)	4 (.3%)

Appendix A:
Dyadic Interaction Coding Scheme

Assertion: an utterance that comments on or asserts the truthfulness of one's own or one's partner's preceeding utterance

Simple Contingent Response: an utterance that refers to the partner's immediately preceeding utterance but does not include any additional information. These typically are responses to a question, or a "personalization" of the partner's previous utterance (Ex.: I have a green house; mine is blue)

Contingent Response with Expansion: an utterance that refers to the partner's immediately preceeding utterance but goes beyond the minimum expected response. These utterances typically include additional information or provide an elaboration of the theme/subtopic under discussion.

Fillers/False Start: Portions of statements that do not clearly contain a complete idea or such words as "umm...", "like..."

Followup: an utterance that repeats or restates a previous utterance that had been met either by silence or the use of a conversational regulator

Off Topic Comment: any utterance that does not address the chosen topic (i.e., music, movies, television, sports or hobbies)

On-Topic Comment: an utterance that keeps to the chosen topic but is not contingent on the preceeding utterance. These most typically occur when the conversation is shifted to a new sub-topic or theme.

Projective: an utterance that is on topic and which implies or demands a response from the partner - these may or may not be in the form of questions. Four levels of projectives were identified for this study, and differ from one another as a function of the degree to which they are responsive to the theme and/or the partner's previous utterance.

Regulator: an utterance that acts to establish or maintain the conversational interaction. They typically indicate a communicative "breakdown", or establish or comment on general conversational rules. Four levels of regulators, differing in terms of how explicitly they are responsive to the theme, and whether information is provided, were identified for the study.

Appendix A:
Dyadic Interaction Coding Scheme, continued

Reinforcer: an utterance that displays a person's awareness of the interaction but provides no information or indication of responsiveness.

Turnabout: an utterance that both responds to an immediately preceeding utterance and implies or demands a verbal or nonverbal response from the partner. Turnabouts are made up of contingent responses, with or without expansion, and projectives.