QUALITY OF THE INTERACTION DURING

PARTNER READING

by

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(Under the direction of Dr. Paula Schwanenflugel)

ABSTRACT

Partner reading is a classroom reading strategy used to increase the amount of time children spend orally reading connected text. The aim of this study was to identify factors that affect the quality of the partner reading interaction for the purpose of providing teachers with empirically based strategies for organizing, managing, and implementing partner reading. Previous research exploring paired and partner reading served as a basis for identifying variables that might affect the quality of the reading interaction. Essential elements of cooperative interactions were extracted from the cooperative learning literature and were used to create an observational rating scale for evaluating the quality of the partner reading interaction. 43 pairs (86 children) of second grade students and 10 classroom teachers were observed during partner reading. An effect was found for partner selection, teacher instruction, and teacher monitoring for social cooperation, and an ability pairing strategy X ability discrepancy interaction was found for on-task behavior.

INDEX WORDS: Partner reading, Paired reading, Cooperation, Essential elements, Reading fluency

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TABLE OF CONTENTS

Page

# CHAPTER 1: INTRODUCTION

The development of fluent reading skills is a primary educational goal for elementary school-aged children. Partner reading, a form of paired reading, is a classroom strategy used to facilitate the development of fluent reading skills. In partner reading, children are paired together for the purpose of supporting each other through the oral reading of connected text. Partners listen, follow along, and provide needed words or assistance while taking turns reading from the same text. Typically, each child reads every other page. This strategy is used primarily to increase the amount of time children spend orally reading connected text (Stahl, Heubach, & Crammond, 1997). It is also used as an alternative to individual repeated readings as a means of facilitating the development of fluent reading (Kuhn & Stahl, 2000). Additionally, partner reading provides an opportunity for teachers to monitor children's reading progress by listening to the children read to their partners (Kuhn & Stahl, 2000).

Paired reading, a variant of partner reading, was originally developed by Morgan (1976) as a tutoring strategy for parents to use with their children at home (Topping & Lindsay, 1992a). Variations of paired reading have been used as a tutoring procedure with parents (DeAngelo, Reents, & Zombactz, 1997; Murad & Topping, 2000; Topping, 1989; Topping & Lindsay, 1992b), teachers (Topping & Lindsay, 1992b), and peers (Topping, 1987b; Topping & Lindsay, 1992b). Paired reading generally involves a more able reader (such as a parent, peer, or teacher tutor) reading simultaneously with a less able reader. If the child feels confident that he or she can read independently, then the

child gives the tutor a signal and proceeds to read the text independently. Incorrect or unknown words are provided after four seconds or so after which simultaneous reading resumes (Topping, 1987a; Topping, 1992a).

Research suggests that paired reading is an effective tutoring strategy for improving reading skills when used by parents, teachers, or peers. Topping and Lindsay (1992b) reviewed outcome research from studies of parent, peer, or teacher implemented paired reading. Participation in paired reading was associated with fewer reading refusals, fewer errors, greater self-corrections of errors, greater use of context, and better use of phonics skills (Topping & Lindsay, 1992b). More recent studies of parent implemented paired reading have reported significant improvement in reading comprehension and fluency (DeAngelo, et al., 1997; Murad & Topping, 2000). Benefits of paired reading are not limited to the tutee. Topping (1987b) reviewed outcome data for 10 peer tutored paired reading projects. When data on tutors' reading skill was collected, both tutees and tutors demonstrated gains in reading. Additionally, follow-up data suggested that gains were maintained after tutoring was terminated.

Although paired reading and partner reading share an essential component, their procedures differ. Whether used by parents, teachers, or peers, paired reading strategies involve the pairing of a more capable reader (the supporter) with a less capable reader (the reader) for the purpose of providing support and practice reading connected text. The support and assistance provided by the more capable reader not only facilitates the reading of higher-level texts, but also provides an opportunity for participant modeling and reinforcement of reading behavior (Topping & Lindsay, 1992). Essentially, partner reading *extends* the role of the supporter and the reader to both participants. Unlike paired

reading, the partner reading script includes a turn taking procedure. Turn taking requires that the children alternate the role of the reader and the supporter page by page throughout reading the text. Also, in partner reading children read independently rather than simultaneously, which allows the teacher to monitor the individual children's reading progress. Lastly, partner reading is a classroom rather than a tutoring strategy, used to facilitate the development of reading fluency.

Unlike paired reading, the efficacy of partner reading has not been examined in depth. Partner reading is primarily used to facilitate the development of fluent reading skills by providing an avenue for implementing either repeated readings of text or providing practice reading connected text. Research suggests that the repeated exposure of words through repeated readings of text (Martinez & Roser, 1985; Rasinski, 1991; Samuels, Scherner, & Reinking, 1985) as well as practice reading connected text (Taylor, Frye, & Maruyama, 1990) facilitates the development of fluent and automatic reading. Several aspects of the partner reading procedure may also be beneficial for the development of children's reading skills. For example, alternating the role of reader and supporter between the children allows both participants to benefit from support and practice in reading connected text. Additionally, partner reading can be used with an entire class or a smaller group, making it a widely applicable and flexible classroom strategy. Lastly, the mutual support required by partner reading also gives children opportunity for cooperative interactions with peers within a structured environment.

Although a few studies have examined partner reading, some variation in the purpose and conceptualization of partner reading exists across these studies. Partner reading is one component of Fluency-Oriented Reading Instruction (FORI), a reading

program designed to stress reading fluency and automatic word identification in second grade students (Stahl, Heubach, & Crammond, 1997). The partner reading procedure used in FORI mirrors the partner reading procedure described in this study. Children were grouped in pairs, took turns reading, and provided help to one another as needed. Student versus teacher chosen pairing varied throughout the year. Implementation of FORI was found to produce significant gains in reading achievement over the course of a school year.

Dixon-Krauss (1995) also examined partner reading as a classroom strategy for improving reading skills in a multi-grade (1st and 2nd grade) classroom. However, partner reading was conceptualized differently than in the present study. Teachers matched more capable readers with less capable readers. While one child read the story, the other listened. Children did not switch roles during partner reading. Then, the children answered comprehension questions and wrote journal entries together. Improvement in word identification and minimal improvement in reading fluency was observed. Another study investigated partner reading as a strategy for developing reading fluency in third-grade students, and compared its effectiveness to a comprehension oriented strategy (Vaughn, Charad, Bryant, Coleman, Tyler, Linan-Thompson, & Kouzekani, 2000). Similar to Dixon-Krauss (1995), in this study a more capable reader (partner 1) was paired with less capable reader (partner 2). First, partner 1 read the story aloud, modeling fluent reading to the other, less capable reader. Then, partner 2 read the story. Each child alerted his or her partner to errors, listened, and provided feedback and unknown words. Significant improvement for reading rate was observed.

Paired repeated reading has been used to provide children practice with reading connected text (Koshinen & Blum, 1986). Although paired repeated reading is a variation of paired reading, the inclusion of turn taking makes its procedure very similar to that of partner reading. Children paired together alternate playing the roles of the listener and reader. Each child reads a passage aloud three times, after which their partner provides feedback about their reading. Then the children switch roles (Koshinen & Blum, 1986). One investigation of the effectiveness of paired reading in a 1st grade classroom also utilized a turn taking procedure (Muldowney, 1995). Emergent readers were paired with more capable readers. Children alternately read pages of the text and helped each other with unknown words. Unknown words were also recorded in a notebook. Significant gains in reading skills were observed in paired versus unpaired children. Lastly, partner reading, perhaps due to its structured yet social nature, has been used to reduce and prevent behavioral maladjustment in primary school-aged children (Boyle, Cunningham, Heale, Hundert, McDonald, Offord, & Racine, 1999). Partner reading in conjunction with social skills training may produce moderate effects in reducing or preventing behavioral maladjustment.

Little research has been conducted to investigate variables that affect the quality of either paired or partner reading interactions. Although a few studies have provided suggestions for how to teach, manage, and organize paired or partner reading, little empirical evidence for these suggestions is available to date. For example, Topping (1989) suggested that teachers maintain a moderate ability differential between tutors and tutees and provided guidelines for how to identify children as tutors and tutees. It was also suggested that teachers consider the existing relationships and personalities of the

children when pairing the children. Teacher monitoring during paired reading sessions was also posited as essential (Topping, 1989). However, no empirical data was presented to support these recommendations. Koshinen & Blum (1986) suggested that, to insure success in paired repeated reading, students must not only understand the basic procedure of paired reading, but also know how to listen to their partners, make positive remarks to their partners, and select appropriate reading material. However, no data was presented to support these suggestions. The effects of student- versus teacher-selected partner reading pairings on reading improvement have also been examined (Stahl, Heubach, & Cramond, 1997). The type of pairing was not found to affect the oral reading error rate of children during partner reading. The quality of the relationship shared by children prior to partner reading was found to not only influence children's choice of a partner, but also how effectively students interacted with one another during partner reading. Children were found to choose partners primarily on the basis of friendship. Additionally, student-selected pairings made decisions and settled disagreements quickly, provided assistance to one another effectively, and were seldom interrupted by off-task behavior. However, these findings were based on qualitative rather than quantitative results.

Although a few studies have made suggestions on how to organize and implement partner or paired reading, little evidence exists to support these recommendations. The aim of this study was to identify variables that contribute to successful partner reading interactions for the purpose of providing teachers with empirically based strategies for managing/organizing partner reading in the classroom. Teacher monitoring, student- versus teacher-selected partners, friendship, teacher use of an ability discrepancy strategy, and the reading level or ability of the children paired together have been posited

as factors that may affect the quality of the paired or partner reading session. However, other variables such as the gender and race of the pair, as well as the amount of initial teacher instruction in partner reading may also affect this interaction. Specifically, the relationship between these variables (teacher monitoring, student- versus teacher-selected pairings, friendship, reading level or ability of the pair, gender and race of the pair, and the level of initial instruction) and the quality of the interactions between children during partner reading sessions will be examined in this study. The cooperative learning literature will serve as a framework for evaluating the quality of the partner reading interaction.

Quality of Partner Interactions in Academic Settings

Cooperative learning is a widely used instructional technique based on structuring learning experiences to facilitate student interaction and achievement. Essentially, cooperation means that children work together for the purpose of accomplishing common or shared goals (Johnson & Johnson, 1992). In this respect, partner reading can be thought of as a type of cooperative learning interaction. In partner reading, children take turns reading, listening, and supporting each other so that they might accomplish the oral reading of a selected text.

The efficacy of cooperative learning strategies has been demonstrated in numerous studies. For example, Johnson and Johnson (1989) reviewed over 520 experimental and 100 correlational studies comparing cooperative, competitive, and individualistic learning contexts. Johnson and Johnson (1989) concluded that cooperative learning resulted in greater academic achievement and productivity, greater interpersonal attraction and social support, as well as greater self-esteem and psychological health

compared to individualistic or competitive efforts. Other research has also reported cooperative learning to be associated with academic achievement and social attitudes or relations (Johnson & Johnson, 1991; Johnson, Maruyam, Johnson, Nelson, & Skon, 1981; Stevens & Slavin, 1995).

An abundance of research exists to suggest that cooperative learning experiences enhance social, emotional, and academic outcomes; however, its effectiveness appears to be mediated by certain conditions (Johnson & Johnson, 1992). For the benefits of cooperative learning to emerge several features must be present in the interaction: positive interdependence, face-to-face promotive interaction, individual accountability, social skills, and group processing (Holubec, Johnson, & Johnson; 1995, Johnson & Johnson, 1999). These essential features identified in the cooperative learning literature will be used as a framework from which to approach evaluating the quality of the partner reading interactions.

To my knowledge, one study to date has examined the effects of implementing of all the five basic elements of cooperative learning in the classroom. Student teachers participating in a cooperative learning course underwent specific instruction on how to implement each of the five basic elements in cooperative classroom activities (Veenman, Van Benthum, Bootsma, Van Dieren, & Van Der Kemp, 2002). Observations revealed that four out of the five essential features, including positive interdependence, face-to-face interaction, social skills, and group processing, were being more effectively implemented after the student teachers participated in the course. Significant increases were observed in the pupils' engagement rates (levels of time-on-task behavior in the classroom) in classrooms for which student teacher received instruction on the

implementation of these essential components (Veenman et al., 2002). However, separate investigations have demonstrated that one essential feature, positive interdependence, affects both individual achievement and group productivity (Johnson, Johnson, & Stanne, 1989; Mesch, Lew, Johnson, & Johnson, 1986).

Positive interdependence occurs when group members are linked in such a way that the individual cannot succeed unless the other members of the group succeed, as well (Holubec, Johnson, & Johnson, 1995; Johnson & Johnson, 1999). Group success is only achieved through the coordinated efforts of all the members of the group. Positive interdependence is commonly viewed as the most key element in cooperative activities; without it, cooperative interaction does not take place (Johnson & Johnson, 1992). The structure of the task determines how the individuals are cooperatively linked. In partner reading, the turn taking procedure requires the children to alternate the role of reader and supporter. Successful completion of the reading task requires that both children successfully negotiate and participate in their alternating roles. For example, helping behavior exhibited by the supporter such as providing an unknown or difficult word ensures that both readers (and therefore the group) will successfully complete the reading task. However, if one or both partners do not fulfill his or her role as the supporter, then unknown or difficult words might cause the reading interaction to break down.

Face-to-face promotive interaction emphasizes positive interaction among group members such that they support, help, and encourage one another (Holubec, et al., 1995; Johnson & Johnson, 1999). Positive and negative social processes can either promote or interfere with cooperative interactions and learning. In partner reading, children are paired together so that they may provide assistance and positive social support to one

another. For example, children can support and encourage each other when struggling through text by making positive verbal comments such as “that’s right,” or nonverbally through nodding, leaning forward, and listening. However, negative comments such as “why can’t you get it” or nonverbal behavior such as rolling the eyes or looking away may not only cause conflict, but may directly interfere with role of the supporter in the interaction.

Individual accountability is crucial in cooperative learning mainly to ensure that all members of a group contribute to the group task or goal (Holubec et al., 1995; Johnson & Johnson, 1999). In partner reading, participation of both children is a vital component of the turn taking script. If one child isn’t participating in their role of the reader or the supporter, then the partner reading interaction breaks down. Teacher monitoring is often used as a means of ensuring individual accountability during partner reading sessions.

For cooperative learning to take place, children must also possess the social skills required to cooperatively interact with their group members. Skills in communication, conflict management, leadership, and trust building are a few of the social skills children must learn (Holubec, et al., 1995; Johnson & Johnson, 1999). Because children often do not engage in discussions while partner reading, trust building and conflict management seem most relevant to negotiating the interaction. For example, children must be able to negotiate disagreements over who reads first or whose turn it is to read quickly and smoothly so that the reading interaction is not interrupted.

Lastly, group processing involves discussing how the group members interacted with one another after a task has been completed (Holubec et al., 1995; Johnson &

Johnson, 1999). This allows for problems to be solved and improvement in the group interactions to be made. This may or may not be done in partner reading. In this study, no post-reading group processing activities were implemented by any teachers.

One variety of cooperative learning, scripted cooperative interaction, highlights the importance of social interaction during cooperative activities. In scripted cooperative interactions, children are assigned alternating roles that usually correspond to specific cognitive activities (O'Donnell, 1999). For example, in partner reading, children are assigned the role of the reader or the supporter, and then alternate this role throughout the reading activity. The imposition of such a specific structure on the children's interaction is believed to not only enhance learning, but to also eliminate negative social processes that can occur in a group setting (O'Donnell, 1999). For example, the imposition of a script on cooperative learning activities has been found to increase metacognitive activities such as comprehension monitoring and error detection (Hall, Dansereau, O'Donnell, & Skaggs, 1989), increase the acquisition of text material (Hall, Rocklin, Dansereau, Skaggs, O'Donnell, Lambiotte, & Young, 1988), consistently outperform (Larson, Dansereau, O'Donnell, Hythecker, Lambiotte, & Rocklin, 1985), and generate greater positive affect related to studying (O'Donnell, Dansereau, Hall, & Rocklin, 1987) compared to when students work or study alone. Additionally, less structured cooperative groups have been associated with greater status differentiation within the group (Holtz, 1994) as cited in O'Donnell (1999). However, one of the principal effects of differential status, unequal participation, may be prevented by the alternating of roles between individuals as required in scripted cooperation. Because partner reading is

scripted and structured, it should promote positive social interactions and on-task behavior.

Behavioral observations have rarely been utilized within the cooperative learning literature as a means to explore the social interactions occurring within the cooperative group. Researchers investigating computer-based cooperative activities have targeted the interaction of participants as a possible explanation for inconsistent or lower than expected effects for computer-based techniques (Sherman & Klien, 1995; Susman, 1998). For example, one study examined nine different types of interaction behaviors including summarizing, explaining, asking for help, identifying errors, helping behavior (i.e., giving solicited and unsolicited help, checking for understanding, and offering verbal agreement), and off-task behavior (Sherman & Klien, 1995). Helping behavior, positive social comments, negative social comments, and transmissions (reading the lesson plan from the computer screen) were observed in another study to examine the impact of ability grouping on discourse during a computer-based cooperative activity (Hooper, 1992).

Another investigation of a computer-based cooperative activity utilized observations of positive and negative social interactions, task-related interactions including participants' statements and questions, and maintenance interactions including participants' encouragement of one another and comments pertaining to group organizational matters (King, 1989). Behavioral observations were also utilized in an investigation of the relationship between help-seeking and help-giving behavior in scripted dyads with varying degrees of structure imposed on the interaction (Bobier, 1997) as cited in O'Donnell (1999). Specifically, four types of behaviors were observed

including instances where help was sought and provided, help was sought but the request was ignored, help was offered and accepted, and where help was offered but rejected.

Some variation exists in the specific interaction behaviors that are typically observed by researchers investigating cooperative interactions. However, across studies several general categories of importance have emerged: helping behavior, on-task and off-task behavior, and behavior pertaining to the social interaction. These behavioral categories also reflect concepts emphasized by several of the essential components of cooperative learning. For example, positive interdependence means that group members are connected in such as way that one individual cannot succeed unless the other members of the group succeed, as well (Holubec, et al., 1995; Johnson & Johnson, 1999). In partner reading, the job of the supporter is to help the reader when he or she experiences difficulty reading the text or negotiating the turn taking procedure. Helping behavior such as providing unknown words, helping decode unknown words, or helping one's partner find the correct page ensures that both individuals (and therefore the group) will successfully complete the reading task. Therefore, observations of helping behavior in partner reading are necessary to capture whether positive interdependence is taking place.

Individual accountability ensures that all group members are engaged in the group task. In partner reading, participation of both children is a vital component of the turn taking script. Nonparticipation of one or both children would result in failure to complete the reading task. Observations of on-task and off-task behavior are necessary to capture whether both partners are participating in the task. In partner reading, on-task behavior is

shown by listening, reading along, and taking-turns with one's partner. Off-task behavior occurs when children engage in any behavior unrelated to the partner reading activity.

Face-to-face promotive interaction emphasizes the importance of positive exchanges among group members for promoting cooperative interaction and achievement. Since positive and negative social processes can either promote or impede the cooperative interaction and learning, the occurrence of positive and negative social behaviors are important to document. In partner reading, part of the role of the supporter is to provide positive emotional and social support to the reader. Positive emotional or social support is shown by positive or encouraging verbal comments or through positive nonverbal communication such as smiling, leaning forward, and nodding as one's partner reads. Negative interactions during a partner reading session might include negative verbal comments such as "you're stupid" or less obvious nonverbal communications such as looking or turning away from one's partner.

Another essential feature of cooperative learning, group processing, involves discussing how the group interacted after completing a task. Group processing allows the children to discuss what occurred in the cooperative interaction, provide each other with feedback, and hopefully thereby improving future group interactions. However, group processing is often absent from partner reading activities. This investigation of partner reading did not involve such post-reading activities; therefore, observations of group processing behaviors in this study are not warranted.

Lastly, group members need to possess the social skills necessary for the successful completion of the specific cooperative activity. Often, cooperative activities require a variety of social skills needed for negotiating group discussions such as

leadership skills, communication skills, conflict management skills, and trust-building skills. Partner reading does not involve discussions or manipulation of complex concepts, but rather the negotiation of alternating roles with one's partner. Therefore, one social skill, the ability to successfully negotiate conflict, seems most relevant to partner reading. In partner reading, successful conflict management might be shown by partners resolving disagreements over who begins reading first or whose turn it is to read quickly such that the conflict does not interfere with the quality of the reading interaction.

Drawing from the essential elements of cooperative learning, several behavioral categories including helping behavior, on-task and off-task behavior, positive and negative social interaction, and conflict management appear to be most crucial to the partner reading interaction.

Purpose of the Present Study

The aim of this study was to identify factors that affect the quality of the partner reading interaction for the purpose of providing teachers with empirically based strategies for organizing, managing, and implementing partner reading. Previous research exploring paired and partner reading served as a basis for identifying variables that might affect the quality of the reading interaction. Teacher monitoring, student- versus teacher-selected pairings, friendship, reading level or ability of the pair, and the amount of initial instruction about partner reading were identified as variables potentially important to the partner reading interaction. Essential elements were extracted from the cooperative learning literature. These concepts were used to identify behavioral categories most relevant to the success of partner reading interactions. Four behavioral categories or dimensions were identified: helping behavior, on-task and off-task behavior, emotional or

social supportiveness, and conflict management. These behavioral dimensions were used as a basis for developing an observational rating scale designed specifically for evaluating the quality of the partner reading interaction.

Hypotheses

Three models were posited to explain variation in the quality of the partner reading interaction. These models focus on different areas of influence for partner reading including the quality of the social interaction, the ability of the partners to assist one another in decoding or identifying words, and the imposition of structure on the interaction through the use of a script.

The social model assumes that the nature of the social interaction that occurs between children affects the quality of the partner reading interaction. Specifically, the social model suggests that positive or negative social relationships existing between children prior to the partner reading session will either promote or interfere with the interaction. Two variables, friendship and teacher- versus student-selected pairings, were included in this model. It is expected that partner reading will be more successful when children are allowed to choose their own partner compared to teacher-selected pairings, as it is believed that children will choose partners with whom they will interact with positively such as friends. Previous research has shown that children chose partners primarily on the basis of friendship and that student-selected pairs may be important for effective partner reading (Stahl et al., 1997). It is also expected that higher friendship ratings will correspond to a more positive and on-task partner reading session, whereas lower friendship ratings will be associated with a less successful interaction.

The positive interdependence model assumes that the ability of at least one partner to support and assist the other is vital for the success of partner reading. In paired reading, a more able reader is paired with a less capable reader for the express purpose of providing such assistance. In partner reading, the script requires children to alternately rely on each other for support. If neither of the children possesses the ability to assist in decoding or identifying words, then the interaction may break down when difficult words are encountered. Two variables are included in this model, teacher use of an ability discrepancy strategy when pairing children (pairing a more able reader with a less able reader) and the actual ability discrepancy between partners on standardized test measures. It is expected that both the use of an ability discrepancy as a teacher strategy for pairing children, as well as the ability discrepancy between partners as measured by standardized tests, will be associated with successful partner reading interactions.

Lastly, the teacher structural model posits that the imposition of structure through the inclusion of a script facilitates success in partner reading. The imposition of such structure is believed to enhance learning and eliminate negative social processes (O'Donnell, 1999). Two variables, initial teacher instruction of the partner reading script and teacher monitoring during partner reading, were included in this model. It is expected that adequate instruction in the beginning of the year on the basic partner reading script is essential for the success of the partner reading interaction. Once children possess a clear understanding of their roles in the interaction, it is expected that teacher monitoring will also be important to ensure that all children are fulfilling their roles and participating in the reading activity.

# CHAPTER 2: METHOD

## Participants

Participants were 43 pairs of second-grade children from 10 classrooms across 3 elementary schools located in the Southeastern part of the United States. The schools had a large number of children living in poverty, indicated by the high percentage (between 60-80%) of children receiving free or reduced lunch. Of the children participating, 60.5% were African American, 25.6% European American, 11.6% Latino, and 2.3% other race. Approximately 91% of pairs were of the same gender, and 53.5 % were of the same race. Participants were 62.8% female. On average, participants were 8.00 years of age. Ten teachers participated (4 African Americans, 6 European Americans). Data was collected via informal teacher interviews, teacher questionnaires, and direct observations of teachers and students during partner reading by two researchers.

## Partner Reading Rating Scale

The partner reading rating scale was adapted from Pomplun's (1996) Cooperative Group Rating Scale for the purpose of evaluating the quality of the partner reading interaction. This scale is comprised of 4 behavioral dimensions aimed at capturing the interaction of children during a paired reading session. These four dimensions include off-task behavior, instrumental support, emotional support, and conflict management. Each pair was rated on a 5-point likert scale for each behavioral dimension. Dimension ratings represented the interaction between the dyad rather than the behavior of an individual child. Specific descriptions of the behavioral dimensions are as follows:

*Off-task behavior* occurs when children engage in behaviors unrelated to the partner reading session or typical script behaviors of turn taking, listening, and reading along with their partner. Some examples of off-task behavior include not reading along, listening, or taking turns with one's partner, off subject talking, or ignoring or looking away from one's partner. Ratings of off-task behavior range from ratings of 1 which describes a group completely off-task such that the reading interaction breaks down and the reading is not competed, to a rating of 5 describing a group who is completely on-task. If a group is off-task a significant proportion of the time, then a rating of 2 is assigned. A rating of 3 describes a group who is momentarily but completely off-task, such that neither partner is momentarily fulfilling their roles as the reader and supporter. However, if a group is momentarily off-task on only a part of the partner reading script (i.e., one partner is not turning-taking, listening, or reading along), then a rating of 4 is assigned.

*Instrumental support* includes any behavior that aids one's partner in reading the assigned book or chapter. Some examples of instrumental support include helping one's partner decode a word or phrase, providing unknown words, and providing a reading strategy such as reading along with one's finger. Helping behavior ratings of 1 describe the occurrence of help being needed but not provided by one's partner. When help is needed but is only occasionally being provided, a rating of 2 is assigned. Instances where helping is not needed (and therefore is not being provided) ratings of 3 are assigned. Ratings of both 4 and 5 describe instances where help is given. A rating of 4 describes help in the form of providing known words or information, while ratings of 5 describe

more complex helping such as providing a reading strategy or when partners combine efforts and work together to decode words.

*Emotional supportiveness* includes any comments or nonverbal behaviors that indicate positive emotional support. Examples of emotional supportiveness include: offering verbal agreement such as "that's right," making encouraging or positive comments like "you can do it," and any nonverbal behavior that demonstrates the partner's supportiveness such as nodding, smiling, and leaning forward. Ratings of 4 and 5 describe interactions where positive emotional verbal and nonverbal behavior takes place. Specifically, ratings of 4 describe instances where nonverbal behaviors such a nodding and smiling are demonstrated, but where only neutral verbal comments, if any, are made. Ratings of 5 describe the occurrence of not only positive nonverbal behavior, but also of positive verbal comments. Ratings of 3 describe neutral interactions. Ratings of 1 and 2 are assigned to interactions where negative verbal or nonverbal communications occur. Ratings of 2 describe instances where negative nonverbal communication such as turning away from one's partner or making faces, but where no negative comments are made. If a partner(s) make negative comments such as "you're stupid" or "why can't you read this" and exhibits a general negative attitude towards the interaction, then a rating of 1 would be assigned.

C*onflict management* refers to whether or not a conflict is resolved quickly and smoothly such that it does not interfere with either the quality or the process of the paired reading session. For example, partners may initially disagree on who will read first, but resolve this conflict quickly and begin reading. When conflicts and disagreements are resolved positively and do not interfere with the reading, then a rating of 5 is assigned. If

no conflicts emerge, then a rating of 4 is assigned. If conflicts interfere with the quality or progress of the reading session only briefly, then a rating of 3 is assigned. For example, partners may argue over whose turn it is to read, but resolve the conflict quickly enough so that they are able to complete the reading assignment. Ratings of 2 describe instances where conflicts do interfere with the quality and progress of the reading session, but that the reading is eventually resumed. Lastly, a rating of 1 describes instances where conflicts are not resolved in a positive manner such that the reading and turn taking is not resumed. For example, after a disagreement partners may begin to read the text independently or walk away from the reading interaction altogether.

Procedure

Data collection entailed gathering information regarding partner reading and teacher behavior.

Partner Reading Observation. A round robin method was employed to collect the observational data; the two researchers observed the first pair simultaneously in order to gather reliability data and then rotated around the room observing up to two other dyads. Observations were done in a 1 minute on, 1 minute off, fashion. When all the pairs had been observed, the researchers would begin again with the reliability pair and observed the children again. The presence of teacher monitoring, which includes any behaviors, comments, nonverbal behaviors, and activities that the teacher engages in to promote on-task behavior in children during partner reading was noted. Virtually all the teachers displayed monitoring behaviors during our observations.

Teacher Observation and Interview. Questions pertaining to the partner reading session were answered either directly through an interview of the classroom teacher or on the basis of observations of the reading activity.

Measures

(a) Teacher Strategy

Teachers were asked whether they paired the children or allowed the children to choose their own reading partner. If teachers chose the reading partners, then they were asked what strategies were used to pair the children. Teachers were also asked what other strategies they have used in the past to pair the children for partner reading.

(b) Teacher Instruction

Teachers were asked questions pertaining to the level of instruction given to children on how to do partner reading at the beginning of the year. The level of initial instruction was rated on a 3-point scale. Ratings of 1 were assigned if a teacher did not explain all components of a basic partner reading script or did not use a consistent script. The basic script needed to contain instructions regarding taking turns, reading along, staying on-task, and providing help. A rating of 2 was assigned if teacher instructed students on the basic partner reading script. If teacher instructions went above and beyond teaching the basic partner reading script by modeling or discussing the script extensively, or by giving specific strategies that aided in the partner reading interaction, then a rating of 3 was assigned. Specifically, ratings of 3 were assigned if, while introducing partner reading at the beginning of the year, the teacher engaged in two or more of the following: modeling, extensively discussing, and/or teaching specific strategies for partner reading. The level of verbal instruction given to the students

immediately before the partner reading activity observed by the researchers was also noted.

(c) Classroom Activity

Whether all the children in the class participated in the partner reading activity was noted. The activity of nonparticipating children (e.g., working in a reading small group) was also noted. The presence of teacher monitoring during the partner reading, as well as the type of teacher monitoring (i.e., reading along with a child, helping children identify word(s), disciplining off-task behavior, listening to children read, and other) was noted. If the teacher did not engage in monitoring, then his or her activity (grading papers, working with a small group, left room, etc.) was also noted.

(d) Teacher Friendship Questionnaire

Teachers were given a list of the pairs who were observed in his or her room, and were asked to rate the children's reciprocal friendship level on a 4-point rating scale[1]. Reading pairs were rated on a 4-point scale where 1 represented that the two children do not get along with each other and are not friends, 2 represented that the two children get along okay with each other, 3 represented that the two children get along with each other well and are friends, but are not close friends, and 4 represented that the two children are very good or best friends.

[1] Initially, participants were given a friendship questionnaire after completing the partner reading activity which asked, "Was your reading partner today one of your *BEST* friends? YES or NO (Please circle one)." Only 3 out of 86 children answered "NO" to the friendship question. However, I doubted that nearly all (97 %) of the children were indeed paired with one of their best friends, so it was decided that the demand characteristics of the situation were such that the children felt it socially desirable to report their partner as a best friend. Although reciprocal friendship nominations are typically used to gather information regarding children's friendship status, teacher and peer ratings of peer status such as sociometric status (or social acceptance) generally have been found to be moderately correlated with one another (Kleck & DeJoong, 1981; La Greca, 1981; Lanceolotte & Vaughn, 1989; Landau, Millich, & Whitteen, 1984).

Reading Ability

Participants were administered the Test of Word Reading Efficiency (TOWRE; Torgeson, Wagner, & Rashotte, 1997) which consists of simple word reading efficiency and phonemic decoding efficiency subtests. Children were given a list of words and a list of nonwords, and were asked to read them as quickly as possible. The number of words and nonwords read correctly within sixty seconds was noted. The reading comprehension subtest of the Wechsler Individual Achievement Test (WIAT; The Psychological Corporation, 1992) was also administered. Children read sentences or short passages and were then asked questions about what they had read. These assessments were conducted no more than two months prior to the partner reading observation[2].

[2] Of the 3 subtests administered, preliminary results revealed that only the phonemic decoding efficiency discrepancy between the partners was related to the partner reading interaction. Therefore, further analysis included only the phonemic decoding efficiency measure.

# CHAPTER 3: RESULTS

## Partner Reading Rating Scale

Inter-Coder Reliability. Pearson correlation coefficients were computed to determine the inter-coder reliability for the overall scale and four dimensions. The overall scale inter-coder reliability was 0.93, $p < 0.001$. Some variation in inter-coder reliability was observed across the behavior dimensions. Inter-coder reliability for on-task behavior, $r = 0.96$, $p < 0.001$ was higher than for emotional support, instrumental support, and conflict management, $r = 0.87$, $p < 0.001$.

Scale Description. The total partner reading rating scale average was quite high ($M = 3.68$, $SD = 0.43$). Dimension means for instrumental support ($M = 3.51$, $SD = 0.53$), emotional support ($M = 3.36$, $SD = 0.63$), conflict management ($M = 3.94$, $SD = 0.32$), and on-task behavior ($M = 3.90$, $SD = 0.97$) were also high. Plots revealed that little variation existed in scores across instrumental support, emotional support, and conflict management dimensions. Only on-task behavior appeared to have much variability. Together these results suggest that the partner reading interactions in the classroom observed in this study were generally successful. The children observed generally helped each other when needed, were on-task or were just momentarily off-task, were emotionally supportive, and had very few conflicts, the majority of which were resolved quickly and did not interfere with the partner reading session.

Factor Analysis. The dimensions were factor analyzed to determine whether four distinct dimensions were necessary to capture the partner reading interaction or whether the total scale average should instead be used. Factors were extracted using the principal

axis method. As shown in Table 1, instrumental support, emotional support, and conflict management shared a greater degree of commonality than did on-task behavior. When two factors were extracted, the second factor seemed to absorb variance from on-task behavior but not from the other three dimensions (see Table 2). These findings suggest that instrumental support, emotional support, and conflict management share great commonality, but that on-task behavior was somewhat distinct.

When on-task behavior was removed from the one-factor model, a greater percent of variance was explained (51.3%) than when on-task behavior was included in the model (40.0%, see Table 3). Also, instrumental support accounts for over half the variation explained by both models (52.8 % when on-task was included and 66.3% when on-task was removed), suggesting that helping behavior is important for partner reading. Given these findings, the first three dimensions (instrumental support, emotional support, and conflict management) were averaged, labeled "social cooperation," and treated as a single dependent variable. On-task behavior was treated as a second variable.

Teacher Behavior

Teacher Instruction. Generally, teachers provided adequate instruction on the partner reading script at the beginning of the year. Only 3 out of 12 teachers failed to give adequate instruction or gave inconsistent instruction of the partner reading script[3]. Five teachers provided adequate instruction, and four teachers provided instruction that went beyond instruction of the basic script by modeling, discussing extensively, or providing specific strategies that aided in the partner reading interaction.

[3] Data was collected in 2 classrooms at the end of the school year, and in 10 classrooms in the fall, winter, and spring of the subsequent school year. Therefore, although 10 teachers participated in the study, 12 sets of teacher interview and observational data were collected.

Table 1

One Factor Extracted Model of the Partner Reading Rating Scale (N=43)

| | Factor 1 |
|---|---|
| Instrumental Support | 0.73 |
| Emotional Support | 0.60 |
| Conflict Management | 0.79 |
| On-Task Behavior | 0.30 |

Note: Principal axis extraction method was used.

Table 2

Unrotated Two Factor Extracted Model of the Partner Reading Rating Scale (N=43)

| | Factor 1 | 2 |
|---|---|---|
| Instrumental Support | 0.68 | 0.07 |
| Emotional Support | 0.57 | 0.07 |
| Conflict Management | 0.90 | -0.28 |
| On-Task Behavior | 0.33 | 0.49 |

Note: Principal axis extraction method was used.

Table 3

One Factor Extracted Model of the Partner Reading Rating Scale with On-Task Behavior Removed (N=43)

| | Factor 1 |
|---|---|
| Instrumental Support | 0.69 |
| Emotional Support | 0.57 |
| Conflict Management | 0.86 |

Note: Principal axis extraction method was used.

Teacher Monitoring. A negative relationship existed between the level of teacher instruction and the occurrence of teacher monitoring during partner reading $r = -0.68$, $p <= 0.001$. The more instruction teachers provided students at the beginning of the year, the less teacher monitoring (i.e., walking around the room during partner reading, listening, reading along with children, disciplining off-task behavior, etc.) during partner reading was observed. However, the majority of the classroom teachers (8 out of 12 or 69.77 % of the pairs observed) did monitor children during partner reading. Of those teachers who did not monitor during partner reading, two worked with a small group of struggling readers using an echo reading strategy, and one worked with a small group of children completing reading exercises on the computer. One teacher monitored indirectly by assigning a student to monitor the class while she spent the duration of the reading activity doing paperwork.

Pairing Strategy. The majority of the children (67.44 % of the pairs or 7 out of 12 classrooms) observed in this study were allowed to choose their own reading partners rather than having teacher-selected partners. When asked on what basis they selected the children's partners on the day partner reading was observed, teachers cited either seating arrangement (pairing children sitting next to one another) or reading ability (pairing more capable readers with less capable readers). Although no teacher cited gender as a strategy for pairing the children on the day partner reading was observed, 85.71 % of the teacher-selected pairs were of the same gender. Similarly, 93.10 % of student-selected pairs were of the same gender.

The majority of the teachers (75 %) reported that they do not always use the same method for pairing the children for partner reading. Teachers reported varying between

student- and teacher-selected pairings and/or varying the strategy used to pair children when they selected the reading partners. When asked what strategies they have used to select the children's reading partners in the past, teachers most frequently cited using reading ability in combination with other strategies such as seating arrangement, friendship, temperament of the children, and gender to pair children for partner reading.

Hypothetical Models

To discern the characteristics of the partner reading setting that best predicted the quality of the partner reading interaction, the variables associated with each model were analyzed in relation to the social cooperation and on-task scale scores separately.

Social Model. The social model posits that the quality of the partner reading interaction is influenced by the nature of the social relationship between the children prior to the partner reading session. Specifically, it was hypothesized that higher teacher ratings of friendship and student- versus teacher-selected pairings would promote higher levels of on-task behavior and social cooperation.

The social model, which consisted of teacher ratings of friendship, partner selection (teacher- versus student-selected pairings), and a friendship X partner selection interaction, did not account for a significant proportion of the variance observed in on-task behavior, $F$ (3,38) = 1.70, $p$ = 0.334, adjusted $R^2$ = 0.012. As shown in Table 4, no relationship was found between either teacher ratings of friendship and on-task behavior, $t$ (38) = 1.355, $p$ = 0.183 or partner selection and on-task behavior, $t$ (38) = 1.809, $p$ = 0.078. A friendship X partner selection interaction also was not found to be statistically significant, $t$ (38) = -1.607, $p$ = 0.116. In sum, the quality of the social relationship prior

Table 4

Summary of Regression Analysis for the Social Model (N=43)

| | B | SE | t |
|---|---|---|---|
| On-Task Behavior | | | |
| Friendship Ratings | 0.59 | 0.43 | 1.36 |
| Partner Selection | 2.21 | 1.22 | 1.81 |
| Friendship X Partner Selection | -0.77 | 0.48 | -1.61 |
| Social Cooperation | | | |
| Friendship Ratings | 0.26 | 0.18 | 1.47 |
| Partner Selection | 1.01 | 0.50 | 2.03* |
| Friendship X Partner Selection | -0.39 | 0.20 | -1.98 |

Note: *p< .05; **p< .01

to the partner reading activity did not affect levels of on-task behavior during partner reading.

The social model taken as a whole also did not account for a significant proportion of the variance observed in social cooperation during partner reading, $F$ (3, 38) = 1.517, $p$ = 0.226, adjusted $R^2$ = 0.036. However, there was a significant relationship between partner selection and social cooperation, $t$ (38) = 2.028, $p$ = 0.05. Children exhibited higher levels of social cooperation when they chose their own partner for the reading activity than when the teacher selected their partners. The friendship X partner selection interaction approached statistical significance, $t$ (38) = -1.98, $p$ = 0.055. This nearly significant interaction suggests that lower teacher ratings of friendship correspond to lower levels of social cooperation only when teachers rather than students selected the reading partners.

Positive Interdependence Model. The positive interdependence model posited that the ability of at least one partner to assist and support the other is vital for the success of partner reading. Specifically, it was hypothesized that teacher use of an ability strategy to pair children for partner reading (pairing a more capable reader with a less capable reader) and the actual ability discrepancy between partners would be associated with higher levels of on-task behavior and social cooperation.

The positive interdependence model consisting of teacher use of an ability strategy, ability discrepancy, and an ability strategy X ability discrepancy interaction was found to account for 19.0 % of the variance observed, $F$ (3, 39) = 4.279, $p$ = 0.011. Interestingly, teacher reports of using ability as a strategy to pair children for partner reading and the actual ability discrepancy between partners were not associated with one

another, $r = -0.119$, $p = 0.449$. These findings seem to suggest that teachers reported using a strategy they did not consistently use. However, teachers have a limited number of very high and very low readers to pair for partner reading. Even if a teacher wants to create discrepant pairs, only a few will be created within each class, leaving a majority of similar ability dyads. There was a statistically significant ability strategy X ability interaction, $t\ (38) = 2.286$, $p = 0.007$ (see Table 5). The form of this interaction suggests that when teachers use ability to group children for partner reading, on-task behavior is increased only when there is an actual discrepancy between the children's reading ability.

Analysis of variance revealed that the positive interdependence model consisting of ability strategy, ability discrepancy, and an ability strategy X ability discrepancy interaction accounted for a non-significant proportion of variance in social cooperation during partner reading, $F\ (3, 39) = 0.954$, $p = 0.424$, adjusted $R^2 = -0.003$. Additionally, no relationship was found between either teacher use of an ability strategy and social cooperation, $t\ (38) = 0.775$, $p = 0.443$ or between the actual ability discrepancy of the pair and social cooperation, $t\ (38) = 0.425$, $p = 0.673$. The ability strategy X ability discrepancy interaction also was not found to be a significant predictor of social cooperation, $t\ (39) = 0.149$, $p = 0.882$.

Teacher Structural Model. The teacher structural model posited that the imposition of a structured interaction through the inclusion of the partner reading script facilitates learning and eliminates negative social processes in partner reading. It was hypothesized that the level of instruction provided to students by teachers at the beginning of the school year as well as the presence of teacher monitoring during the reading activity would promote higher levels of on-task behavior and social cooperation.

Table 5

Summary of Regression Analysis for the Positive Interdependence Model (N=43)

| | B | SE | t |
|---|---|---|---|
| On-Task Behavior | | | |
| Ability Strategy | -2.34 | 0.77 | -3.03** |
| Ability Discrepancy | 0.02 | 0.01 | 1.08 |
| Ability Strategy X Discrepancy | 0.20 | 0.07 | 2.86** |
| Social Cooperation | | | |
| Ability Strategy | 0.27 | 0.35 | 0.78 |
| Ability Discrepancy | 0.00 | 0.01 | 0.43 |
| Ability Strategy X Discrepancy | 0.01 | 0.03 | 0.15 |

Note: *p< .05; **p<. 01

Interestingly, all teachers who provided inadequate instruction of the partner reading script at the beginning of the year also engaged in monitoring the children during partner reading. Therefore, teachers who provided inadequate instruction were removed as a level of the teacher instruction variable, leaving only those teachers who provided an adequate or a highly elaborate explanation of the partner reading script. The teacher structural model consisting of teacher instruction (adequate or elaborate instruction), the presence or lack of teacher monitoring, and a teacher instruction X teacher monitoring interaction accounted for a nonsignificant proportion of variation in on-task behavior $F$ (3, 32) = 0.664, $p$ = .581, adjusted $R^2$ = -0.033. Additionally, as shown in Table 6, there were no significant relationships between either of the independent variables and on-task behavior.

The teacher structural model as a whole accounted for 54.7% of the variance in social cooperation among children during partner reading, $F$ (3, 29) = 13.87, $p$ < 0.001. A negative relationship was found between teacher monitoring and teacher instruction, $r$ = -0.638, $p$ = 0.00. That is, the more instruction teachers provided children at the beginning of the year, the less likely they were to monitor the children during partner reading.

A main effect was found for teacher instruction, $F$ (1, 29) = 40.17, $p$ < 0.001. Students who received adequate instruction of the partner reading script displayed higher levels of social cooperation than students who were given a highly elaborative explanation. A main effect also was found for teacher monitoring, $F$ (1, 33) = 10.78, $p$ = 0.003. Higher levels of social cooperation were observed when teachers did not engage in monitoring the children during partner reading compared to instances where teachers did monitor. A one-way analysis of variance revealed a main effect for teacher instruction for

Table 6

Analysis of Variance for the Teacher Structural Model (N=43)

| Source | df | F | |
|---|---|---|---|
| | | Social Cooperation | On-Task |
| Teacher Monitoring | 1 | 10.78** | 0.17 |
| Teacher Instruction | 1 | 40.17** | 1.63 |
| Instruction X Monitoring | 1 | 3.595 | 0.04 |
| Error | 29 | (0.05) | (0.83) |

Note: Values enclosed in parentheses represent mean square errors.
*p < .05; **p < .01

those teachers who engaged in monitoring the children during partner reading, $F$ (2, 27) = 5.86, $p$ = 0.008. A Tukey post hoc multiple comparisons test indicated that there was a significant difference in the levels of social cooperation displayed by students who were provided adequate as compared to inadequate instruction of the basic partner reading script, $p$ = 0.02. Differences in the levels of social cooperation also were found between students who received adequate as compared to highly elaborative explanations of the partner reading script, $p = 0.043$. Apparently, both too little instruction and too much elaboration of the partner reading script was associated with poorer cooperation on the children's part.

# CHAPTER 4: DISCUSSION

The aim of this study was to identify factors that affect the quality of the partner reading interaction for the purpose of providing teachers with empirically based strategies for organizing, managing, and implementing partner reading. Three models consisting of factors believed to be important for partner reading were proposed to explain variation observed in the reading interaction. Although not all three of the models were found to predict on-task behavior and social cooperation, several important factors within these models were identified.

The social model posits that the nature of the social interaction that occurs between children affects the quality of the partner reading interaction. Specifically, the social model suggests that positive or negative social relationships that exist between children prior to the partner reading session will either promote or interfere with the interaction. This model did not predict overall levels of on-task behavior or social cooperation. However, partner selection was identified as an important factor for social cooperation in partner reading. Children who were allowed to choose their own partner exhibited higher levels of social cooperation than children who were paired by their teacher. Additionally, although the interaction only approached significance, lower teacher ratings of friendship corresponded to lower levels of social cooperation only when teachers rather than students selected their reading partners. These findings suggest that children generally choose partners with whom they will interact cooperatively.

The current test of this general model may have underestimated the importance of social variables on the quality of the partner reading interaction. Teacher and peer ratings of peer status such as social acceptance have been found to only moderately correlate with one another (Kleck & DeJoong, 1981; La Greca, 1981; Lanceolotte & Vaughn, 1989; Landau et al., 1984). To gain a more sensitive measure of children's friendships, it might have been preferable to identify reciprocal friendships by asking the children to nominate three liked-most peers (Lease & Axelrod, 2001; Parker & Asher, 1993). Still, there is some evidence that pairing children with their friends, whether through the teacher's selection or the child's selection, may be an effective strategy for partner reading.

The positive interdependence model posits that the ability of at least one partner to support and assist the other is vital for the success of partner reading. In paired reading, a more able reader is paired with a less capable reader for the express purpose of providing such assistance. In partner reading, the script requires children to alternately rely on each other for support, making the ability of at least one partner to provide help during partner reading essential. This model was found to predict levels of on-task behavior, but not social cooperation. Interestingly, teacher reports of using an ability strategy (pairing a more capable reader with a less capable reader) to pair children for partner reading and the actual ability discrepancy between partners were not associated with one another. However, there is an inherent limitation of this strategy, particularly in high-risk schools, such as the ones in which we observed. Teachers have a limited number of high skill readers to pair for partner reading. It appears that even when teachers use a strategy for pairing children that aims at creating discrepant pairs, only a

few will be created within each class, leaving a majority of similar ability dyads. This limitation of the ability strategy is also described in the ability strategy X ability discrepancy interaction. When teachers use ability to group children for partner reading, on-task behavior is increased only when there is an actual discrepancy between the children's reading ability.

In sum, these results suggest that, although pairing more capable readers with less capable readers facilitates on-task behavior in partner reading, this strategy cannot be used to pair all the children in the class due to the limited number of high and low ability students. Findings based on the teacher interviews suggest that although most teachers in this study use ability as a strategy for pairing children for partner reading, they most often use they it in combination with another pairing strategy (such as seating arrangement, friendship, temperament, or gender). Consequently, one recommendation in using this strategy may be to use it only for dyads in which one partner can clearly be of help to a less skilled reader.

The teacher structural model posits that the imposition of structure through the inclusion of a script facilitates success in partner reading. The imposition of such structure is believed to enhance learning and eliminate negative social processes (O'Donnell, 1999). In support of this view, teacher monitoring and teacher instruction were found to predict levels of social cooperation, but not on-task behavior. Counter-intuitively, the highest levels of social cooperation were not found when teachers provided highly elaborated scripts at the beginning of the year. Instead, when teachers merely provide adequate instruction of the partner reading script higher levels of social cooperation were displayed. Naturally, inadequate instruction of the script also leads to

lower levels of cooperation. Furthermore, higher levels of social cooperation were also observed when teachers did not monitor during partner reading.

These findings suggest that the imposition of structure on a cooperative task through the use of a script may facilitate the interaction, but only to a point. These findings suggest that adequate instruction of the partner reading script at the beginning of the year is essential to the success of the partner reading interaction. However, teacher monitoring may not be necessary after this instruction has been provided. In fact, high levels of elaboration and high levels of monitoring may be perceived as externally controlling by the students and may reflect teacher difficulty with organizing or managing the students in the classroom.

Teacher interviews and observations provided valuable information regarding how teachers participating in this study organized, managed, and implemented partner reading. As evidenced by the high dimension means on the Partner Reading Rating Scale, the strategies employed by these teachers appear to be effective. Overall, the teachers observed in this study provided at least adequate instruction of the partner reading script at the beginning of the school year. The majority of the teachers also engaged in monitoring (i.e., walking around the room during partner reading, listening, reading along with children, disciplining off-task behavior, etc.) during partner reading. The majority of the teachers also allowed children to choose their own partner on the day the partner reading activity was observed. However, most teachers also reported varying between student- and teacher-selected pairings. Teachers also reported varying the strategy used when pairings children for partner reading.

In sum, several recommendations can be made based on the findings of this study for how teachers should organize, manage, and implement partner reading. *Adequate instruction should be provided at the beginning of the year about the partner reading script*. Specifically, students should be provided instructions regarding taking turns, reading along, staying on task, and providing help to their partners. *Children should be allowed to choose their own partner*. Children are capable of choosing a partner with whom they will interact cooperatively, although the basis on which they select their partner is unclear. *When teachers do pair children for partner reading, more capable readers should be paired with less capable readers when possible*. However, this strategy will most likely need to be used in combination with another strategy such as friendship, since there are a limited number of high and low reading ability students in a class.

There were several limiting factors associated with this investigation of partner reading. Only 43 pairs (86 children) participated in the study, and six independent variables were examined. Possibly because of the sample size and the generally good behavior observed during partner reading, little variation was observed in the instrumental support, emotional support, and conflict management dimensions of the Partner Reading Rating Scale. While this good behavior suggests that children enjoy and willingly participate in partner reading, it does make it difficult to discern variables that influence high and low levels of cooperation during partner reading.

Additionally, children were not assigned into groups experimentally (e.g., explicitly pairing children with friends versus nonfriends). This made it difficult to disentangle the directionality of some effects (e.g. does teacher monitoring cause poorer

partner reading interactions or does the existence of poor partner reading cause teachers to increase their level of monitoring?).

Lastly, the method used to collect ratings of friendship is questionable. Only a moderate correlation exists between teacher and peer ratings of peer status such as sociometric status (Kleck & DeJoong, 1981; La Greca, 1981; Lanceolotte & Vaughn, 1989; Landau, et al., 1984). Consequently, it is difficult to assess which of these factors are more powerful predictors of interaction quality.

There is limited information on the academic benefits of partner reading. Future investigations of partner reading should explore how variables such as friendship, pairing strategy, and ability discrepancy affect the improvement of reading skills over time. Furthermore, such investigations should employ assignment of children to groups so that causal inferences can be made.

In sum, the present study offers some tentative suggestions regarding how to structure partner reading to promote high quality interactions. In general, it appears that partner reading is usually associated with high quality interactions. Should the technique be uniquely identified with improved reading fluency (for which partner reading was originally designed) as well, then it can become an enjoyable, beneficial pedagogical tool for enhancing the development of reading skills.

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APPENDIX A

Table 7

Correlation Matrix Including the Dimensions of the Partner Reading Rating Scale and the Hypothesized Variables (N=43)

| | 1 | 2 | 3 | 4 |
|---|---|---|---|---|
| 1. Instrumental Support | -- | -- | -- | -- |
| 2. Emotional Support | 0.39** | -- | -- | -- |
| 3. Conflict Management | 0.59** | 0.49** | -- | -- |
| 4. On-Task Behavior | 0.29 | 0.22 | 0.16 | -- |
| 5. Social Cooperation | 0.80** | 0.83** | 0.79** | 0.28 |
| 6. Friendship Ratings | -0.08 | 0.02 | -0.28 | -0.00 |
| 7. Partner Selection | 0.06 | 0.15 | -0.21 | 0.12 |
| 8. Ability Strategy | 0.20 | 0.18 | 0.26 | -0.19 |
| 9. Ability Discrepancy | -0.08 | 0.20 | -0.11 | 0.25 |
| 10. Teacher Monitoring | -0.20 | 0.14 | 0.04 | -0.04 |
| 11. Teacher Instruction | 0.13 | -0.18 | -0.04 | 0.16 |

Note: *$p < .05$; **$p < .01$

Table 7 continued

Correlation Matrix Including the Dimensions of the Partner Reading Rating Scale and the Hypothesized Variables (N=43)

| | 5 | 6 | 7 | 8 |
|---|---|---|---|---|
| 1. Instrumental Support | -- | -- | -- | -- |
| 2. Emotional Support | -- | -- | -- | -- |
| 3. Conflict Management | -- | -- | -- | -- |
| 4. On-Task Behavior | -- | -- | -- | -- |
| 5. Social Cooperation | -- | -- | -- | -- |
| 6. Friendship Ratings | -0.10 | -- | -- | -- |
| 7. Partner Selection | 0.05 | 0.23 | -- | -- |
| 8. Ability Strategy | 0.25 | -0.12 | -0.52** | -- |
| 9. Ability Discrepancy | 0.04 | 0.23 | 0.27 | -0.12 |
| 10. Teacher Monitoring | -0.00 | -0.14 | 0.08 | -0.08 |
| 11. Teacher Instruction | -.050 | .165 | -.025 | -0.35* |

Note: *$p < .05$; **$p < .01$

Table 7 continued

Correlation Matrix Including the Dimensions of the Partner Reading Rating Scale and the Hypothesized Variables (N=43)

| | 9 | 10 | 11 |
|---|---|---|---|
| 1. Instrumental Support | -- | -- | -- |
| 3. Emotional Support | -- | -- | -- |
| 3. Conflict Management | -- | -- | -- |
| 4. On-Task Behavior | -- | -- | -- |
| 5. Social Cooperation | -- | -- | -- |
| 6. Friendship Ratings | -- | -- | -- |
| 7. Partner Selection | -- | -- | -- |
| 8. Ability Strategy | -- | -- | -- |
| 9. Ability Discrepancy | -- | -- | -- |
| 10. Teacher Monitoring | -0.05 | -- | -- |
| 11. Teacher Instruction | 0.11 | -0.64** | -- |

Note: *$p < .05$; **$p < .01$