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The effects of a cooperative group structure on low-achieving students in the area of reading

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The effects of a cooperative group structure on low-achieving students in the area of reading

Abstract

The outcomes of Chapter 1 students involved in a cooperative group structure during reading were investigated. The study was conducted in a Chapter 1 classroom with two groups of second-grade students. A total of 8 subjects were involved in the study. During the 10-week study, each group was exposed to the experimental treatment for a 5-week period and the control treatment for 5 weeks. A cooperative group structure was implemented during the experimental treatment, with students working in dyads to complete assigned tasks. In the control treatment, students worked in a homogeneous ability group structure and follow-up work was completed independently. Samples of student work, tape-recorded retellings, observations of student-to-student interaction, and informal student interviews were collected and analyzed. Data were gathered regarding: (a) academic achievement in vocabulary and comprehension; (b) the effects of student-to-student interaction; and (c) affective aspects, such as social skills and attitudes. Results indicated higher achievement in identification of vocabulary words when participating in a cooperative group structure. Student-to-student interaction facilitated the use of reading strategies and verbalization of ideas during oral reading. A considerable increase of on-task behavior was observed during involvement in the cooperative group structure in comparison to the control treatment. Students expressed positive attitudes toward learning in the cooperative situation.

THE EFFECTS OF A COOPERATIVE GROUP STRUCTURE
ON LOW-ACHIEVING STUDENTS IN THE AREA OF READING

A Research Paper
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in Partial Fulfillment
of the Requirements for the Degree
Master of Arts in Education

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ABSTRACT

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CHAPTER I

THE PROBLEM

Success in today's society is comprised of competitiveness and an essential element of cooperation. Groups such as families, work groups, and political parties must cooperate to achieve common goals in whatever the endeavor, or consequently, maximum benefits may not be reached.

Interaction with others begins at the onset of life. Behaviors necessary for interacting cooperatively are formed in relationships at home, school, and within the community. With the rise of family disorganization and societal changes, American students lack the environmental experiences that would sensitize them to cooperation (Johnson, Johnson, Holubek, & Roy, 1984).

Our educational system has contributed to student alienation as schools have become larger, therefore increasing class sizes. Often, they are structured in a way which emphasizes impersonality and isolation. Johnson et al. (1984) estimated that over 85% of the instruction in school consists of seatwork, lectures, or competitive activity; on the average, only 7-20% of class time utilized cooperative activity.

According to Johnson et al. (1986), one of the most important things educators can do for students is to help them learn how to build and maintain positive relationships with others. Knowledge and skills are useless if students cannot apply them in a cooperative

manner when interacting with others. Restructuring must take place within classrooms if students are to develop competencies necessary for effective interaction. This is vitally important for the future success of students preparing for adulthood, as they will uphold a career, maintain a family, and contribute to the community in which they live.

A renewed interest is being taken in cooperative learning as an alternative to traditional learning methods. Some of this interest may be due to the positive academic and social outcomes concluded from numerous studies of cooperative learning. Johnson, Maruyama, Johnson, Nelson, and Skon (1981, cited in Johnson et al., 1984) reviewed 122 studies involving a wide range of subject areas and ages. The results indicated cooperative learning experiences promoted higher achievement. This was true for tasks involving conceptual attainment, verbal problem solving, retention and memory, motor performance, and guessing-judging-predicting. Their findings also indicated the use of higher reasoning strategies and greater critical thinking competencies, positive attitudes toward subject areas, development of collaborative competencies, and was positively related to factors affecting psychological health. Numerous aspects of socialization were cultivated through cooperative learning experiences such as feelings of acceptance and success, high self-esteem, accurate perspective taking, and improved relationships with school personnel. A liking for classmates was evident among handicapped and

nonhandicapped students, different ethnic groups, and students of differing abilities (Johnson et al., 1984).

The benefits of cooperative learning are obvious; yet, educators continue to cling to the strongholds of tradition. This is evident in the area of reading as researchers have observed classrooms in which students work alone with little interaction between the teacher and peers (Palincsar, Stevens, & Gavelek, 1988). Pupil isolation may be due to the view that silence is a necessity in learning to read (Topping, 1989). Observations also conclude that reading instruction is exclusively teacher-directed and focused on lower level skills while the cognitive activity of the teacher and student remains private (Palincsar et. al., 1988).

Reading instruction in the United States usually takes place in groups in which members are of similar ability. There are some serious drawbacks in ability grouping, especially concerning the low-achieving student. The report of the Commission on Reading, Becoming a Nation of Readers (Anderson, Hiebert, Scott, & Wilkinson, 1985) stated that alternatives or supplements to the traditional reading program need to be explored. It is unfortunate that cooperative learning has not been applied to reading instruction as widely as other curriculum areas. Slavin, Stevens, and Madden (1988) stated that this may be due to the universal practice of homogeneous grouping in reading groups.

Goal of Study

The goal of this study was to determine the effect on Chapter 1 students when working in a cooperative group structure during reading. Subjects' inclusion in the study was the result of their being identified through testing measures as low achievers in reading.

Significance of Study

Educators are faced with the challenge of motivating and promoting learning for the low-achieving student. Researchers continue to gain insight into the complex process of reading and the factors that may be contributing to students developing poor reading skills. New methods are investigated in attempt to lessen the gap between good and poor readers. Therefore, this study was proposed to examine the effectiveness of a cooperative learning method on low-achieving students in an effort to improve the traditional learning environment in reading instruction.

CHAPTER II

REVIEW OF RELATED LITERATURE

This chapter consists of four parts. The first part identifies and describes three types of goal structures used within the classroom. The second part consists of a review of cooperative learning methods focusing on the design, essential elements, and cooperative learning structures. In contrast to the second part, the next section presents information regarding traditional reading instruction, primarily examining the effects of homogeneous ability grouping. The chapter concludes with research dealing with the implications of a cooperative group structure on reading achievement.

According to Johnson et al. (1984), cooperative learning is an old idea that was promoted as early as the first century. England used cooperative learning groups extensively in the late 1700s, and the idea was introduced to America in 1806 with the opening of a Lancastrian school in New York City. While advocates such as Colonel Francis Parker and John Dewey continued to promote the use of cooperative learning groups during the 19th century, interpersonal competition began receiving emphasis in public schools in the late 1930s. For the past half century, competitive and individualistic goal structures have dominated American education (Johnson et al., 1984).

Types of Goal Structures

A competitive structure is characterized by students working against one another to achieve a goal that few can attain. Johnson and Johnson (1986) cited that a negative interdependence develops as students believe the only way they can obtain their goals is through other students' failures. Thus, students seek outcomes that are beneficial to themselves but detrimental to those they are competing against. As a result of the continual comparing, Slavin (1981) noted that a pecking order begins to develop. The higher achievers are at the top and the low-performing students are at the bottom with a limited chance for success. For some students, withdrawal from school or delinquency can result. Johnson and Johnson (1986) stated that some teachers have attempted to reduce competition through their methods of evaluation. Occasionally, criterion-referenced tests were used instead of norm-referenced measures. However, according to a series of studies conducted by Johnson and Johnson (1978), elementary and secondary students continued to view school as being competitive.

Johnson and Johnson (1986) and Slavin (1983) describe an individualistic structure as one in which students work independently, accomplishing goals unrelated to other students. Each student has his/her own set of materials, works at an individualized pace, and is rewarded on the accomplishments of individual goals. A student's goal attainments are independent and unrelated to the efforts of other students. There is no goal interdependence as students seek outcomes beneficial to themselves, ignoring the achievements of others.

Johnson and Johnson (1986), as well as numerous other researchers, agree that a positive alternative to the competitive and individualistic structure is cooperative learning. This structure is characterized by students working together in small groups to accomplish shared goals. "There is a positive interdependence among students' goal attainments; students perceive that they can reach their learning goals if and only if other students in the learning group also reach their goals" (Johnson & Johnson, 1986, p. 4). Through discussion, encouragement, and sense of responsibility, students seek outcomes beneficial to all those involved.

Johnson and Johnson (1974) stated that "there is a great deal of evidence that the process by which students learn (i.e., the way in which students interact and behave in learning situations) and the outcomes of learning are both largely determined by the goal structure implemented by educators" (p. 213). They continued by commenting that it is essential that instructors know when to appropriately use a competitive, individualistic, or cooperative goal structure. Advocates of cooperative learning felt that a cooperative goal structure should dominate our classrooms with individualistic and competitive structures integrated to maintain a balance (Johnson & Johnson, 1986; Slavin, 1981).

Cooperative Learning

According to Johnson and Johnson (1986) and Shepardson (1988), there are five essential elements in cooperative learning. They include positive interdependence, student-to-student interaction,

individual accountability, interpersonal and small group skills, and processing.

Positive interdependence is the perception that "we sink or swim together" (Johnson & Johnson, 1986, p. 8). Shepardson (1988) commented that it creates a win/win situation. Positive interdependence is created by establishing mutual goals; dividing up tasks, materials, resources, or information; assigning of roles; and giving group rewards.

Johnson and Johnson (1986) felt that interactions such as debating, questioning, and discussing were an integral part of cooperative learning. Student-to-student interactions, along with positive interdependence, promotes long-term academic and social gains. Shepardson (1988) noted that students in cooperative learning situations are given opportunities to express concepts in their own words, clarify ideas, gain confidence, and increase involvement. He also stated that, as students interact with one another, self-esteem and respect for others increases; thus, students become more aware, accepting, and empathetic. These affective benefits were also evident in Sharan's (1980) study of several cooperative learning structures. He found that helping behaviors promoted social aspects of learning. Helping behaviors have also been found to be the most common variable in predicting achievement of small groups (Webb, 1982).

Individual accountability is a necessity, as a group's success is dependent on the individual learning of each member. Research indicates that individual accountability and group rewards are two

factors which seem to motivate students to be responsible for assigned material (Slavin, 1987a). Johnson and Johnson (1986) gave several suggestions to safeguard against individual members allowing others to do all the work. Practice tests, random selection of members to explain answers, members editing each other's work, and choosing one paper from the group to grade were examples. To further encourage group cohesiveness and individual responsibility towards learning, Slavin suggests totaling individual performance scores to form a group composite. Rewards such as certificates, praise, or grades provide incentive in striving toward a set criteria. Slavin (1983) noted that in 28 studies which used cooperative learning and group rewards, 25 found significantly greater achievement in cooperative compared to control groups using traditional methods.

Interpersonal and small-group skills such as listening, sharing, communicating, resolving conflict, decision making, and tolerance of differences need to be directly taught (Harp, 1987; Johnson & Johnson, 1986). Research suggests that children are not natural collaborators. Observations from studies by Palincsar et al. (1988) showed that a competitive rather than collaborative spirit was existent in children as young as 6 years old.

In teaching collaborative skills, Johnson and Johnson (1986) suggested these measures be taken: (a) students must recognize the need of the skill; (b) the skill must be defined in terminology that students can use when engaging in it; (c) skills must be practiced; (d) discussion of how well the skill was used must follow practice

sessions; and (e) skills should continue to be practiced intermittently as new skills are added. Teachers need to act as consultants, reinforcing positive behaviors and redirecting those not conducive to cooperation. Findings from a study done by Hertz-Lazarowitz, Sharan, and Steinberg (1980) indicated that cooperative learning patterns on the social-interactive level transferred to nonacademic tasks.

Johnson and Johnson (1986) cited that time and procedures for processing must be taken into consideration when using cooperative learning methods. Through reflection and analysis, actions that are beneficial or detrimental to the effectiveness of the group can be identified and dealt with. Group productivity can be enhanced by the continuation or alteration of these actions. Results from a study conducted by Yager, Johnson, Johnson, and Snider (1986) indicated that group processing had a sizeable and positive effect on student achievement.

Advocates of cooperative learning recommended that groups should range in size from two to six students. Groups should be small enough for all members to be actively involved while achieving the intended goal. Results of a study conducted by O'Donnell et al. (1986) supported the use of dyads during the initial acquisition of material. They noted that "overload" and "passivity" can occur within larger groups, as there are more sources of information to attend to and an increase in the amount of time to listen passively to others perform.

Slavin (1987b) and Johnson and Johnson (1986) concluded that cooperative learning groups should be heterogeneous in nature--placing high-, medium-, and low-ability students together. This makeup will promote in-depth understanding, reasoning, and long-term retention as students elaborate, give and receive explanations, and are exposed to differing perspectives.

Research indicated that cooperative learning activities can be structured within a generic framework. According to Kagan (1990), several of the most well-known cooperative learning structures are Jigsaw, Student-Teams-Achievement-Divisions (STAD), Think-Pair-Share, and Group Investigation.

Slavin (1981) described Jigsaw as a method where each group member is responsible for learning and teaching a portion of the assigned material to his/her group. In this process, students meet in "expert groups" which are comprised of members from different groups studying the same information. After discussion, students return to their original group and present to their groupmates.

In STAD, students meet in groups to master material presented by the teacher. Individual students are tested and the group's composite score is determined by the extent of improvement from each member's past performance. Teams with the highest scores are recognized in some manner (Slavin, 1981).

Kagan (1990) and Shepardson (1988) stated that Think-Pair-Share was a strategy popularized by Lyman. After a topic is presented by the teacher, students mentally process what they know about it and

then pair up with another student to discuss their thoughts. Lastly, they share with the entire class.

Group Investigation is a complex method which requires increased student responsibility. Given a general topic, members decide what they will learn, how to organize themselves to learn it, and how they will present it to classmates (Sharan, 1980; Slavin, 1981).

Traditional Reading Instruction

According to the report of the Commission on Reading, Becoming a Nation of Readers (Anderson et al., 1985), teachers have an influence in children's learning through their management of the classroom environment, pacing and content coverage, and in the way they group students for instruction. Studies indicated that about 15% of the variation in reading achievement among students was related to factors such as these.

Anderson et al. (1985) noted that, in a typical classroom, approximately 30% of the day was spent in reading instruction. Traditional reading instruction was depicted by three distinct reading groups, high-, average-, and low-ability, using a basal reading series with worksheets and workbooks as follow-up activities. The report of the Commission on Reading, Becoming a Nation of Readers (Anderson et al., 1985) stated that students were involved in follow-up activities or seatwork 70% of the time designated for reading instruction. Stevens, Madden, Slavin, and Farnish (1987) discovered that as much as two-thirds of a class period was spent on follow-up activities in some classrooms. Similar results were found in a study investigating

student activity among second graders during a typical reading instruction period. Out of 80 minutes allocated to reading instruction, 27 minutes involved the use of worksheets (Thurlow, Garden, Ysseldyke, & Algozzine, 1984). Research indicated that seatwork was often of poor quality and was poorly integrated with other activities.

Conclusions from research reviewed by Palincsar et al. (1988) and Thurlow et al. (1984) were congruent regarding teacher involvement during reading instruction. They observed that little comprehension instruction as well as any type of instruction took place. Rarely did they observe teachers presenting a skill or strategy, demonstrating how to employ them, and providing experiences for student success. Teachers spent the majority of their time assigning tasks, monitoring on-task behavior, conducting recitation sessions to evaluate students' progress, and providing corrective feedback.

Teachers adhere to homogeneous ability groups based on the rationale that materials and pacing can be appropriately adapted to suit a student's level (Anderson et al., (1985). Unsworth (1984) summarized O'Donnell and Moore's findings concerning ability grouping by stating that homogeneous grouping has not been effective in raising reading achievement and ability grouping hardens categories, especially for the low achiever. Unsworth noted that group membership is rather permanent as teachers make few changes in student placement. Thus, the gap between good and poor readers increases as students advance through the elementary grades.

According to Hiebert (1983), "some recent research indicates that manipulations of factors within the reading group may influence achievement-related behaviors and subsequently child outcomes" (p. 244). Hiebert referred to allocation of time and interaction patterns as such factors. Through his review of numerous studies, he concurred that the amount of time students spent in teacher-directed reading groups was positively correlated with reading achievement. It was also noted that the allocation of time differed between groups as teachers spent more time with high-ability reading groups than low-ability ones. Additional differences were discovered in the amount of time spent on various tasks. Students in low-ability groups spent more time on decoding tasks focusing on individual words or word segments, while those in higher-ability groups engaged in more contextual reading. The low-ability groups spent more time reading orally, while high-ability groups frequently read silently. Teachers spent twice as much time dealing with behavior management situations in low-ability groups, as these students were less frequently engaged in the assigned tasks compared to high-ability students. Therefore, low-ability students may have less opportunity to learn since time spent on behavior management has been known to be negatively correlated with learning (Allington, 1983; Bristow, 1985; Hiebert, 1983).

Hiebert (1983), Allington (1983), and Bristow (1985) cited differences in regard to pacing. Low-ability students read only a segment of a story per session, whereas high-ability students read one

story. Yet, teachers required students from both ability groups to complete the same number of worksheet and workbook pages.

Researchers have also detected discrepancies between high- and low-ability groups involving teacher/student interactions. Students in low-ability groups were presented with fewer analytical questions and were given less time to respond in comparison to high-ability groups. Teachers tended to interrupt poor readers, when making oral reading errors, more frequently than good readers (Allington, 1983). In providing assistance, teachers focused on graphophonic cues with low-ability students and semantic and syntactic information with those of higher ability (Allington, 1983; Hiebert, 1983). There were variations in the types of responses teachers allowed from other students during oral reading. "Call outs," or students correcting one another following a miscue, were discouraged more so with high-ability groups in comparison to low-ability groups (Allington, 1983; Bristow, 1985). Teachers permitted fewer interruptions during group time with the high-ability groups than with the low-ability ones (Allington, 1983; Bristow, 1985; Hiebert, 1983).

Another type of interaction Hiebert (1983), Allington (1983), and Bristow (1985) discussed was the communication of information regarding the status of reading groups. Even though clever names were assigned to various groups, teachers made statements insinuating the exclusiveness of the high-ability group. Also, certain resources could only be used by students from the high-ability groups.

Hiebert (1983) stated that "in regard to social outcomes several reviewers have concluded that ability grouping in general has deleterious effects on children's social and affective development, particularly for those in low-ability groups" (p. 244). He found there was a strong correlation between self-perceptions and reading group status. Low-ability students expressed a desire to be in a different reading group and evaluated their abilities and concepts of self much lower than higher-ability students. They expressed more negative feelings towards reading and their reading group in comparison to high-ability students.

Bristow (1985) suggested that the numerous interrelated factors demonstrated in ability grouping not only affects student outcomes but may also attribute to the development of passivity in readers. He indicated that teachers can shape a student's view of reading and influence behavioral outcomes by the reinforcement of certain aspects involved in the reading process. Bristow (1985) continued by explaining that good readers perceive reading as a search for meaning, whereas poor readers view it as a decoding process. As poor readers focus on word calling, they are unlikely to use behaviors necessary for active comprehension and therefore remain passive.

Bristow (1985) reported some specific behaviors demonstrated by poor readers which give evidence of their passivity. In comparison to good readers, poor readers are less likely to monitor their comprehension. They will typically skip words they do not understand and remain oblivious to text inconsistencies. Very little active

questioning takes place. During oral reading, poor readers make fewer corrections and lack the usage of context clues in comparison to good readers. They do not regularly make use of strategies that promote comprehension such as setting a purpose for reading, utilizing text cues and background knowledge, focusing on main ideas, making predictions and inferences, and drawing conclusions. Poor readers require specific instruction and practice in using strategies effectively. This was confirmed in a study conducted by Stevens (1989) examining the use of strategies in comprehending expository text. Results suggested that younger or less proficient readers would profit from systematic training and practice of strategies.

Allington (1983) summarized his view concerning the differences between readers by stating, "good and poor readers differ in their reading ability as much because of differences in instruction as variations in individual learning styles or aptitudes" (p. 549). Until the instructional environment of poor readers is changed to resemble that of good readers, it is Allington's belief that the potential for improvement among poor readers is unlikely.

Implications of Student-to-Student Interactions in Reading

When reviewing outcomes of cooperative learning, several researchers concluded that "the overall effects stand as strong evidence for the superiority of cooperation in promoting achievement and productivity. . . .Educators may wish to considerably increase the use of cooperative learning procedures to promote higher achievement" (Slavin, 1983, p. 430). Madden (1988) noted that a cooperative group

structure can promote learning for all students and may be especially beneficial to those experiencing reading difficulties.

According to Johnson and Johnson (1985), a variable contributing to higher achievement in a cooperative group structure is student-to-student interaction. This interaction among students allows for the verbalization of ideas thus leading to a higher level of understanding. This was confirmed in a study conducted by Yager, Johnson, and Johnson (1985) when examining the effects of oral discussion within cooperative groups. They discovered that the cognitive processes necessary for a deeper level of understanding, as well as internalization, occurred only through dialogue and interaction. Shepardson (1988) cited that, as student verbalization increases, comprehension improves.

Gillet and Temple (1986) noted that the development and activation of a reader's prior knowledge is important in comprehension. During the process of reading, information from the text and a reader's background knowledge interact to produce meaning. If a student's background knowledge is sufficient, comprehension will take place with greater ease. However, if prior knowledge is deficient, more processing must take place in understanding the author's intended message. Research has indicated a student's knowledge base can be extended through the collaboration of ideas and information. Uttero (1988) found cooperative learning methods to be conducive to activating a student's prior knowledge with the use of a teaching model she developed with intermediate grades in content area

reading. A component of the model was the connection phase, in which students worked in small groups prior to reading the text. Several activities Uttero implemented included: brainstorming (group members generated ideas related to a key vocabulary word); categorization (classification of thoughts through semantic mapping); and comparing and contrasting (students' generated lists of similarities and differences in chart form). Each student assumed some type of responsibility within their group and after information was generated in small groups it was shared and discussed with the total class. Positive benefits resulted, especially for the low-achieving student.

Prior knowledge and the process of prediction are closely related (Gillet & Temple, 1986). According to Palincsar and Brown (1986) and Nessel (1987), predicting helps set a purpose for reading and provides an opportunity for students to activate their background knowledge as well as facilitate the use of text structure. As readers predict, they hypothesize what the author will discuss next and link new knowledge with knowledge they already possess. Nessel (1987) suggests stopping at major turning points of a story and having students respond to these two questions: (1) What do you think will happen next, and (2) Why do you think so? He states that this strategy provides information about a student's reasoning abilities and is a useful measure of comprehension as students retain or relinquish previous predictions. Nessel also noted that student-to-student interaction is an important facet in the use of this strategy due to the verbalization of different perspectives. As students are exposed

to various angles, deeper understanding and careful evaluation of story events is encouraged. Johnson and Johnson (1987) cited that perspective taking is related to effective comprehension of information. Webb (1982) noted that exposure to different perspectives can also result in opinion changing, whereby a process of conflict-resolution-learning takes place. During this process, a student experiences inner conflict due to feelings of uncertainty; this, in turn, provides motivation to seek new information and reorganize what they know.

Research indicates that interaction within a group structure can facilitate the use of oral summarization, elaboration, and metacognitive activity (Larson et al., 1985; O'Donnell et al., 1985). In several studies conducted by Yager et al. (1985), Larson and Dansereau (1986), and O'Donnell et al. (1985) results were similar in regard to the effects of explaining, summarizing, and elaborating on material being learned. Researchers found that mastery, comprehension, and retention were promoted. Each study incorporated a basic cooperative learning technique which involved students working in dyads. After reading approximately 500 words of a 2,500 word passage, students assumed a role as recaller or listener/facilitator. The recaller summarized orally from memory what had been read while the listener/facilitator monitored the process by correcting errors and omissions as well as elaborating on the summary. Roles were alternated when a determined portion of the passage was read. Elaborative activities involved creating images, making analogies, and

personalizing the information to make it understandable and memorable. According to Webb (1982) information is easier to learn in an interactive group as students use a language that is understandable.

Each researcher examined a specific aspect of the learning technique. O'Donnell's et al. (1985) study indicated that cooperative interaction and multiple elaborations contributed to improved performances during the initial acquisition of information. Results from Larson's et al. (1985) study suggested that a cooperative group structure facilitated metacognitive activity because students effectively assisted each other by correcting comprehension errors and locating key ideas. Larson et al. (1985) stated that direct instruction and individual feedback regarding metacognitive skills promoted transfer to individual learning tasks. Yager et al. (1985) concluded that intermittent summarizing accounted for an increase of information recalled. When oral discussion was structured by the assignment of specific roles, retention and achievement were increased. They also found that all students, high-, medium-, and low-achieving, benefited from working in a heterogeneous cooperative learning group.

Several other related studies gave evidence of the benefits of student-to-student interaction in a cooperative group structure. A study conducted by Stevens et al. (1987), entitled Cooperative Integrated Reading and Composition (CIRC), and Glassman's (1988) replication of CIRC, involved third and fourth graders in heterogeneous learning teams for reading, language arts, and writing

activities. The CIRC program consisted of three main elements: basal-related activities, direct instruction in reading comprehension, and integrated language arts and writing. Instructors used basal readers and reading groups similar to a traditional structure. However, during follow-up activities, teams comprised of pairs of students from different reading groups worked on partner reading, decoding, story structure, prediction, and summarization activities. Once a week, students received direct instruction on comprehension and metacognitive strategies such as identifying main ideas and drawing conclusions, followed with team practice. The writing process involved peer conferencing during the planning, revising, and editing stages. Also, direct instruction, along with team practice, focused on language mechanics and expression activities. Positive interdependence and individual accountability were instilled as team members received points based on individual accomplishments from quizzes, book reports, and other activities. Points were totaled to form a group composite score and teams reaching a designated criteria were rewarded. Compared to control groups, the results of the studies were positive, as there was greater achievement on standardized tests of reading comprehension, reading vocabulary, language expression, language mechanics, and spelling. Slavin et al. (1988) noted that results were similar for all students, including those in special education and remedial reading classes. In regard to ability grouping, remedial pull-outs, and special education, Slavin, Stevens, and Madden (1988) stated that "individual differences of all kinds are

best dealt with within the heterogeneous classroom, but to accomplish this, classroom organization must be capable of providing for students' individual needs, whatever they may be" (p. 61).

Flynn (1989), Smith (1989), and Uttero (1988) noted that student-to-student interaction within a cooperative group structure promoted critical reading skills. Flynn (1989) examined the use of an instructional model entitled IDEAL (Identifying, Defining, Exploring, Acting, and Looking) within a cooperative setting. In her own classroom, Flynn indicated that there was an increased opportunity to analyze, synthesize, and evaluate ideas through cooperative problem solving thus promoting the development of independent critical readers.

Student-to-student interaction is valuable as a means of promoting positive attitudes toward learning and in increasing motivation (Shepardson, 1988). When studying the effects of cooperative learning methods in content-area reading, Uttero (1988) discovered that low-achieving students, who viewed themselves as unsuccessful learners, began to demonstrate positive attitudes toward school and themselves. Glassman's (1988) study, modeled after the CIRC program, gave evidence of positive attitudes developed toward reading. At the conclusion of the study, students rated their perceived ability by responding in one of the following manners: "I am really good at this; I do all right at this; or I am not very good at this" (p. 44). In the area of reading, students from cooperative

groups evaluated their abilities significantly greater than those in control groups.

Madden (1988) felt that when poor readers are assigned responsibilities and have the opportunity to feel important to their cooperative group they become more internally motivated. It is Madden's belief that as internal motivation takes over, reading growth results. Also, Johnson and Johnson (1978) stated that there is experimental evidence that cooperative learning structures, compared with individualistic ones, result in more intrinsic motivation.

According to Shepardson (1988) and Larson and Dansereau (1985), additional benefits of a cooperative group structure are improved classroom management and an increased opportunity for teacher monitoring of students. Several factors contributing to improved classroom management are increased opportunities for participation, development of self-esteem, and academic success.

Both Uttero (1988) and Larson and Dansereau (1985) found a cooperative group structure conducive to effective monitoring. Teachers had more time for individual diagnosis and feedback since students were working in small groups. They also discovered that the dialogues between students were informative in evaluation of strengths and weaknesses.

In summary, research indicates serious drawbacks for the low-achieving student involved in a traditional reading program characterized by ability grouping. Evidence was given that factors within the reading group such as allocation of time and interaction

patterns have an influence on a student's view of reading, social and affective development, and achievement related outcomes. The literature presented discrepancies involving these factors among lower and higher ability groups. Overall, research findings indicated positive academic and social outcomes with a cooperative group structure involving heterogeneous grouping. Benefits of cooperative learning structures were concluded with a range of ages and a variety of subject matter including that of reading. Student-to-student interaction contributed to: verbalization of ideas, activation of prior knowledge, expansion of the knowledge base, use of prediction strategies, oral summarization and elaboration techniques, metacognitive activity, retention of information, critical thinking skills, positive attitudes toward learning, and motivation. All of these factors are related to achievement in reading (Johnson et. al, 1984; Larson et. al, 1985; O'Donnell et al., 1985; Unsworth, 1984).

CHAPTER III

METHODOLOGY

Purpose of Study

The purpose of this study was to determine the effect on Chapter 1 students when working in a cooperative group structure during reading. Subjects' inclusion in the study was the result of their being identified through testing measures as low achievers in reading.

Subjects

The subjects consisted of two groups of second-grade students involved in a Chapter 1 pull-out program. They received 30 minutes of instruction on a daily basis from the Chapter 1 teacher. Group A was comprised of 2 females and 3 males. Group B consisted of 1 female and 3 males. Each group met during separate class periods.

The students attended an urban elementary school which consisted of approximately 300 students with a 40% minority population. The majority of the subjects of this study came from low-income, blue collar families.

Procedure

This 10-week study was conducted in a Chapter 1 classroom. In determining the effects of a cooperative group structure on Chapter 1 students, each group of second graders received both the experimental and control treatments. The experimental treatment was implemented with Group A during the first 5 weeks, while Group B received

treatment as a control. During the last 5-week period, the groups alternated roles, with Group B receiving the experimental treatment and Group A being the control.

During the course of the study, identical materials and the following sequence were used with both treatments: introduction of new vocabulary; review of previous words; oral reading; direct instruction and application of reading comprehension strategies, such as identifying main ideas, predicting, and summarizing; activities that extended the literature and reinforced strategies; and individual assessment. The primary source of curriculum was a book entitled In the Dinosaur's Paw (Giff, 1985), which was supplemented with a variety of literature maintaining a thematic approach.

Both treatments had teacher-directed instruction in a total group setting for the introduction of new vocabulary words, discussion of the previous chapter read, and usage of reading comprehension strategies. During the discussion of the book, an emphasis was placed on structural components of the story (e.g., characters, problem, and solution). New vocabulary was presented through a phonetic/contextual approach where students were given sentences with vocabulary words deleted. Students attempted the missing word by attending to context and/or graphophonic cues supplied by the instructor. The use of context was stressed throughout the process.

Periodically, students received direct instruction on reading comprehension strategies by teacher modeling, followed with student practice. To focus on identification of key ideas and connection of

prior knowledge with new information, students were instructed to consider the following questions after reading a designated portion of material: (a) What is the most important event that happened?, (b) What do you think will happen next? and, (c) Why do you think so? Specific instruction assisted students in differentiating between main ideas and supporting details. Modeling and guided practice were necessary in helping students with proper retelling and summarization techniques. Also, direct instruction was given on a word attack strategy that students could use when encountering unknown words. Students were instructed to skip the unknown word and read to the end of the sentence. To determine the difficult word, they were instructed to return to the beginning of the sentence to focus on context and the beginning letters or familiar word parts.

Activities which were used as an extension of the literature were journal writing, dramatizing, choral reading of poetry, and book publishing. Students completed cloze passages (teacher-constructed based on the literature used) and were required to record at least three key ideas following the reading of each chapter as a means of reinforcing strategies directly taught.

Individual assessments consisted of comprehension questions, retellings, and identification of vocabulary words. Comprehension questions were teacher-selected, based on explicit and implicit information from the material used.

Experimental Treatment

Students receiving the experimental treatment worked on the same material with the same activities as the control group, only the experimental group worked in dyads for the majority of the time. The Chapter 1 instructor assigned partners based on ability and social interactive skill. Realizing the limitations of a Chapter 1 setting, an attempt was made to form heterogeneous dyads as much as possible. Dyads participated in the following activities.

Partner reading. Students read the story orally with their partner by assuming a role as reader or recaller and alternating roles after a designated portion of material. The reader usually read one page orally while the recaller followed along and assisted in the usage of the previously discussed word attack strategy. After reading, the recaller summarized what was read. During this time, the reader acted as a facilitator directing the discussion with fixed questions: "What is the most important event that happened?", "What do you think will happen next?", and "Why do you think so?". The reader was trained to correct inaccurate information and encourage elaboration of summaries.

Main idea. After completing a chapter, members from a dyad jointly identified at least three key ideas presented in the material. One student assumed the role as recorder, recording information while the other assisted in spelling and recalling what was to be written. Each student took turns reporting information during total group

discussion. The completed paper was given to the instructor, signed by both members of the dyad.

Story retelling. After discussing a chapter with the total group, students summarized it with their partners by retelling the events in order and adding supporting details. Each member of the dyad assumed a role as reteller or listener/facilitator, alternating roles to give each person the opportunity to participate in both roles. Once again, the listener/facilitator corrected inaccuracies and encouraged elaboration.

Vocabulary review. Students reviewed vocabulary words with their partners once again, each maintaining a specific role. One partner acted as the teacher, presenting words as the other member identified them. Roles were alternated, and in the process students were trained to use various techniques to assist their partner in recall of difficult words.

Extension and reinforcement activities. Dyadic involvement was implemented when the activity lent itself to a dyadic group structure. For example, dyads were used in completing cloze passages. They were also used in the process of locating facts to create a published book. Each student assumed a specific responsibility in completing or producing one product per group. The finished work was signed by each member of the group and given to the teacher.

As students worked in dyads, the teacher's role was to act as a consultant or coach intervening and providing feedback when necessary. To establish student-to-student dependency, the instructor allowed

students to rely on one another as much as possible before providing assistance.

Throughout the experimental treatment, an attempt was made to incorporate the necessary elements which distinguished a cooperative group structure. Positive interdependence was established through mutual goals, giving one copy of materials to each group, assigning students differing roles, and giving joint rewards. Rewards were presented specifically for achievement in identification of vocabulary words. After practicing in dyads, students were individually tested on words. Individual scores were added to form a total group score. If this equalled or exceeded the criteria set by the instructor, rewards such as stickers or bookmarks were given to each student. Individual accountability was achieved through individual assessments and random selection of members to explain answers during group discussions.

Listening was an interpersonal and small-group skill targeted during this study. The skill was specifically defined and practiced during training sessions.

Occasionally, time was allowed for group processing as students gave feedback on the functioning of their dyad. Areas needing improvement were identified and given attention during subsequent cooperative activities.

Control Treatment

The control treatment typified a traditional structure, with the majority of student activity taking place in a group setting much like

that of a reading group. The teacher was directive and controlling, allowing little interaction among students. Work was completed independently to resemble typical seatwork activity. The exact sequence of activities was followed as with the experimental treatment. A further description of the procedure administered is as follows:

Oral reading. Students took turns reading orally within the group. As one student read all others were expected to follow along. At the end of each page, questioning identical to the experimental treatment was directed by the teacher. The instructor maintained control of the interaction by selecting students to respond, correcting inaccurate information, and encouraging elaborations.

Main idea. This resembled independent seatwork. Students were separated and given no assistance. They were required to record at least three key ideas presented in a chapter.

Story retelling. In a total group setting, students retold the events of a chapter with the teacher selecting various members to supply a portion of information.

Vocabulary review. Students responded chorally as the instructor flashed words. Little attention was given if an individual student experienced difficulty.

Extension and reinforcement activities. The majority of these activities were completed independently. Students were not allowed to help one another.

Individual assessments were the same as the experimental treatment. However, there was no cooperative practice time given prior to testing. Rewards were presented to individuals achieving a set criteria on recognition of vocabulary words.

Data

The following data were collected for both the experimental and control treatments to provide information about students' attitudes toward each learning structure as well as the behaviors and interaction patterns exhibited within each structure. Comprehension and the use of strategies were also examined. This was accomplished through observation, student interviews and evaluations, samples of student work such as cloze passages and identification of key ideas, and results from individual assessments.

Observations were recorded daily, noting information such as the verbal exchange during student-to-student interaction, use of social skills, and on- and off-task behaviors. Informal student interviews were conducted periodically, and an evaluation form was used in determining attitudes toward participation in each treatment at the conclusion of the study. Samples of student work, tape-recorded retellings, and vocabulary scores were collected from four chapters. A total of two cloze passages were completed, one at the beginning of each treatment. A comprehension check was administered at the end of the first 5-week period.

Scoring of Data

Scoring was necessary for the following data. Any additional data were descriptive in nature and, therefore, did not require specific scoring.

Vocabulary

Students received a percentage score based on the number of words identified correctly. An average score was determined for each student's performance during participation in the experimental and control treatments. A composite score was derived for each group to compare overall performance in each treatment.

Comprehension

Comprehension was assessed and scored by the following methods:

1. Main idea. Students were required to record at least three key ideas presented in a chapter. Responses from the students were compared with key ideas selected by the teacher. One point was received for each matching response and the number of irrelevant answers was noted.

2. Story retelling. Retellings were scored holistically, each receiving a rating from 0-3, based on an overall organizational rating sheet (see Appendix A). The number of accurate events recalled as well as inaccuracies were recorded. The sequencing of events retold was classified as poor, good, or excellent. Notation was made regarding the retelling's beginning, middle, and ending and how closely it matched the author's. The number of dialogue statements recalled was also recorded. Individual ratings were totaled to form

each group's composite score to compare performance in the experimental and control treatments.

3. Comprehension evaluation. Review questions were teacher-selected and scored based on the material covered. Students received one point for each correct response.

Attitude and Interest

Throughout the study, comments were noted during informal interviews. At the conclusion of the study, students responded to an evaluation form (see Appendix B). Student replies were recorded and tallied.

CHAPTER IV

RESULTS

The purpose of this study was to determine the effect on Chapter 1 students when working in a cooperative group structure during reading. Data were collected concerning: (a) achievement in the areas of vocabulary and comprehension; (b) effect of student-to-student interaction; and (c) affective aspects, such as social skills and attitudes toward each learning structure. Results concerning each area are presented in this chapter.

Academic Achievement

Vocabulary

The effect of a cooperative group structure was considered on identification of vocabulary words. Table 1 shows the average percentage each student received in the experimental and control treatments. The table also gives Group A's and Group B's average percentage within each treatment.

Results indicated that Group A's and Group B's overall performance was superior when involved in a cooperative group structure. All students in Group A had a higher average score in the experimental treatment. Two students in Group B had increased scores in the experimental treatment. One student performed better in the control treatment and 1 student's scores were equal in both treatments.

Table 1

Vocabulary Assessment

Group A	Average Score	
	Experimental Treatment	Control Treatment
Student 1	100%	93%
Student 2	92%	88%
Student 3	96%	97%
Student 4	100%	98%
Student 5*	--	--
Total Ave. Score	97%	94%
Group B		
Student 6	100%	85%
Student 7	100%	86%
Student 8	96%	100%
Student 9	100%	100%
Total Ave. Score	99%	93%

Note: Student #5 scores were omitted due to absenteeism.

Comprehension

The effect of a cooperative group structure was examined in the area of comprehension. Results are indicated in the following categories: story retellings, identification of main ideas, and comprehension evaluation.

Story retellings. Tables 2 and 3 show the ratings students received on four retellings. Retellings were based on chapters 3, 4, 5, and 6 from the book, In the Dinosaur's Paw. The table also gives Group A's and Group B's total score of each chapter retold. A composite score indicating overall performance in the experimental and control treatments was also determined.

Results showed Group A's overall performance was increased in the experimental treatment. Two students' ratings were improved in the experimental treatment, 1 student received higher ratings while in the control group, and 1 student's scores were balanced between both treatments.

Group B had a higher overall composite score in the control treatment. Three students received higher ratings in the control group and 1 student's ratings were superior in the experimental treatment.

Specific components such as accurate and inaccurate events, dialogue statements, sequence of events, and beginning, middle, and endings were examined. There were not any major differences in the number of inaccurate and accurate events told with Group A. However, 3 students from Group B retold more accurate events while in the

Table 2

Story Retellings--Organizational Rating--Group A

Group A	<u>Experimental Treatment</u>		<u>Control Treatment</u>	
	Retelling Rating Chap. 3	Retelling Rating Chap. 4	Retelling Rating Chap. 5	Retelling Rating Chap. 6
Student 1	3	3	3	3
Student 2	1	0	0	2
Student 3	3	2	2	2
Student 4	3	1	1	0
Student 5*	-	-	-	-
Column Totals	10	6	6	7

Note. Student #5 scores were omitted due to absenteeism.

control treatment. All students remained balanced in the number of dialogue statements recalled with the exception of 1 student from Group B who showed a significant increase when participating in the experimental treatment. Two students from Group A demonstrated improved sequencing of events in the experimental treatment whereas two students from Group B performed better in the control group.

Retellings from the experimental treatment were analyzed for similarities. Students 3 and 4 worked as partners and had several resembling statements in their retellings.

Table 3

Story Retellings--Organizational Rating--Group B

Group B	<u>Control Treatment</u>		<u>Experimental Treatment</u>	
	Retelling Rating Chap. 3	Retelling Rating Chap. 4	Retelling Rating Chap. 5	Retelling Rating Chap. 6
Student 6	3	2	2	2
Student 7	2	2	1	0
Student 8	1	2	0	1
Student 9	2	1	3	1
Column Totals	8	7	6	4

Note. Student #5 scores were omitted due to absenteeism.

Main idea. Table 4 indicates the number of main ideas students identified after the reading of chapters 3, 4, 5, and 6. Students were required to record at least three key ideas and when participating in the experimental treatment they worked jointly in dyads to complete the task.

Overall, Group A performed better in the experimental treatment. Three students' scores were greater when working in dyads and 1 student's scores remained balanced between treatments.

Group B's overall performance was stronger in the control treatment. Two students showed an increase in scores when working

Table 4

Identification of Main Ideas

Group A	<u>Experimental Treatment</u>		<u>Control Treatment</u>	
	Chap. 3 Score	Chap. 4 Score	Chap. 5 Score	Chap. 6 Score
Student 1	3	2	2	3
Student 2	3	2	0	0
Student 3	2	3	1	1
Student 4	2	3	1	3
Student 5*	-	-	-	-

Group B	<u>Control Treatment</u>		<u>Experimental Treatment</u>	
	Chap. 3 Score	Chap. 4 Score	Chap. 5 Score	Chap. 6 Score
Student 6	2	2	2	1
Student 7	1	2	1	-
Student 8	1	1	1	3
Student 9	2	2	2	1

Note. Student #5 scores were omitted due to absenteeism. Students 1 and 2, 3 and 4, 6 and 9, and 7 and 8 worked as partners.

individually and 1 student's scores demonstrated improvement when participating in dyads.

Several students seemed to experience difficulty in distinguishing the difference between main ideas and supporting details. In one dyadic situation, clarifying was observed when 1 student stated an unimportant detail and the partner responded with, "That's not something important in the story."

Comprehension evaluation

Comprehension was evaluated as at the end of the first treatment period. A second evaluation at the conclusion of the study was planned but was unable to be administered due to circumstances beyond the researcher's control. Table 5 shows the score each student received based on the number of correct answers they received during a comprehension evaluation consisting of review questioning.

The results indicated that students involved in the experimental treatment had an increased score compared to students in the control group. Overall, scores were consistent with student performance in the retellings and identification of main ideas. In the experimental treatment, 1 set of partners working in dyads had similar results and 1 pair did not.

Student-to-Student Interaction

A powerful element in a cooperative group structure is that of student-to-student interaction. The effect of student-to-student interaction was observed in facilitating the use of reading strategies and verbalization of ideas during oral reading.

Table 5

Comprehension Evaluation

Group A	Score
Student 1	3.0
Student 2	1.5
Student 3	3.0
Student 4	2.5
Student 5*	--
Column Total	10.0

Group B	Score
Student 6	2.0
Student 7	3.0
Student 8	0
Student 9	3.5
Column Total	8.5

Note. No score was available for Student #5.

Reading Strategies

Observations were noted on the use of a word attack strategy that students were instructed to use when encountering unknown words. This strategy was implemented frequently when students were involved in the experimental treatment. Students in Group A seemed to assist their partners more readily than students in Group B. Students used a variety of methods when assisting their partner in identification of unknown words. Sometimes clues related to the meaning were given. For example, one student gave the following clue for the word pad, "It is like something you write on." At times, students stated a portion of the unknown word as a clue. In attempting the word "simple," one student said, "It's like sim . . ." Another method noted was creating a new sentence that the unknown word would make sense in. One student assisted his partner in identifying the word "spot" by stating, "You have to clean every other _____ on your plate."

When students participated in the control treatment, they rarely assisted one another with the use of clues, even though it would have been permissible for them to do so.

Assistance was given by calling out the unknown word for the student experiencing difficulty. "Call outs" were frequent and at times seemed to disturb the student who was reading. This feeling was indicated as students made statements such as, "I knew that word" or "Let me say the word." The teacher also noticed an increased tendency to call out words for the students and felt the interruptions were numerous and annoying.

Oral Reading

Observations were recorded on interactions between students during oral reading, questioning, summarizing, and predicting. Generally, students participating in the experimental treatment were all actively involved, each assuming a role during partner reading. Off-task behavior was very minimal. In contrast, off-task behavior was definitely evident from both groups when participating in the control treatment. Behaviors such as not following along, gazing around the room, unrelated conversation, reading ahead, and interruptions occurred while another student was reading. The teacher took time away from the task in dealing with these situations.

An additional observation was noted during oral reading in the experimental treatment. Students were instructed to read an entire page before switching roles. After the second day of using a cooperative group structure, one dyad was observed taking turns reading by sentences instead of pages. When asked why they were reading this way, one student commented, "We wanted to share and it was easier."

After reading each page from the book, In the Dinosaur's Paw, a procedure involving questioning and predicting took place. Once again students in the experimental treatment were participating and taking an active role in the verbalization of ideas. In one case, a student from Group B seemed unwilling to participate due to an apparent behavior problem but eventually became actively involved without teacher intervention. Partners were observed helping one another

recall specific questions such as, "What is the most important event that happened?", "What do you think will happen next?", and "Why do you think so?". Students from Group A seemed more willing to encourage clarification and elaboration of comments in comparison to Group B. Evidence of this was demonstrated as students frequently used prompts such as, "What about . . . ?" or "What happened when . . . ?" Notation was also made in regard to the consistent use of affirming statements between partners. This frequently occurred when one member of the dyad responded correctly to questioning. Comments like, "That's good!" and "I agree" were used. The accuracy of responses during questioning was balanced between both the experimental and control treatments.

Questioning was directed by the teacher in the control treatment. Students were less willing to volunteer information in comparison to the experimental treatment. A consistent pattern was observed as the same students were always eager to contribute answers. Often the teacher would call on students directly to encourage equal participation. Off-task behavior frequently occurred from uninvolved students. Competitive statements were voiced from members of Group B during teacher questioning. For example, the comment, "You took my answer!" was noted several times.

Affective Development

The effect of a cooperative group structure was observed on social outcomes and attitudes toward each learning situation. The

type of learning structure used during instruction had an influence on a learner's affective development.

Social outcomes

Social skills such as listening, sharing, communicating, decision making, resolving conflict, and tolerance of differences were observed. The experimental treatment gave students the opportunity to make decisions. After a task was assigned and roles such as the reader, recorder, and listener were explicitly described, students were allowed to choose which role to assume. The decision-making process occurred between members of a dyad. Observations indicated that members in Group A seemed to make decisions quickly, with little conflict. Usually each member participated in the decision making process rather than one member dictating to the other. It was noted that when both members wished to have the same role a compromising action usually took place and sharing resulted. For example, in one situation Students 1 and 2 had difficulty in deciding who was to be the reader and the recorder. They settled the conflict by switching roles midway into the task thus allowing each to have a turn.

Members of Group B seemed to have a difficult time in deciding which roles each member would assume. Dissension was evident as many times students wanted the same role; therefore, teacher intervention was frequent. The teacher mediated situations after sufficient time was given to resolve the conflicts independently. Mediation usually occurred in the form of suggestions.

Other conflicts occurred within dyads from Group A and Group B. On one occasion, a student from Group A seemed upset and hesitated to read with her partner. The student made the comment, "She always tells me the words and I don't like it." Teacher suggestions seemed to take care of the problem. Members of Group B had a difficult time accepting who they would be working with in their dyad. When partners were initially assigned, all students refused to work with their designated person. Statements such as, "I can't work with him, we don't get along" and "I won't read with her" were voiced. After several minutes, students began working with one another and the opening conflict seemed to lessen as students became actively involved.

Throughout the study, the teacher gave dyads the opportunity to resolve conflicts before intervening. Little intervention was noted with Group A, whereas frequent mediation was observed with Group B.

Listening was the specific interpersonal skill targeted with both groups. Defining, practicing, and processing took place. Both Groups A and B appeared to benefit from this focus. Group B required increased monitoring of the skill in comparison to Group A.

Attitudes

Daily observation, informal interviews, and an evaluation form at the conclusion of the study were used in determining the attitudes and feelings of students toward each learning situation. Informal interviews were interspersed throughout a variety of activities.

Overall, Group A indicated a preference in working with a partner rather than by themselves. This was expressed in activities such as reading orally, identifying three main ideas, completing cloze passages, and summarizing before retellings. Some comments supporting a cooperative group structure were as follows: "It was fun working with a partner," "I like reading with a partner because I can help him out with words," "My partner would have an idea and I would have an idea," and "When we talked things over with a partner it was easier for me to remember." Occasionally, students indicated that they would have rather worked by themselves. Reasons given were, "Because when my partner reads it takes forever" and "If I do it by myself I don't stop to argue." Comments were similar when participating in both the experimental and control treatments. After Group A switched to the control treatment several remarks were made in regard to the task assigned: "I want to do it with a partner," "This is going to be hard," and "I need help."

Students from Group B expressed a combination of feelings. One student consistently indicated he would rather work by himself. His reasoning was that "it was quicker." The other 3 students' opinions varied from one activity to another. For example, 1 student felt it was fun to work with a partner when identifying main ideas but when completing the cloze passage she preferred doing it by herself because, "I like my privacy."

At the conclusion of the study, students were asked to fill out a cooperative learning evaluation form. With 7 students responding,

6 indicated that they would rather read with a partner and 1 preferred reading in a group. Four students felt they would rather do their daily work with a partner and 3 preferred working by themselves. Three students thought they worked well with their partner, 1 did not, and 3 felt they did sometimes. When asked what was the best thing about working with a partner, 6 students stated, "It was fun," and 1 student said, "It was fun and my partner had ideas." Students expressed a variety of answers when asked what was something they disliked when working with a partner. Comments are as follows: "My partner was too slow", "When he didn't really think about what would happen next", and "I like to work by myself." Lastly, 6 students noted that they learned best when working with a partner and 2 students indicated their best learning method was when working by themselves.

Results from the evaluation and informal interviews indicated overall positive feelings towards a cooperative group structure. Group A had a stronger preference for working cooperatively than did Group B.

CHAPTER V

SUMMARY, DISCUSSION, AND IMPLICATIONS

This chapter consists of three parts. The first part is a summary of the first four chapters. In the second part, findings of this study are discussed and last, implications for instruction and further research are given.

Summary

The review of literature depicts traditional reading instruction as that of homogeneous ability grouping where students use a basal reader with worksheets and workbooks as follow-up activities. A considerable amount of time is spent on seatwork that is poorly integrated and is lacking in quality. There is evidence that the effects of ability grouping can be detrimental to the learner. The literature strongly suggests that outcomes regarding academic achievement and social and affective development are affected by the type of instructional grouping a student is involved in. This is especially true for that of the low-achieving student.

Researchers such as Allington (1983) felt it is a necessity for poor readers to experience an environment resembling that of good readers if the gap between good and poor readers is to lessen. Differences between low- and high-ability groups are apparent in allocation of time and interaction patterns. Low-ability groups spend more time on tasks such as decoding and oral reading. Teachers spend

twice as much time dealing with behavior management situations in low-ability groups in comparison to high-ability groups. Therefore, instructional learning time is lessened. Low-ability groups are presented with few analytical questions and are interrupted frequently when making oral reading errors. Interruptions are in the form of student "call outs" and teacher corrections. Group status assists in shaping a student's self-perception and attitude toward reading. Poor readers typically demonstrate negative feelings toward reading and have a low self-concept. It is also believed that the passive behavior characteristic of poor readers may be a result of factors within homogeneous ability grouping.

Increased attention is being given to a learning structure that eliminates the confines of homogeneous ability grouping. Cooperative learning involves small heterogeneous groups of students working together to accomplish shared goals. There is a spirit of cooperation as learners seek to achieve outcomes which are beneficial to all. The elements of positive interdependence, student-to-student interaction, individual accountability, interpersonal and small group skills, and processing interact together to help in producing positive academic and social outcomes. The literature gives evidence of benefits occurring with a wide range of ages and a variety of subject areas. Academic tasks involving concept attainment, verbal problem solving, retention and memory, motor performance, and guessing-prediction-judging are shown to result in high achievement with the use of cooperative learning. A cooperative group structure is conducive to

the development of such things as higher reasoning skills, positive attitudes toward subject matter, and competencies involved in cooperation. All students, the handicapped and nonhandicapped and those of different ethnic groups and abilities, have the opportunity to develop respect toward one another and experience success.

Specific aspects of reading are fostered through a cooperative group structure. Comprehension is improved through the verbalization of ideas. As students interact expressing differing perspectives, a higher level of understanding results. A student's knowledge base is extended through the collaboration of ideas and information. A cooperative group structure is conducive to the activation of a learner's prior knowledge and facilitates the use of reading strategies involving prediction, oral summarization, elaboration, and metacognitive activity. Critical reading skills are promoted as students are given the opportunity to analyze, synthesize, and evaluate cooperatively. Students are motivated and allowed to feel important with assigned responsibilities. Positive attitudes toward reading develop as students experience success in a cooperative group structure. From the instructor's view, cooperative learning allows increased opportunity for monitoring of students. As students are working in small groups the teacher can circulate giving feedback and assistance to individuals or groups that necessitate support. The opportunity to listen to dialogues between students is important and informative in naturalistic assessment.

All students seem to benefit from a cooperative group structure especially those experiencing learning difficulties. Therefore, the intent of this study was to determine the effect on Chapter 1 students when working in a cooperative group structure during reading.

This study was conducted in a Chapter 1 classroom with two groups of second-grade students. Both groups were exposed to the experimental treatment for a 5-week period and to the control treatment for a 5-week period. The experimental treatment was a cooperative group structure, with students working in dyads to accomplish assigned tasks. The majority of activities in the control treatment took place in a homogeneous reading group structure and follow-up work was completed independently. Data were collected regarding academic achievement in vocabulary and comprehension. The effects of student-to-student interaction were observed. Affective aspects such as social skills and attitudes were also examined.

Results indicated that working in a cooperative group structure was conducive to the students' ability to identify vocabulary words. This was true for both Groups A and B.

Comprehension was examined primarily through chapter retellings and the identification of main ideas. Overall, Group A demonstrated improved performance while participating in the experimental treatment. Group B exhibited preference for working in the control treatment.

Student-to-student interaction was observed in facilitating the use of reading strategies and verbalization of ideas during oral

reading. During exposure in the experimental treatment, individuals from both groups provided assistance to their partners when encountering unknown words within the text. Students were observed making use of a word attack strategy directly taught by the teacher as well as making use of methods developed on their own. Assistance was primarily given in the form of student "call outs" during participation in the control treatment. Differences were noted in regard to behavior during oral reading between the two treatments. A considerable amount of off-task behavior was observed from students in the control treatment. While students were involved in the experimental treatment, the majority were actively engaged in the assigned task. On-task behavior was observed during oral reading and in the use of a procedure consisting of questioning, summarizing, and predicting. There were not any major differences in the types of responses students gave during questioning, summarizing, and predicting within each treatment; however, in the experimental treatment all students were given the opportunity to verbalize ideas and assume responsibility for learning. Observations indicated that Group A was able to handle responsibilities and encourage elaborative and clarifying comments more so than Group B. Helping behaviors and affirmative remarks were noted frequently with Group A.

Attention was given to the social skills of listening, sharing, communicating, decision-making, resolving conflict, and tolerance of differences. The experimental treatment allowed students the opportunity to make decisions. The control treatment was teacher-

directed and teacher-controlled; therefore, the occasion for student decisions rarely occurred. It was noted that members of Group A experienced little conflict in the decision-making process and sharing often resulted. Both groups experienced various conflicts when participating in the experimental treatment and were given the chance to resolve them independently without teacher intervention. Teacher mediation was common with Group B. Both groups benefited from practice directed toward the specific skill of listening.

Overall, students thought working in the experimental treatment was fun and they enjoyed helping one another and receiving each other's ideas. Members of Group A generally indicated a preference for working in a cooperative group structure. Students from Group B had mixed opinions, but expressed more favorable comments toward the control treatment than Group A. The following section discusses these findings further.

Discussion

Factors which may have contributed to the results are identified and interpretations of findings in regard to current research are dealt with in this section. Both academic and social outcomes will be discussed.

Academic Outcomes

Current research has indicated that a cooperative group structure promotes higher academic achievement. Several of the findings support this conclusion. This held true for identification of vocabulary words. It is the author's belief that the positive interdependence,

interdependence, individual accountability, and the use of group rewards contributed to positive results. The students were motivated to help members of their group succeed during individual testing. Some students devised methods to help members retain difficult words. These methods were usually understandable to the student(s) experiencing difficulty and effective in accomplishing the desired goal.

Higher achievement in the area of comprehension of students working in the cooperative situation as compared to the independent one was not clearly evident. According to research, student-to-student interaction allows for the verbalization of ideas, thus leading to greater understanding. Comprehension improves as the verbalization of ideas increases. Realizing that the assessment of comprehension involves factors that are difficult to measure, variables such as the types of measures used, the setting, and social aspects may have had a role in the lack of congruent findings.

The types of measures implemented must be reviewed. The identification of main ideas is a complex skill and several students experienced difficulty in distinguishing the difference between key ideas and supporting details. Further direct instruction and guided practice may have remediated the problem but was not possible due to time constraints. Some students lacked skill in the ability to retell. Once again, increased modeling and practice may have assisted in developing competency. It is the author's feeling that information gleaned from the comprehension evaluation would have appeared more

accurate if a comparison could have been made from a second evaluation at the conclusion of the study.

The setting in which this study was conducted may have affected results. The lack of a true heterogeneous structure possibly had a major effect on the results. Even though the attempt was made to form heterogeneous dyads, the subjects used were receiving supplementary assistance due to their low achievement in the area of reading. Therefore, the nature of the setting was also limiting in the amount of instructional time students received. Students actually had less than a 30-minute block of time because of arrival and departure procedures. Activities had to be divided into smaller segments. For example, the reading of one chapter usually took several days and sometimes students had difficulty in retaining information from 1 day to the next. Unfortunately, on several occasions students were dismissed from Chapter 1 due to special classroom activities, therefore interrupting a pattern of tasks.

Social aspects appeared to have an influence on findings. In making generalizations, it is interesting to note that Group A's performance was improved within a cooperative group structure, whereas Group B demonstrated preference for a traditional-type setting. It is the researcher's belief that social problems evident in Group B were barriers to their learning. Johnson et al. (1986) stated that knowledge and skills are useless if students cannot apply them in a cooperative manner when interacting with others. Several personality conflicts existed among members of Group B prior to this study and

they appeared undeveloped in the use of social skills in comparison to Group A. The findings from this study stress the vital importance of building a foundation of cooperative skills if academic improvement is to occur.

The literature indicated that student-to-student interaction is a powerful element and contributes to higher achievement. The observations from this study supported current research as student interaction facilitated the use of strategies and allowed students to actively participate in summarization and elaboration. The use of an approach involving questioning and predicting was also facilitated by a cooperative group structure. It is difficult to dissect facets of student-to-student interaction in determining which factors brought about positive experiences; however, some valuable observations were noted in the areas of allocation of time and interaction patterns. Within the cooperative group structure, each student was given increased opportunity to read and actively participate in activities that followed. Students were given more time to learn due to a decrease in management of behavior. On-task behavior was clearly evident within a cooperative group structure. Interruptions diminished as student "call outs" were lessened. Overall, the environment was conducive to learning and similar in many respects to that which is experienced by students in the high-ability reading group.

Social Outcomes

Research notes that social aspects are cultivated through a cooperative group structure. Even though sufficient time was not allowed to build a foundation of social competencies, the findings of this study support current research as the development of social skills was observed. Students experienced success and failure in dealing with conflict and in making decisions. Yet, the author would hesitate to label an experience as one resulting in failure. Group processing allowed "failing" situations to become a learning experience through determining what behaviors needed to be altered and which should remain to solve the problem. The evidence of helping behaviors and affirmative comments were definitely positive outcomes.

Opportunities for success were allowed in a cooperative group structure. All students experienced success in some form during the course of the study. A competitive spirit was nonexistent during collaboration. Most importantly learning was enjoyable for the majority of students within a cooperative group structure.

Implications

There is increasing evidence from numerous studies that promotes the positive academic and social outcomes from cooperative learning. Taking into consideration the serious drawbacks from homogeneous ability grouping, it is the author's recommendation that a cooperative group structure be implemented to some degree during reading instruction in Chapter 1 as well as the regular classroom. The heterogeneous nature of cooperative learning offers an environment

conducive to learning, especially for the low-achieving student. In reference to a statement made by Allington (1983), the potential for improvement among poor readers is unlikely unless the instructional environment is altered to resemble that of good readers. From the review of literature and findings concluded in this study, it is the researcher's belief that a cooperative group structure can provide such an environment.

The author feels that the implementation of cooperative learning would facilitate the use of an in-class model where Chapter 1 students remain in the regular classroom and the Chapter 1 teacher comes to their room. As Chapter 1 students are involved in heterogeneous groupings, the Chapter 1 instructor can focus on Chapter 1 students, providing necessary feedback and assistance. It seems that this may eliminate some of the problems resulting from a lack of congruency due to separation between the Chapter 1 and classroom teachers. Care must be taken in complying with state regulations (i.e., that Chapter 1 instructors can work only with students who are identified as being eligible to receive supplementary assistance. It is important to receive approval from the state before implementing such a model.

The usage of cooperative group structures could easily be incorporated into a classroom designed with a whole language focus. This researcher especially views cooperative learning as being conducive to naturalistic assessment. A cooperative group structure allows the teacher increased time for effective monitoring. The interaction between students gives valuable information concerning

their strengths and weaknesses. This information also helps in determining what should be taught in regard to student needs.

Involvement in a cooperative group structure can assist in diminishing the passive behavior demonstrated by poor readers. As readers are actively involved in assuming responsibilities, they become motivated to learn and view learning as fun.

Cooperative learning should be implemented in a gradual manner within the Chapter 1 and regular classroom. It is important to lay a foundation by defining and practicing specific social skills as this is crucial to the success of a cooperative experience. It takes a great deal of repetitive practice and processing to develop one skill before students are ready to handle another social skill. The author would also suggest starting simply. Structuring students in dyads during oral reading is easy to organize and effective. The formation of support groups among colleagues is also essential especially when implementing something new.

Further research in the area of cooperative learning and reading is needed. Particular attention needs to be given to effects on the low-achieving student. It would be interesting to replicate this study, examining the effects of a cooperative group structure on low-achieving students in a truly heterogeneous classroom.

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APPENDIX A

Story Retelling:

Overall Organization Rating Sheet

- RATE 3: Events that accurately represent the author's events
Events that are told according to the author's sequence
A beginning that matches the author's
A well-defined story problem that matches the author's
A conclusion that wraps up the story according to the original
No irrelevant details
- RATE 2: Some story events that change the author's events
Some events that are told out of order
A beginning and conclusion that roughly match the author's
Action that rambles without clearly defining the author's central problem
Few irrelevant details
- RATE 1: Many events that do not appear in the author's story
Few events recalled
A beginning and/or ending that differs from the author's
Omission of the author's central story problem
Many irrelevant details
- RATE 0: No main idea or point to the story
Practically no events recalled
An overall impression of disorder because of jumbled arrangement of ideas
No beginning, middle, or end
Many irrelevant details

APPENDIX B

Cooperative Learning Evaluation

1. Did you like reading with a partner?

Yes No Sometimes

2. Did you like taking turns reading in a group?

Yes No Sometimes

3. I would rather:

read with a partner

or

read in a group

4. I liked doing my work with a partner? (cloze passages and main idea statements)

Yes No Sometimes

5. I liked doing my work by myself?

Yes No Sometimes

6. I would rather:

do my work with a partner

or

do my work by myself

7. Did you and your partner work well together?

Yes No Sometimes

8. What was the best thing about working with a partner?

9. What was something you disliked when working with a partner?

10. Is learning easier when working with a partner?

Yes No Sometimes

11. Is learning easier when working by yourself?

Yes

No

Sometimes

12. I can learn best when:

working with a partner

or

working by myself

13. Additional comments: