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A study of cooperative learning strategies used in the elementary classroom

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A STUDY OF
COOPERATIVE LEARNING STRATEGIES
USED IN THE ELEMENTARY CLASSROOM

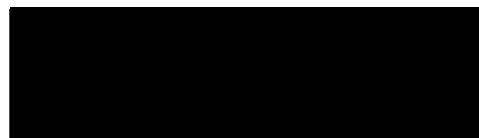
MASTER'S THESIS

Submitted to the Department of Teacher Education,
University of Dayton, in Partial Fulfillment
of the Requirements for the Degree
Master of Science in Education

by

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April 15, 1997

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DEDICATION

I would like to thank my husband and parents for their continuous support throughout my educational career as well as their encouragement during my master's studies and research.

CHAPTER I

INTRODUCTION

Purpose for the Study

As the students sitting in straight rows diligently took notes, the teacher stood in the front of the classroom and presented information in a lecture format. Students were prohibited from talking while listening was stressed. Teaching styles were characterized by competition and individualistic learning. Teacher centered classrooms where students were passive individual learners were predominant. The use of the lecture format where students were encouraged to work alone, listen, memorize, and regurgitate information on a test was the mainstay of teaching strategies. This was the traditional approach to teaching students and remained in vogue for many years.

A teaching strategy that has become prominent in today's schools is cooperative learning. Although the idea of cooperation in learning is not new, it has only been recently that teachers have begun to utilize cooperative learning strategies in their classrooms. In the last twenty years, studies have supported the use of cooperative learning. Cooperative learning is a set of teaching strategies "which employs small teams of pupils to promote peer interaction and cooperation for studying academic subjects" (Sharan, 1980, p.242). Research consistently indicates that the use of cooperative learning strategies promotes positive cognitive and social skills (Dishon & O'Leary, 1984; Foyle, Lyman, & Thies, 1991; Kagan, 1992). Specifically some benefits are enumerated as higher academic

achievement; increased self-esteem; greater interpersonal skills; higher level reasoning and thinking abilities; greater respect for individual differences; greater academic motivation; and an increased ability for developing on- task behavior and self-direction (Dishon & O'Leary, 1984; Johnson & Johnson, 1981, Kagan, 1992, Sharan, 1990; Slavin, 1995).

Cooperation is a concept that is important to educators. As a result of social changes over the last several decades, people are living and working closer together. Learning interpersonal skills and the ability to get along with one another has become an important educational goal taken on by schools. The concern with learning to cooperate with others has grown out of two historical philosophies. One is from the philosophy of Dewey (1957) who saw the importance of the social aspects of learning and the role schools have in teaching students in a democratic society. He felt that children needed to experience cooperation in their school setting in order to learn the social and interpersonal skills necessary for a successful life. He felt schools should teach children how to empathize and respect others as well as how to work with others to solve common problems. The other comes from the philosophy of Lewin and other scholars of group dynamics who advocated "action research". Both Dewey and Lewin were concerned with improving social interaction and cooperation in schools (Lippitt, 1947).

Although the research on the effects of cooperative learning are plentiful, the author found little research that describes the specific cooperative learning strategies that

tend to be used most in elementary schools and the frequency with which they are being used. It is beneficial to know the specific strategies elementary teachers use so that these educators can be provided with additional strategy choices as well as possible variations of strategies that they use most frequently. This should increase their knowledge base and help them provide variety and creativity in their lesson planning. This was one of the purposes for doing this study.

Another purpose for doing this study was to determine characteristics of both the schools and teachers who tend to either utilize or not utilize cooperative learning strategies. This information is useful in understanding why these strategies are being used by certain groups of teachers and schools and not by others. It also adds to the general knowledge that educators have about the use of cooperative learning in elementary schools including what grade levels, subject areas, school districts, and teachers tend to use cooperative learning strategies in their classrooms. Third, and most importantly, the purpose for doing this study was to analyze the perceptions elementary teachers have about cooperative learning strategies. Since this information targets both the positive and negative elements of cooperative learning strategies, it should provide reasons teachers decide to either use or not use cooperative learning. Again, this is vital information to the continuing education of elementary teachers in regards to cooperative learning. By expressing their perceptions on cooperative learning, the teachers can use these opinions as a guide for decision making in the planning and organization of cooperative learning

lessons. Workshops can be developed to support their positive perceptions and help them overcome the negative by teaching additional techniques and ideas. It is for these reasons that the author surveyed elementary teachers to analyze their perceptions of cooperative learning, the frequency with which cooperative learning is used in elementary classrooms, and the characteristics of both the teachers and schools that utilize and do not utilize cooperative learning.

Statement of the Problem

The purpose of this study was to analyze the perceptions of elementary teachers toward the use of cooperative learning strategies.

Assumptions

To conduct this study the author used a field tested questionnaire containing a combination of open-ended and forced choice questions. The questionnaire was used to gather demographic data as well as the attitudes and perceptions of elementary teachers toward the use of cooperative learning. It was assumed that the teachers selected to participate in the study honestly answered all of the questions. It was also assumed that the questionnaire had content validity and measured what it was intended to measure (Issac & Michael, 1995). Instrument reliability was also assumed by the author.

Limitations

There were several limitations to this study. Since the author used a stratified nonprobability sample (Best & Kahn, 1989), the ability to generalize was lessened. The sample size of teachers surveyed was also a limitation. Another limitation was that the

subjects all teach in a small geographic area within the state of Ohio. The possibility of the subjects' varied interpretations of the term "cooperative learning" was another limitation.

Definition of Terms

Cooperative Learning is a set of teaching strategies that emphasizes group cooperation and interaction while students work in small heterogeneous learning groups.

Elementary Teachers are teachers that teach kindergarten through sixth grade.

Sociological Stratification is the system which classifies geographical areas into city, suburban, and rural areas.

Suburban Area is a residential area that lies outside a major city.

Inner-City Area is an area that lies directly in a major city.

Rural Area is an area that is mainly farmland and lies outside a major city.

Higher Level Thinking Skills are skills that would include problem solving, analyzing, synthesizing, inferring, and discovering.

Perception is defined as the teachers' positive or negative feelings toward a given topic.

CHAPTER II

REVIEW OF THE RELATED LITERATURE

In this chapter the author reviewed related literature on the topic of cooperative learning. The chapter is divided into three sections. In the first section, the author discussed specific cooperative learning strategies. In the second section the author reviewed the advantages and disadvantages of using cooperative learning in the classroom. In the last section the author presented the role of teachers in the implementation of cooperative learning.

Cooperative Learning Strategies

One of the oldest and most extensively developed cooperative learning strategies is Student Teams- Achievement Division (STAD) (Slavin, 1978, 1986, 1988, 1990, 1995). Students are placed in heterogeneous teams of four to five members. The function of the team is to prepare all of its members for individual quizzes on material the teacher has presented in class. Usually this consists of members quizzing one another, working problems together, and correcting each other's misconceptions. Individual quizzes are given to ensure that each student member knows the material. Students also receive individual improvement scores determined by comparing their quiz score with their usual level of performance. Teams are rewarded for helping one another since teams receive recognition by competing for the highest sum of individual improvement scores of each member.

STAD can be used from primary education through college. According to Slavin (1986) this cooperative learning strategy works best with subject areas where convergent answers are common. These areas include mathematics, grammar, language usage, geography, and map skills.

Another well developed cooperative learning team strategy is Teams- Games- Tournaments (TGT) (Edwards & De Vries, 1972; Slavin, 1978, 1986, 1990, 1995). TGT is similar to the previous strategy, STAD. After students work in their heterogeneous groups to master material by helping one another, they play academic games representing their team. Games take the place of quizzes. Also, individual improvement scores are replaced with a "bumping system" that keeps competition fair and gives all students equal opportunities for success (Slavin, 1995). TGT is best suited to basic skill instruction and is preferred by some teachers because of the fun nature of the activity (Slavin, 1995).

Jigsaw (Aronson, Blaney, Stephan, Sikes, & Snapp, 1978) and Jigsaw II (Slavin, 1986) are cooperative learning strategies that can be used to emphasize concept relationships. The Jigsaw models were developed to utilize material in the core content areas such as social studies, literature, and science where the goal is learning concepts, not skills (Aronson, et. al., 1978; Slavin, 1986). Again, students work in heterogeneous teams as in STAD and TGT. Individual team members are assigned a subtopic of a major topic and are to become "experts" on that subtopic. Each member meets with other students that were assigned the same subtopic. They discuss their findings with one another, correct each others' misconceptions, and come to a common knowledge base on the

assigned subtopic. The members then return to their original groups and each team member teaches "his/her" subtopic to his/her entire team.

Group Investigation is another cooperative learning strategy that is an interest based study of a specific topic (Sharan, Hertz-Lazarowitz, & Ackerman, 1980; Sharan, Kussell, Hertz-Lazarowitz, Bejarano, Raviv, & Sharan, 1984; Sharan & Sharan, 1976). It is one of the most complex strategies and differs from STAD, TGT, and the Jigsaw methods in that it provides students with broad, diverse learning rather than with the acquisition of basic facts and skills (Sharan & Sharan, 1992). It also allows students choices and gives them the responsibility to carry out the project as they see fit. The team chooses a topic from a unit being studied in class. The group assigns individual members different tasks as they gather information, analyze data, and come to conclusions. The project ends with a report or presentation to the entire class. This strategy is very effective in increasing students' higher level cognitive abilities (Kagan, 1992).

Another type of cooperative learning strategy is called Structured Dyadic Methods and involves a pair of students who work together on a specific study procedure (Dansereau, 1988; Greenwood, Delquadri, & Hall, 1989). Pair learning has been used over longer periods of time in classrooms than has cooperative learning and differs from most cooperative strategies in that only two students work together to teach each other (Slavin, 1995).

One specific dyadic method is called Classwide Peer Tutoring (Greenwood, et. al., 1989). This strategy involves tutors presenting problems in specific areas of study to their

tutees. A correct answer by the tutee earns points; a wrong answer requires the tutee to correct his/her answer. Every ten to fifteen minutes the tutor and tutee switch roles.

Recognition is given to the pair with the most points. Reciprocal Peer Tutoring (Fantuzzo, King, & Heller, 1992) is a similar dyadic method. Tutor and tutee alternate roles, but the tutor gives alternate problems if the tutee makes errors. This method can be used in all subject areas and at various grade levels.

Structured or Cooperative Controversy is a cooperative strategy that uses conflict and debate as a means for increasing learning (Johnson, Johnson, & Holubec, 1990).

Students are placed in heterogeneous teams of four members. Each team is assigned a controversial ethical or moral issue. Two members are assigned to one side of the issue while the other two members are assigned the other side of the issue. After the pair researches the topic, they debate the issue. Then the two pairs switch sides and argue the opposite point of view. This activity allows students to explore issues from different perspectives while broadening their perceptions of ethical and moral issues facing society. This strategy can be used in subject areas such as science, social studies, literature, and health.

Another small group cooperative learning strategy that requires each team to investigate a subtopic as part of a whole class investigation is called Co-op Co-op (Kagan, 1992, 1995). Similar to that of other strategies, Co-op Co-op involves heterogeneous teams working together to further their understanding of a topic. It differs from many of the other strategies where students cooperate to earn more points as a team

than do the other teams. In Co-Op Co-Op teams do not compete with other teams for points, but students learn to satisfy their own curiosity and share with peers what they have learned. Co-op Co-op learning is not focused on predetermined teacher goals, but it is a process that grows from students' interests. It is truly a student centered and student run strategy where cooperation and learning are the primary goals. Peer evaluation is a part of this strategy as is a democratic spirit where students determine what to study, how to study, and how to evaluate themselves. The teacher serves as facilitator and coach (Kagan, 1992).

In the preceding paragraphs, the author discussed several specific cooperative strategies that are used by educators. In the following paragraphs, the author presents the advantages and disadvantages of using cooperative learning strategies.

Advantages and Disadvantages of Using Cooperative Learning Strategies

Advantages. Hundreds of research studies have supported the fact that the use of cooperative learning strategies is advantageous. One of the advantages is the positive effect it has on students' academic achievement (Johnson & Johnson 1981; Kagan, 1992; Sharan, 1990; Slavin, 1983, 1990, 1995). Studies have repeatedly demonstrated that cooperative learning promotes higher achievement gains than those of competitive and individualistic learning modes. This academic success is demonstrated across all grade levels and subject areas. According to Kagan (1992) high, average, and low achievers gain equally from cooperative learning experiences. The saying "five heads are better than one" is certainly valid when applied to cooperative learning. Students share knowledge,

creativity, and ideas with one another. Members learn from each other as they explain concepts to one another, thus adding to each other's knowledge base. This results in higher academic achievement for all (Slavin, 1995).

Another advantage of using cooperative learning is the enhancement of students' self esteem (Kagan, 1992; Novelli, 1993; Slavin, 1990, 1995). Two of the most important components of a student's self esteem are the feeling of academic success and the feeling of being well liked by his/her classmates. When students are placed in cooperative learning groups, they are assigned specific roles. Each role is of equal importance in the completion of the desired task. When each member's role is a key component to the group's success, each member feels as though he/ she is an important person and extremely valuable. Overall, cooperative learning groups improve peer relations and academic achievement, both concepts being linked to one's positive self esteem.

The positive effect on students' social, interpersonal, and small group skill mastery is another advantage of using cooperative learning in classroom teaching (Foyle et.al., 1991; Johnson & Johnson, 1989-90; Sharan & Sharan, 1987). Cooperative learning is based on the interaction and shared responsibility among group members unlike whole class instruction where students are isolated from one another and learn alone. Cooperative learning is a necessary strategy in today's schools in order to prepare students for the working world. When students work together, they experience and practice a variety of social skills. Students learn how to listen, share, exchange roles, debate, and

help one another. They learn to be contributing citizens and that it takes the cooperation of each individual member to make a team successful. These are essential skills in preparation for every student's future (Lasley & Matczynski, 1997).

Another advantage of using cooperative learning strategies in the classroom is the positive effect it has on the students' ability to interact with students of different backgrounds and abilities (Barbour, 1990; Dishon & O'Leary, 1984; Manning & Lucking, 1990; Slavin, 1990). When students are placed in heterogeneous groups, they are grouped with other students who may have different ethnic, racial, and social backgrounds from their own. This allows students to make new friendship choices outside their own racial, ethnic, and social groups. When individual team members make substantial contributions to a desired goal, they learn to like and respect one another. They learn to relate with others and to accept and value individual differences. Studies have shown that the consistent use of cooperative learning helps students learn to help one another and care for one another regardless of their race, ethnicity, or social background (Dishon & O'Leary, 1984).

The fact that cooperative learning promotes higher level thinking skills is another advantage in the use of these strategies (Johnson & Johnson, 1989-90; Kagan, 1992; Sharan, 1990). All of the cooperative learning strategies that are used in classrooms today encourage the use of higher level thinking skills among students. The students collaboratively are evaluating, discovering, debating, problem solving, and hypothesizing.

No longer is copying and memorizing information given by the teacher adequate; students are forced to become involved intellectually with the content.

Other advantages in using cooperative learning are the increased on-task behavior time and the greater achievement motivation of students (Dishon & O'Leary, 1984; Kagan, 1992, Mulryan, 1995, Slavin, 1995). Cooperative learning makes schoolwork interactive and exciting. The game-like nature of the activities and interaction of students with their peers keep students actively engaged with their own learning. The students tend to be motivated by their peers to reach their desired team goal. The peer interaction involved in cooperative learning results in on-task behavior and directs students toward the academic goal. The students realize that being motivated and displaying on-task behavior will repeatedly result in higher rewards for their team. Cooperative learning allows students to make choices and decisions individually and as team members. This motivates all students to take an active role in their group and become involved in the learning process. Passivity is impossible. (Slavin, Leavy, & Madden, 1984).

As is true in all learning strategies, cooperative learning is not problem- free (Lasley & Matczynski, 1997). Although cooperative learning has many advantages, it also has a few disadvantages that need to be discussed if teachers are to make informed decisions regarding the use of these strategies.

Disadvantages. One disadvantage of cooperative learning is that if the lessons are not planned correctly it can allow for the "free rider" effect in which some members do all the work while the others do none and take a "free ride" (Lasley & Matczynski, 1997;

Slavin, 1995). This usually occurs when the group is given a single task such as completing a worksheet or the task of producing one project. The "free rider" effect can be avoided if each group member is assigned a specific role or duty such as in Jigsaw or Group Investigation. This effect can also be avoided if the teams are rewarded based on the sum of the individual's performance and test scores or quizzes. This allows each member to be accountable for his/her own learning which results in the desired goal for the entire team. Peer evaluation is yet another way to reward those students who contribute and allow students input on the grade of those that take a "free-ride."

Another possible disadvantage of cooperative learning is that the talking involved with these strategies can be distracting to some teachers and students (Kagan, 1992; Sharan & Sharan, 1992). Studies indicated that some traditional teachers felt as though the talking distracted students from learning. In contrast, some teachers believed that the talking that was involved in cooperative learning was valuable in the learning process and necessary to assure student involvement.

Teachers are not the only ones who hold opposing views on the topic of cooperative learning. According to Sharan & Sharan (1992) studies indicated that some students did not like talking and learning with their classmates. They did not feel comfortable giving suggestions or ideas in teams because they feared being "wrong." They felt very hesitant and insecure in the cooperative learning group situations and preferred working alone or learning from the expert teacher and not their peers.

Another possible disadvantage of cooperative learning is the task of giving individual grades (Johnson, et. al., 1990; Kagan, 1992). It is often hard to determine who does what in group projects and deciding how to grade students. Is it fair to give everyone the same grade if everyone does not do equal work? Teachers struggle with this, and it is certainly one of the most troublesome aspects of using cooperative learning strategies. Using a combination of individual and group grading as well as giving students a voice by employing peer evaluations is one way to account for individual differences in the quality and quantity of work done.

Another possible disadvantage of cooperative learning is some teachers' beliefs that they have lost control of the students' learning process (Lasley & Matczynski, 1997). In many classrooms today, it is the teacher who is the primary learner. He /She decides what to teach and how to teach it. This places the intellectual burden on the teacher, not the students. Many teachers feel they are in "control" of the students' learning and feel threatened and uncomfortable giving the students the opportunity to be in control of their own learning as is the case in many cooperative strategies. The actuality is that these teachers are not really in control anyway. The fact that they design the learning environment gives them a false sense of being in control (Lasley & Matczynski, 1997). Teachers can not make students think and learn. The teacher can only design the learning environment; he/she can not make a student think and learn. Students learn best when they are challenged, feel comfortable with themselves and others, and enjoy what they are

studying and how they are studying it. Cooperative learning meets those criteria, hence it promotes learning.

In the preceding paragraphs the author reviewed advantages and disadvantages of using cooperative learning strategies. In the following paragraphs, the author discusses the role of teachers in the implementation of cooperative learning strategies.

The Role of Teachers in the Implementation of Cooperative Learning

The first role of the teacher in implementing cooperative learning is the forming of heterogeneous learning groups of four to five students (Dishon & O'Leary, 1984; Johnson & Johnson, 1989-90; Kagan, 1992; Slavin, 1995; Vermette, 1995). Although teachers may randomly assign students to groups or allow students to select their own groups, this often results in excessive socializing, off-task behavior, and groups that contain students of similar ability levels. A more productive group results when students are grouped heterogeneously by the teacher according to achievement, sex, race, ethnic background, socioeconomic status, and any other traits or factors important to the teacher. Heterogeneous grouping produces a wider variety of opinions, ideas, and solutions.

Another important teacher role in the implementation strategy is to carefully plan and design the specific lesson with clear objectives and instructions (Dishon & O'Leary, 1984; Kagan, 1992; Sharan & Sharan, 1992; Vermette, 1995). Before teams can function efficiently, they must know the goals for the team interaction. The teacher should clarify what is to be done and that the task is to be completed cooperatively. The teacher should divide the task into small sequential steps in order to allow enough time for task

completion but not excessive time that would encourage group socialization after task completion. All team members should be aware of the desired outcome of the lesson they are processing.

In implementing cooperative learning the teacher must make the transition from the traditional teacher role to one of facilitating and monitoring learning (Dishon & O'Leary, 1984; Kagan, 1992; Slavin, 1995; Vermette, 1995). The role of the teacher in cooperative learning is one of facilitator and coach. The teacher no longer functions as the expert possessor of knowledge but allows students to discover knowledge through their own interactions. The teacher monitors and interacts with learning teams to evaluate team dynamics and progress throughout the lesson. This role transition is not an easy one for many teachers who equate learning with the traditional lecture teaching strategy. One way of overcoming the discomfort of this role transition is to add cooperative learning strategies slowly. For example, using one strategy per week to start with while gradually increasing the frequency as the teacher's comfort zone with the strategy improves (Slavin, 1995).

Another way to overcome this role discomfort is for the teacher to use the strategies initially for lessons and content that he/she is comfortable with, not with new concepts or content. This way the teacher only has to deal with the newness of the strategy not the material as well. Sharing successes and failures with colleagues also helps teachers become more comfortable in the role of implementing cooperative learning strategies.

The teacher's role of promoting positive interdependence as well as individual accountability is necessary for effectively implementing cooperative learning (Brandt, 1987; Dishon & O' Leary, 1984; Johnson & Johnson, 1989-90; Jules, 1990; Kagan, 1992; Slavin, 1995; Vermette, 1995). Since not all students want to work with others or know the proper way to do so, the teacher must model this behavior as well as create reasons for the students to work together by controlling the distribution or amount of resources, structuring forms of accountability, and/or offering rewards.

One way the teacher can create positive interdependence among team members is to limit the resources and require student teams to share them. For example, giving groups only one pencil and one paper for the entire team or giving each team member part of the necessary materials the team needs to process the task should encourage them to work together and be dependent on one another (Dishon & O'Leary, 1984).

Individual accountability refers to the evaluation of the team product. Another part of the teacher's role is to let the students know, prior to processing the task, how they will be held accountable. For example, will a student be randomly selected to share the team's work or will individual quizzes be given and the scores combined and averaged for a group grade? Individual accountability ensures that all students are involved in the team's progress and product, lessening the chance of the "free-rider effect" (Slavin, 1995). Each member is held accountable for the success of the entire team.

Prior to implementing cooperative learning, the teacher must explain and model appropriate interpersonal and small group social skills so that students can be successful in

their group interactions (Johnson & Johnson, 1989-90; Sharan & Sharan, 1992). Some students lack the necessary social skills that are fundamental to the cooperative learning process. Students need to be shown how to interact appropriately in group settings. Before implementing cooperative learning, the teacher must model, discuss, and allow students to role play proper social skills. Skills such as listening, encouraging others, accepting individual differences, compromising, and disagreeing without stifling creativity are necessary interpersonal skills to the successful implementation of cooperative strategies.

In summary, cooperative learning is an excellent teaching strategy to help students learn how to work together, respect each other's differences, and practice higher level thinking skills; although it should not function as the sole strategy teachers use, as students also need to be able to function individually. Effective teachers will use a combination of teaching strategies so that students learn a variety of skills necessary for living and working effectively in our society. In order to use cooperative learning to its best advantage teachers need time to practice using this model and support to assist them when they face problems or discomforts inherent in all teaching strategies.

CHAPTER III

PROCEDURE

Subjects

The subjects selected for this study were certified kindergarten through sixth grade classroom teachers that represented five public school districts and eleven elementary schools in southwestern Ohio. The sample consisted of 130 kindergarten through sixth grade teachers. Ninety-two percent were females while 8% were males. The vast majority (96%) were Caucasian while 3% were African American and 1% Native American. Approximately one-third of the respondents (33%) were between the ages of 40-49, 29% were between the ages of 20-29, 21% were between the ages of 50-59, 15% were between the ages of 30-39, while only 2% were 60 or older. Approximately one-half (52%) held a Bachelor's degree, 48% a Master's degree, and only 1% a Doctorate. Nearly one-third (32%) of the respondents had been teaching between 1-5 years, 18% 6-10 years, 15% 26 years or more, 15% 21-25 years, 13% 16-20 years, and only 8% 11-15 years. All grade levels (kindergarten through sixth grade) were represented. Second grade teachers made up 19% of the sample, both kindergarten and first grade teachers represented 15% of the sample, third and fourth grade teachers represented 12% of the sample, while fifth and sixth grade teachers represented 11% of the sample. Six teachers taught combination classes, 2% taught fifth-sixth combinations, while 1% taught a kindergarten-second, first-second, and third-fourth combination.

District 1. Twenty- eight subjects completed the instrument from schools A and

B. The results of the survey showed that 93% of the teachers were female and 7% were male. All subjects (100%) were Caucasian. Nearly one- half (43%) were between the ages of 20-29, while over one-third, 39% were between the ages of 30-39, 14% were between the ages of 40-49, and only 4% 50-59. These subjects held either a Bachelor's degree (54%) or a Master's degree (46%). There were no subjects with Doctorate degrees. Thirty -six percent of the subjects had been teaching 1-5 years, 18% 6-10 years, and 14% had either 11-15 or 16-20 years of teaching experience. Eleven percent of the subjects had more than 26 years of teaching experience and 7% had 11-15 years of experience. All grade levels (kindergarten through sixth grade) were represented in the sample. Second and fourth grade teachers made up 21% each of the sample. Kindergarten, fifth and sixth grade teachers each comprised 14% of the sample, while third grade teachers represented 11%, and first grade teachers 4%.

District 2. The sample from schools C, D, and E consisted of 20 subjects, 95% female and 5% male. Ninety -five percent were Caucasian and 5% African American. Two-fifths (40%) of the subjects were between the ages of 20-29, nearly one-third (30%) 30-39, 15% were 40-49, 10% 50-59, and only 5% was 60 or over. All respondents held either a Bachelor's (55%) or a Master's degree (45%). The vast majority of the respondents had no more than 10 years of teaching experience with 35% having between 1-5 years and 25% between 6-10 years experience. Fifteen percent of the teachers had taught 11-15 years while another 15% had taught over 25 years. Only 5% had 16-20 years

years and 21-25 years respectively. Subjects represented grades kindergarten through fourth. Thirty-five percent of the sample taught first grade, 20% taught second grade, and 15% each taught kindergarten, third, and fourth grades.

District 3. Thirty -three subjects from schools F and G participated in the study. Ninety- four percent were female and 6% were male. The ethnic background of these subjects was predominately Caucasian (91%) while 9% were of the African American race. Over one-third of the subjects (39%) were between the ages of 40-49, 27% were 20-29 years of age, 21% were between 30-39, 9% were 50-59, and only 3% 60 or over. The subjects held either Bachelor's degrees (52%) , Master's degrees (45%), or Doctorate degrees (3%) . Again the majority of the subjects had 10 years or less teaching experience with 39% having taught 1-5 years and 18% 6-10 years. Another 12% each had taught either 16-20 years or more than 25 years, while 9% each had taught either 11-15 years or 21-25 years. Grades kindergarten through sixth were represented in the sample. Twenty-one percent of the subjects taught sixth grade, 18% each kindergarten and first grades, 15% taught second grade. Third and fourth grade teachers comprised 9% each of the sample while fifth grade teachers comprised 6%. Three percent taught a combination kindergarten-second grade class.

District 4. One-hundred percent of the subjects from schools H and I were Caucasian females. Twenty-nine percent of the sample were between the ages of 30-39. The subjects were equally spread among the other three age brackets. Twenty-four percent were between the ages of 20-29, another 24% were 40-49, and still another 24%

were 50-59 years of age. Fifty-nine percent held Bachelor's degrees and 41% held Master's degrees. Over one-half of the subjects have taught ten years or less with 29% having taught 1-5 years and 24% 6-10 years. An equal number of teachers (18%) taught 16-20 years and over 25 years. Six percent taught 11-15 years or 21-25 years.

Kindergarten through fifth grade teachers were represented, with the most teachers (24%) teaching second grade. Equal numbers of teachers (18%) taught kindergarten, first, and fifth grade. Twelve percent of the subjects taught fourth grade, 6% taught third grade, and 6% taught a first-second grade combination class.

District 5. Thirty-two subjects from schools J and K completed the instrument. Eighty-one percent were female and 19% were male. All subjects (100%) were Caucasian. One-half (50%) of the subjects were between the ages of 40-49, 19% were 50-59, 16% were 30-39, 13% 20-29 years of age, and only 3% was 60 or over. More than one-half (56%) held Master's degrees while 44% had a Bachelor's degree. One-half of the subjects had been teaching more than 20 years with 28% having 21-25 years of teaching experience and 22% having more than 25 years of experience. Approximately one-third of the subjects had taught less than 10 years with 19% having taught 1-5 years and 13% 6-10 years. The rest of the sample were equally divided with 9% each between 11-15 years experience and 16-20 years of experience. All grade levels kindergarten through sixth were represented in this sample. Nineteen percent of the sample taught third grade, 16% of the sample taught second grade and another 16% taught fifth grade. Thirteen percent of the sample taught kindergarten, while an equal number (9%) taught

first, sixth, or a fifth-sixth combination. Six percent taught fourth grade and 3% taught a third -fourth grade combination class.

Setting

The schools in which the subjects teach differ in enrollment, class size, and dominant racial and ethnic backgrounds. The communities in which these schools are located vary in socio-economic status and sociological stratification.

District 1. Schools A and B each have an enrollment of approximately 400 students and employ 21 teachers in School A and 24 in School B. Both schools house grades kindergarten through six. Class sizes are generally 20 and below. The community in which Schools A and B are located is suburban, middle to upper class, and predominantly Caucasian.

District 2. Schools C, D, and E have varying enrollments of 200-250 students and employ a total of 32 teachers in grades kindergarten through four. Class sizes are generally 20 and below. The community in which Schools C, D, and E are located is suburban, middle to upper class, predominantly Caucasian, and approximately one-half representing the Jewish faith.

District 3. Schools F and G have an enrollment of approximately 850-950 students and employ a total of 70 teachers in grades kindergarten through six. Class sizes are generally 30 and below. The community in which Schools F and G are located has both inner-city and suburban areas. It is middle to lower class and over half of the students are African American.

District 4. School H enrolls approximately 200 students and employs 9 teachers, while School I enrolls nearly 600 students and employs 22 teachers. Class sizes are generally 30 and below. The community in which Schools H and I are located is suburban, middle to lower class, predominantly Caucasian, and approximately one-third Appalachian. Both schools house grades kindergarten through fifth.

District 5. Schools J and K enroll approximately 550-600 students each in grades kindergarten through six. They each employ between 22-25 teachers. Class sizes are generally 25 and below. The community in which Schools J and K are located is rural, middle class, and predominantly Caucasian.

Data Collection

Construction of the Data Collecting Instrument. The instrument was constructed by the author using information gathered from reviewing the literature, thus establishing content validity (Issac & Michael, 1995). The instrument was a combination of Likert-type and open-ended questions. (See Appendix D). The author used a four choice Likert scale as opposed to a five choice to prohibit the respondents from choosing a neutral response. The concept of cooperative learning was addressed in the instrument.

The following topics were used in the instrument: demographics, familiarity with cooperative learning, frequency of use in the classroom, teacher perceptions of the strategy, and the rationale for using and not using cooperative learning on a regular basis.

The instrument was reviewed and field tested by several elementary teachers as well as two Miami University professors who have presented nationally and published

extensively on cooperative learning as a teaching strategy. The author revised the instrument based on the results of the review and field testing.

Administration of the Data Collecting Instrument. The instruments were delivered in person to the principal's office of all eleven elementary schools. The respondents were given one week to complete the instrument and return it to an envelope in the office. The author picked up the instruments in a sealed envelope to assure anonymity of the respondents. Two hundred twenty-five instruments were distributed and 130 were returned and used in the study. A return rate of 58% was reported for the study. The author then analyzed the responses provided by the educators and compiled the results.

CHAPTER IV

RESULTS

Presentation of the Results

The author presents the results of the Likert portion of the instrument in three tables. Each table is labeled to indicate the type of data being analyzed. The tables, one for the total number of teachers' responses (Table I), one for the responses of teachers with less than 15 years of experience (Table II), and one for the responses of teachers with 16 or more years of experience (Table III) include percentages and number of responses for each question asked on the Likert portion of the instrument. These percentages, which have been rounded, were placed under the appropriate response categories. These tables are located starting on page 46.

All Respondents Variable. Table 1 represents the total responses to questions 15-29 of the instrument and can be found on page 46. The author chose to eliminate questions 28 and 29 from the analysis as it was obvious from the comments of the respondents that they did not fully understand the logic of the questions. Including these items would misrepresent the intentions of the respondents and the results of the research.

One hundred thirty teachers participated in the study. The N column represents the total number of respondents that answered the question. The column titled SA refers to the percentage of respondents that strongly agreed with the particular statement. The column titled A refers to the percentage of respondents that agreed with the statement, while the column titled D represents the percentage of respondents who disagreed with the

statement. The final column, titled SD, refers to the percentage of respondents who strongly disagreed with the statement.

Years Teaching Variable. Table II and Table III represent the responses to questions 15-29 of the instrument and can be found on pages 47 and 48 of the Appendix.

Table II represents teachers' responses that have taught 15 years or less and Table III includes teachers' responses with 16 or more years of teaching experience. The author once again chose to eliminate questions 28 and 29 from the analysis as it was obvious from the comments of the respondents that they did not fully understand the logic of the questions. Again, including these items would misrepresent the intentions of the respondents and the results of the research.

Seventy- four teachers with 15 or less years experience and fifty-six with 16 or more years of teaching experience participated in the study. The N column represents the total number of respondents who answered the question. The column titled SA refers to the percentage of respondents who strongly agreed with the particular statement. The column titled A refers to the percentage of respondents who agreed with the statement, while the column titled D represents the percentage of respondents who disagreed with the statement. The final column, titled SD, refers to the percentage of respondents who strongly disagreed with the statement.

Discussion of the Results

Two hundred and twenty-five instruments were distributed to eleven elementary schools in five different school districts in southwestern Ohio. One hundred and thirty

instruments were returned for a 58% return rate. All tables were based on this 58% return rate.

Questions 1-6 in the instrument looked at demographic information and is detailed in Chapter III. Question 7 asked about the number of students each teacher taught at one specific time. Sixty-three percent taught between 21-30 students while 35% taught twenty or less, and 2% taught 30 or more students. Question 8 asked about the presence of children with disabilities and the availability of a teacher's aide. Sixty-seven percent stated that their classrooms included children with disabilities; of these only 9% received the help of a teacher's aide. Question 9 asked about their familiarity with the term cooperative learning. Nearly all (97%) stated that they were familiar with cooperative learning. When asked where they learned about cooperative learning, 92% mentioned workshops and seminars, 85% personal experience, 76% books, and 75% college classes. Only 14% stated media and television as a vehicle for learning. It is apparent that teachers learn about cooperative learning from many different sources.

Frequency and Subject Area Usage. In question 11 the author inquired about the frequency with which teachers used cooperative learning. Over one-half (59%) used this teaching strategy 6 or more times per month while only 3% stated they never used it. When asked "What subject(s) do you feel are best taught using cooperative learning strategies", 88% mentioned science, 84% math, 73% reading and language arts, and 68% social studies. This supports the fact that cooperative learning can be used effectively in all subject areas (Kagan, 1992; Slavin, 1995).

Positives and Negatives of Using Cooperative Learning. In question 13 the author asked the reasons for using or not using cooperative learning. This question received both negative and positive responses and was answered by 84% of the respondents. The positives far outweighed the negatives according to the teachers in this study. Eighty percent mentioned the benefit of students learning to cooperate with one another as well as learning the social skills necessary to work together. These benefits are well documented in the research and continue to be necessary skills for students as they prepare for their future (Lasley & Matczynski, 1997). Teachers in the study also mentioned with equal frequency (15%) increased academic achievement, respect for others, increased tolerance, enjoyment of learning, development of problem solving skills, and elevated self-esteem. The previous positive aspects of cooperative learning have been documented in the literature (Dishon & O'Leary, 1984; Johnson & Johnson, 1994; Sharan, 1990; Slavin, 1995). Again, this study supports previous research documenting the benefits of cooperative learning strategies to learning.

Although the negative comments about cooperative learning were few, 14% of the respondents stated unruly or disruptive children made using the strategies ineffective. This was by far the most frequently mentioned negative aspect. Other negatives stated by teachers in this study were the excessive length of time needed to use the strategies, difficulty in individual grading, inability to cover necessary content, and lack of participation of some group members. All of these negatives, except that of disruptive

children, have been documented in the literature review (Kagan, 1992; Lasley & Matczynski, 1997; Sharan & Sharan, 1992).

Specific Cooperative Learning Strategies. When asked what specific cooperative learning strategies the teachers had used this year in their classrooms, 97% stated that they have had children working in pairs to complete assignments or projects in various subject areas. As presented in the literature review, these Structured Dyadic Methods differ from most cooperative learning strategies in that they involve only two students working together. Slavin (1995) stated that these strategies have actually been used over longer periods of time than other cooperative learning strategies, so it is not surprising that this is the most frequently used strategy by the teachers in this study.

Ninety- two percent of the teachers had placed students in heterogeneous groups for teacher directed instruction and assisting one another in mastering basic material. This strategy is called Student Team- Achievement Division (STAD). The author found that 74% of the teachers in the study used STAD in their classrooms for mathematics instruction while 69% used the strategy in language instruction. The teachers in this study used this method most often in language and math instruction. STAD is considered to work best in subject areas where convergent answers are common such as mathematics, grammar, and language usage (Slavin, 1986). The results of this study support the conclusions of Slavin (1986).

Eighty-six percent of the teachers surveyed had placed students in heterogeneous groups for various subject areas. These groups cooperate as a team by playing games to

master academic skills. This strategy is referred to as Teams Games Tournaments (TGT). According to Edwards & Devries (1972) and Slavin (1995), TGT is beneficial when used in basic skill instruction and is preferred by teachers because of its fun nature.

Seventy-three percent of the teachers had used this strategy in mathematics and 61% used it in reading or language arts lessons. Both of these subject areas require extensive basic skill instruction.

Sixty-four percent of the teachers surveyed indicated placing students in heterogeneous groups to investigate specific topics. This strategy is called the Jigsaw method. Jigsaw models were developed to utilize material in the core content areas such as social studies, science, and literature where learning concepts is the goal (Aronson, et. al., 1978). Once again the author's research results agreed with the literature review as 66% of the teachers used this strategy in science and 52% used it with social studies activities. Science and social studies instruction dominated the use of this strategy according to this study.

Only 28% of the teachers in the study stated placing students in heterogeneous groups to debate specific issues. This strategy, called Cooperative Controversy, allows students to explore issues from different perspectives while broadening their perceptions of the moral and ethical issues facing society. Of the 28% that used Cooperative Controversy in their classrooms this year, 59% of them used the strategy with social studies lessons and 51% with science lessons. These subjects seem to lend themselves well to debate issues and seem to be the overwhelming subject area choice for their use.

No kindergarten, first, or second grade teachers in this study reported using this strategy, which suggests this may be a strategy that requires some advanced knowledge and skill and might be more appropriate for upper grades.

Likert Scale Questions. In questions 15-31 respondents were asked to respond according to their agreement or disagreement with each statement. These responses are summarized in Table I on page 46. The author chose to eliminate questions 28 and 29 as the responses indicated that the questions were invalid. Consequently, question 30 on the instrument becomes question 28 in the table and question 31 in the instrument becomes question 29 in the table. Although 130 teachers returned the survey, many skipped questions. Therefore, the percentages quoted in the table are based on the number of respondents that answered the question. The column titled N indicates the total number of responses for each question.

Question 15 (I think cooperative learning increases self esteem.) results showed that nearly all teachers agreed (58%) or strongly agreed (36%) with this statement. It is apparent that the teachers in this study agreed that cooperative learning groups improve peer relations and the feeling of being well liked by classmates. These are two important parts of a person's self esteem (Novelli, 1993).

The author also asked about the benefit of increased academic achievement. Again, the teachers overwhelmingly agreed (56%) or strongly agreed (37%) that cooperative learning increases academic achievement. Studies have repeatedly demonstrated that cooperative learning promotes higher achievement gains than those of

competitive and individualistic learning modes (Johnson & Johnson, 1981; Sharan, 1990).

The next question asked teachers if they felt cooperative learning promoted higher level thinking skills like problem solving. Once again a substantial 95% strongly agreed or agreed with this statement. Teachers agree with the literature review that cooperative learning strategies encourage the use of higher level thinking skills (Kagan, 1992; Sharan, 1990). The use of these strategies requires students to be actively involved and to think critically.

Question 18 which stated, "I think cooperative learning increases students' interpersonal social skills" had an overwhelming 96% agreement or strong agreement with the statement. Cooperative learning is based on the interaction and shared responsibility among group members. This involves students practicing a variety of social skills which helps them learn how to listen, share, and help one another (Foyle et. al., 1991). The teachers in this study seem to agree that cooperative learning promotes the learning of interpersonal skills necessary for students to succeed in the future.

The author also inquired as to whether or not the teachers felt that cooperative learning helped students develop relationships with students of diverse backgrounds. The vast majority of the respondents agreed (48%) or strongly agreed (48%) with this documented benefit. It is obvious that teachers understand that when students in heterogeneous groups are exposed to students with different ethnic, racial, and social backgrounds, they must work together toward common goals. According to Dishon &

O'Leary (1984) students learn to work with one another and accept and value individual differences by working in cooperative groups.

"I think cooperative learning promotes on-task, self-directed behaviors" was statement number 20. Over one-half (58%) agreed with this statement, while 20% strongly agreed, 17% disagreed, and 4% strongly disagreed. Although the majority agreed with this statement, 21% disagreed. This 21% obviously does not feel that the interaction and game-like nature of cooperative learning keeps students actively engaged and on-task (Mulryan, 1995; Slavin, 1995). Perhaps they think the talking and interaction involved in the strategies are more disruptive than helpful for promoting on-task behaviors.

It is apparent that the preceding questions pertained to the advantages of cooperative learning. The results indicated that the teachers in this survey had mostly positive opinions toward the use of cooperative learning in their classrooms as well as the importance of working together. The majority of teachers at all grade levels appeared to be advocates of cooperative learning. The next 7 questions explore the negative aspects of cooperative learning.

The twenty-first question pertained to cooperative learning causing disruption in the classroom. Over three-fourths (79%) of the respondents disagreed or strongly disagreed with this statement. Although distraction is a documented disadvantage of cooperative learning, the majority of teachers in this study did not agree. Evidently, most

of the teachers felt that the talking involved in cooperative learning was valuable to the learning process and necessary to assure student involvement. Most studies indicate that some traditional teachers see talking as a distraction to student learning (Sharan & Sharan, 1992). Perhaps the 20% that agreed with this statement are such teachers.

Question 22 dealt with the teacher losing control of the class while using cooperative learning strategies. Teachers generally disagreed (58%) or strongly disagreed (34%) with this notion, albeit losing control of the students' learning process has been a documented concern among teachers (Lasley & Matczynski, 1997). These teachers may feel threatened and uncomfortable giving students the opportunity to be in control of their own learning as is the case in most cooperative strategies. Apparently, most teachers in this study do not see this as a barrier to using cooperative strategies.

The author also questioned teachers about another possible disadvantage of cooperative learning, that of covering less material than those who do not use cooperative learning. Again, teachers denied this negative aspect as only 8% agreed or strongly agreed with this statement. Seemingly, the teachers in this study feel that the benefits of active involvement and interaction negate the possible problem of covering less material.

Question 24 (I think cooperative learning fails to challenge high achievers.) received mainly negative responses with 56% disagreeing and 37% strongly disagreeing with the statement. According to Kagan (1992) the majority of the respondents are correct. Cooperative learning benefits high achievers as they gain valuable knowledge and deeper understanding when they tutor others. These high achievers also profit in other

ways as they gain leadership skills and self esteem as they participate in cooperative strategies.

The challenge of individual grading is another area the author inquired about. The responses to question 25 were mixed. Approximately equal number of respondents generally agreed and disagreed with this statement. Forty-four percent agreed that giving individual grades was difficult when using cooperative learning while 6% strongly agreed with this notion. Forty-one percent disagreed with this statement and 8% strongly disagreed. The teachers in this study were not in agreement as to whether this was a problem or not. Seven respondents commented on their desire to learn ways to better assess individual learning while another respondent noted that using peer evaluations helped solve this problem for her. It would be interesting to know if others had similar success with peer evaluation or if sharing ways to deal with this problem would ease their frustration and promote the frequency of use of cooperative learning.

Question 26 inquired whether or not teachers think individuality is threatened by the use of cooperative learning. Ninety-five percent of the teachers disagreed or strongly disagreed with the question. The results indicated that teachers felt as though cooperative learning involves the cooperation of each individual member to make a team successful and that each individual brings his/her ideas and knowledge to add to his/her group. These are essential skills in preparation for every student's future (Lasley & Matczynski, 1997). It is evident that the teachers in this study do not perceive individuality being threatened by these strategies.

"I think organizing and planning for cooperative learning takes too much time" was the twenty- seventh question. The results demonstrated that 83% of the teachers disagreed or strongly disagreed with this notion. Of the 17% that agreed, 3 comments were made about the fact that it takes time preparing children to work in groups with one another. Comments were also made about the excessive time it takes to find the "right" group. Children have different personalities and some respondents felt as though they simply could not work together. According to Johnson & Johnson (1989-90) perhaps these 17% of the teachers could model cooperative behavior. They might also create a reward system that would encourage and motivate students to want to work together.

Question 28 examined if the teachers felt as though cooperative learning has a place in elementary classrooms. An astounding 99% of the teachers agreed or strongly agreed with this statement. It is apparent that these teachers see the importance of working and cooperating with others to achieve a common goal. These teachers agree with the research that cooperative learning is an excellent teaching strategy to help students learn how to work together, respect each other's differences, and practice higher level thinking skills.

The last question in the instrument inquired about the teachers' interest in learning more about how to incorporate cooperative learning in their classrooms. Eighty-three percent of the teachers agreed or strongly agreed with this statement. Seven respondents specifically stated wanting to learn more about the assessment aspect of cooperative learning. It is not known why the other 16% did not want to learn more about

cooperative learning. Did the teachers not like teaching with these strategies? Did they feel that they knew enough about it already? Perhaps they feel they have taught long enough to have developed the best teaching strategies for them. This would be interesting and valuable information to have.

Years Teaching Variable. In Tables II and III the author looked individually at teachers with 15 years or less experience and teachers with 16 years or more experience. Generally speaking, the two groups were more similar than different. In looking at questions 15-20, which concentrate on the positive aspects of cooperative learning, the majority of both groups agreed or strongly agreed with the positive statements. However, teachers with 16 years or more of teaching experience were slightly more negative in all five questions. For example, looking at question 20 in both tables, "I think cooperative learning promotes on-task, self-directed behaviors" only 14% of the teachers with 15 years or less experience disagreed or strongly disagreed. Twenty-seven percent of the teachers with 16 or more years experience disagreed or strongly disagreed with the statement.

In questions 21-27, which expound on the negative aspects of cooperative learning, the two groups of teachers again were generally similar in their responses. The majority disagreed or strongly disagreed with the negative aspects of cooperative learning. Nevertheless, the teachers with 16 or more years of teaching experience tended to agree slightly more with the negative statements than did the less experienced teachers. For example, in question 27, which states that organizing and planning for cooperative learning takes too much time, 22% of the more experienced teachers agreed or strongly

agreed while only 9% of the less experienced teachers agreed or strongly agreed. When asked if they would be interested in learning more about incorporating cooperative learning into their classroom teaching (question 29), 27% of the more experienced teachers were not interested while only 7% of the less experienced teachers stated a disinterest. This coincides with the idea that the more experienced teachers, although generally positive about cooperative learning, tend to be slightly more negative than the less experienced teachers.

The results of the study support the findings in the review of literature regarding the positive aspects and benefits of cooperative learning. The one hundred thirty elementary teachers in this study advocate the use of cooperative strategies and recognize the benefits to learning from its use. Although the majority of all teachers have positive feelings about the strategy and use it with some regularity, the more experienced teachers tend to be slightly less positive than the less experienced teachers.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

The purpose of this study was to analyze the perceptions of elementary teachers toward the use of cooperative learning strategies. More specifically, the author wanted to identify the specific strategies the elementary teachers used and determine the characteristics of both the schools and teachers who tend to either utilize or not utilize cooperative learning strategies. Although the research on the effects of cooperative learning are plentiful, little research describes specific cooperative learning strategies, the frequency with which they are being used, and the perceptions of the teachers using or not using the strategies. This study should help add to the knowledge base professionals possess about cooperative learning. The following procedures were completed in order to complete the study.

The author surveyed a total of 225 certified kindergarten through sixth grade classroom teachers representing five public school districts and eleven elementary schools in southwestern Ohio. A 58% return rate was calculated. The sample consisted of 130 teachers, most of whom were female and Caucasian. The instrument consisted of a combination of Likert-type and open-ended questions and addressed the concept of cooperative learning. The instruments were delivered in person to the eleven elementary schools. Teachers had one week to complete the instrument. The author analyzed the data and compiled the results.

The results indicated that most teachers in the survey had positive opinions about the use of cooperative learning in their classrooms and were well aware of the benefits of students working together. There seemed to be no major differences between primary teachers and upper grade teachers, as well as no major differences between teachers who held different academic degrees. The only minor difference noted was that teachers who had 16 years or more teaching experience tended to be slightly more negative in their responses towards cooperative learning than teachers who had 15 years or less teaching experience. In general, the results of this study support the findings in the review of the literature regarding the positive aspects and benefits of cooperative learning.

Conclusions

The author concluded that cooperative learning was and continues to be used in all grade levels and subject areas in the elementary schools surveyed. Teachers acknowledge the benefits noted in previous research such as academic success, positive self esteem, growth in social, interpersonal, and small group skills, higher level thinking skills, and increased motivation to learn.

A small percentage of the teachers surveyed also identified negative aspects. Although the vast majority felt the positives outweighed the negatives, 14% mentioned unruly or disruptive children making the strategies ineffective. This was by far the most frequently mentioned negative aspect. Yet other negatives stated by the teachers include: difficulty in individual grading, excessive length of time needed to use the strategies

resulting in inability to cover necessary content, and lack of participation of some group members.

Recommendations

The author recommends that administration continue to be supportive of teachers using a variety of innovative teaching methods, including cooperative learning. It is obvious that cooperative learning has more advantages than disadvantages. Teachers need to share their successes and failures with one another and help each other become more comfortable experimenting with new cooperative strategies. Workshops and seminars on cooperative learning need to be offered at convenient times so that teachers can attend. These workshops should be interactive and expose teachers to new techniques while helping them perfect old ones. Teachers who develop new effective cooperative strategies need to be encouraged to share their ideas with other teachers through publication and should be rewarded for doing so. Administrators should purchase books and other media on cooperative learning to encourage its use in their schools.

The negative aspects of cooperative learning need to be addressed in workshops, media, books, and teaching journals. Teachers who develop creative ways to grade students individually and teach students the social skills necessary for group work need to share their discoveries with other educators. Handbooks outlining "quick and easy" cooperative strategies can help teachers who feel cooperative strategies are too time consuming. Teachers need help in learning ways to reduce the "free-rider" effect in group learning, as well as ways to promote student responsibility and accountability to

peers. In other words, cooperative learning is an excellent instructional method and should be fostered accordingly. Be it students or teachers, cooperation is a necessary skill for success in all areas of life!

APPENDICES

QUESTIONS	N	SA	A	D	SD
15. I think cooperative learning increases students' self esteem.	127	36	58	5	0
16. I think cooperative learning increases academic achievement.	126	37	56	7	1
17. I think cooperative learning promotes higher level thinking skills such as problem solving.	126	53	42	4	1
18. I think cooperative learning enhances students' interpersonal social skills.	128	67	29	3	1
19. I think cooperative learning helps students develop relationships with students of diverse backgrounds.	126	48	48	3	1
20. I think cooperative learning promotes on-task, self-directed behaviors.	122	20	58	17	4
21. I think cooperative learning causes disruption in the classroom.	123	2	19	58	21
22. I think the teacher loses control of the class when cooperative learning is used.	127	1	7	58	34
23. I think teachers who use cooperative learning cover less material than those who do not use cooperative learning.	127	1	7	60	32
24. I think cooperative learning fails to challenge high achievers.	128	1	6	56	37
25. I think giving students individual grades is difficult when using cooperative learning strategies.	124	6	44	41	8
26. I think individuality is threatened by using cooperative learning.	127	1	5	67	28
27. I think organizing and planning for cooperative learning takes too much time.	127	2	15	66	17
28. I think cooperative learning has a place in elementary classrooms.	125	53	46	1	1
29. I would be interested in learning more about how to incorporate cooperative learning in my classroom teaching.	123	29	54	14	2

Note: Scores are expressed as percents. Percents have been rounded to the nearest number.
N= number of respondents, SA= strongly agree, A= agree, D= disagree, SD= strongly disagree

RESPONSES OF TEACHERS WITH 15 YEARS OR LESS EXPERIENCE

QUESTIONS	N	SA	A	D	SD
15. I think cooperative learning increases students' self esteem.	73	36	58	7	0
16. I think cooperative learning increases academic achievement.	74	39	57	4	0
17. I think cooperative learning promotes higher level thinking skills such as problem solving.	73	53	44	3	0
18. I think cooperative learning enhances students' interpersonal social skills.	73	70	29	1	0
19. I think cooperative learning helps students develop relationships with students of diverse backgrounds.	73	52	47	1	0
20. I think cooperative learning promotes on-task, self-directed behaviors.	70	20	66	13	1
21. I think cooperative learning causes disruption in the classroom.	69	0	13	66	20
22. I think the teacher loses control of the class when cooperative learning is used.	74	0	4	58	38
23. I think teachers who use cooperative learning cover less material than those who do not use cooperative learning.	73	0	4	62	34
24. I think cooperative learning fails to challenge high achievers.	74	0	3	55	42
25. I think giving students individual grades is difficult when using cooperative learning strategies.	68	4	43	40	13
26. I think individuality is threatened by using cooperative learning.	71	0	7	63	30
27. I think organizing and planning for cooperative learning takes too much time.	72	1	8	71	19
28. I think cooperative learning has a place in elementary classrooms.	71	60	41	0	0
29. I would be interested in learning more about how to incorporate cooperative learning in my classroom teaching.	68	37	56	7	0

Note: Scores are expressed as percents. Percents have been rounded to the nearest number.
 N= number of respondents, SA= strongly agree, A= agree, D= disagree, SD= strongly disagree

RESPONSES OF TEACHERS WITH 16 YEARS OR MORE EXPERIENCE

QUESTIONS	N	SA	A	D	SD
15. I think cooperative learning increases students' self esteem.	54	39	56	4	2
16. I think cooperative learning increases academic achievement.	54	37	50	11	2
17. I think cooperative learning promotes higher level thinking skills such as problem solving.	53	51	42	6	2
18. I think cooperative learning enhances students' interpersonal social skills.	56	63	29	7	2
19. I think cooperative learning helps students develop relationships with students of diverse backgrounds.	54	44	48	6	2
20. I think cooperative learning promotes on-task, self-directed behaviors.	53	23	51	21	6
21. I think cooperative learning causes disruption in the classroom.	53	6	25	51	19
22. I think the teacher loses control of the class when cooperative learning is used.	55	2	9	60	29
23. I think teachers who use cooperative learning cover less material than those who do not use cooperative learning.	53	2	13	57	28
24. I think cooperative learning fails to challenge high achievers.	55	4	11	56	29
25. I think giving students individual grades is difficult when using cooperative learning strategies.	56	7	46	43	4
26. I think individuality is threatened by using cooperative learning.	56	2	4	73	21
27. I think organizing and planning for cooperative learning takes too much time.	55	2	20	64	15
28. I think cooperative learning has a place in elementary classrooms.	54	41	56	2	2
29. I would be interested in learning more about how to incorporate cooperative learning in my classroom teaching.	52	23	50	21	6

Note: Scores are expressed as percents. Percents have been rounded to the nearest number.
 N= number of respondents, SA= strongly agree, A= agree, D= disagree, SD= strongly disagree

COOPERATIVE LEARNING SURVEY

Please answer all of the following questions to the best of your ability. There are no right or wrong answers. I am interested in your true perceptions about cooperative learning.

For the purpose of this survey cooperative learning is defined as a set of teaching strategies that emphasizes group cooperation and interaction while students work in small, heterogeneous learning groups.

1. What is your gender? male _____ female _____
2. What is your ethnic background? African American _____ Asian _____
Caucasian _____ Hispanic _____
Native American _____ Other _____
3. What is your age? 20-29 _____ 30-39 _____ 40-49 _____ 50-59 _____ 60+ _____
4. What is the highest degree you hold? Bachelor's _____ Master's _____ Doctorate _____
5. Including this year, how many years have you been teaching?
1-5 _____ 6-10 _____ 11-15 _____ 16-20 _____ 21-25 _____ 26+ _____
6. What grade(s) do you presently teach? _____
7. How many students do you currently teach at one time?
20 or less _____ 21-30 _____ 30+ _____
8. Are there any children with disabilities in your classroom?
yes _____ no _____ If yes, do you have an aide? yes _____ no _____
9. Are you familiar with the term cooperative learning? yes _____ somewhat _____
no _____
10. If yes or somewhat, where did you learn about cooperative learning? Check all that apply.
college classes _____ workshops/ seminars _____ books _____
media/ T.V. _____ experience _____

11. How often do you use cooperative learning in your classroom?

never _____ less than 3 times a month _____ 3-5 times a month _____

6-8 times a month _____ 9-11 times a month _____ 12+ times a month _____

12. What subject(s) do you feel is/are best taught using cooperative learning strategies? Check as many as you feel apply.

Reading/Language Arts _____ Math _____ Science _____

Social Studies _____ Other _____

13. What are your reasons for using or not using cooperative learning?

14. After reading the definition for each learning strategy, please indicate by placing a check in the appropriate column, whether or not you have employed it in your classroom this year. If yes, indicate the subject(s) area(s) in which it was utilized.

<u>COOPERATIVE LEARNING STRATEGY</u>	<u>YES</u>	<u>SUBJECT(S)</u>	<u>NO</u>
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Students are placed in heterogeneous groups for teacher directed instruction and assist one another in mastering basic material.

Students are placed in heterogeneous groups and cooperate as a team playing games to master academic skills.

Students are placed in heterogeneous groups to investigate a specific topic. Each group has a different topic. The students then, as a group, present their findings to the class.

Students work in pairs to complete assignments or projects.

Children are placed in heterogeneous groups to debate specific issues.

For the following statements, please circle your level of agreement/ disagreement .

SA= strongly agree, A= agree, D= disagree, SD= strongly disagree

- | | | | | |
|---|----|---|---|----|
| 15. I think cooperative learning increases students' self esteem. | SA | A | D | SD |
| 16. I think cooperative learning increases academic achievement. | SA | A | D | SD |
| 17. I think cooperative learning promotes higher level thinking skills such as problem solving. | SA | A | D | SD |
| 18. I think cooperative learning enhances students' interpersonal social skills. | SA | A | D | SD |
| 19. I think cooperative learning helps students develop relationships with students of diverse backgrounds. | SA | A | D | SD |
| 20. I think cooperative learning promotes on-task, self-directed behaviors. | SA | A | D | SD |
| 21. I think cooperative learning causes disruption in the classroom. | SA | A | D | SD |
| 22. I think the teacher loses control of the class when cooperative learning is used. | SA | A | D | SD |
| 23. I think teachers who use cooperative learning cover less material than those who do not use cooperative learning. | SA | A | D | SD |
| 24. I think cooperative learning fails to challenge high achievers. | SA | A | D | SD |
| 25. I think giving students individual grades is difficult when using cooperative learning strategies. | SA | A | D | SD |
| 26. I think individuality is threatened by using cooperative learning. | SA | A | D | SD |
| 27. I think organizing and planning for cooperative learning takes too much time. | SA | A | D | SD |

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|--|----|---|---|----|
| 28. I think cooperative learning works best in the upper-elementary grades (4-6). | SA | A | D | SD |
| 29. I think cooperative learning works best in the primary grades (K-3). | SA | A | D | SD |
| 30. I think cooperative learning has a place in elementary classrooms. | SA | A | D | SD |
| 31. I would be interested in learning more about how to incorporate cooperative learning in my teaching. | SA | A | D | SD |

Is there anything else you feel the author should be aware of concerning cooperative learning strategies?

THANK YOU FOR YOUR TIME AND INTEREST IN MY RESEARCH. PLEASE
RETURN YOUR COMPLETED QUESTIONNAIRE TO YOUR SCHOOL'S OFFICE BY
_____. THERE IS AN ENVELOPE PROVIDED FOR
YOUR CONVENIENCE.

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