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A comparison of two methods of teaching reading vocabulary: cooperative learning teams and whole-class traditional instruction

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A COMPARISON OF TWO METHODS
OF TEACHING READING VOCABULARY:
COOPERATIVE LEARNING TEAMS
AND WHOLE-CLASS TRADITIONAL INSTRUCTION

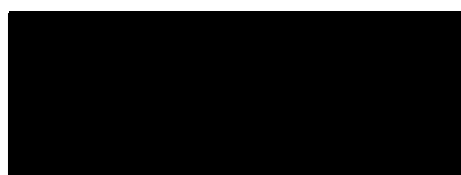
MASTER'S PROJECT

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

by

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TABLE OF CONTENTS

Chapter:

I.	INTRODUCTION.....	1
	Purpose of the Study.....	3
	Hypothesis.....	4
	Definition of Terms.....	5
	Limitations.....	7
	Significance of the Study.....	7
II.	REVIEW OF THE LITERATURE.....	9
	Research on Traditional Learning Methods.....	9
	Research on Cooperative Learning.....	12
	Benefits of Using Cooperative Learning.....	19
III.	METHODOLOGY.....	30
	Subjects and Setting.....	30
	Research Design.....	31
	Instrumentation.....	34
	Data Collection and Analysis.....	35
IV.	RESULTS.....	37
	Findings of Data.....	37
	Discussion of Results.....	40
V.	SUMMARY, CONCLUSIONS, AND IMPLICATIONS FOR PRACTICE.....	43
	Summary.....	43
	Conclusions.....	46
	Implications for Practice.....	47
	APPENDIX A.....	51
	APPENDIX B.....	55
	BIBLIOGRAPHY.....	58

CHAPTER I

INTRODUCTION

Cooperative learning has been used in classrooms for many years.

Teachers have probably had students work in groups on projects or have had one student helping another student since students may understand more easily if it is related to them by a peer. Two of the chief problems with this type of group work has been that one student often ends up doing most of the work or the students working together have trouble staying on task (Slavin, 1987).

Much research in the past fifteen years has been conducted to help teachers alleviate these kinds of problems and to help them realize the many benefits that can be gained through the use of cooperative learning methods. Among the researchers, there has been consensus that in order for cooperative learning to truly succeed there needs to be a combination of group rewards and individual accountability (Slavin, 1983). This is achieved by having each team's score based on the test scores of the individuals within the team. This makes every team member accountable for their learning as well as the other

members of the team.

A prime requisite in the world of work and our society is that citizens be able to interact effectively. Cooperative learning strategies teach interaction. They help people feel connected and a part of a larger scheme of life and work. When people work together for a common goal, they gain in respect and value for one another (Slavin, 1985). Cooperative learning helps develop friendships and fosters tolerance and the importance of diversity in people. It boosts self-esteem in most students.

Many places in today's society, such as schools, businesses, and government agencies expect fluent verbal and written vocabulary skills. Vocabulary proficiency helps writers to compose fluently, communicate clearly, and create a good impression in a variety of written-language situations. Professionals who need to use oral language need to be able to have a wide-range of vocabulary. Poor communication skills and vocabulary are often interpreted by many people as a sign of poor education, or low intelligence.

Today, research indicates that when instruction is combined with cooperative learning methods, higher achievement can be attained (Slavin, 1987). Besides higher achievement there are other benefits from using cooperative

learning methods. Among the most important are an increase in positive intergroup relations, higher self-esteem, increased amount of class time on task, and a positive cooperative attitude among students (Johnson & Johnson, 1988).

Research reports that children profit from working with partners in reading instruction. Grouping students into teams using the methods developed by Johnson and Johnson (1984) and Slavin (1988) for cooperative learning, was the basis of this study.

Purpose of the Study

The purpose of this study was to compare the cooperative learning model, called STAD, of teaching reading vocabulary to a whole-class traditional method in a third grade classroom. During the whole-class traditional approach the students in Group T read the vocabulary word list orally each day. The teacher introduced the vocabulary through the use of sentences from an overhead. Using context clues the students discussed the meanings of the words with the teacher calling on volunteers for this discussion. The vocabulary words were also drawn attention to while reading the story. On other days when the word list was read aloud, the teacher orally quizzed the students on the vocabulary meanings. Again, she called on volunteers.

In contrast, during the cooperative learning team approach the students in Group C were divided into six heterogeneous groups. The students worked in their teams daily, teaching and learning the vocabulary list. They worked together writing a set of sentences using the vocabulary words. They also collaborately worked a vocabulary sheet where they matched the meanings to each vocabulary word. The students also recited the vocabulary list each day. Students in Group C took an individual vocabulary quiz over each story that was graded by the teacher. Individual as well as group grades were calculated. The teams were rewarded based upon how well the team members maintained or surpassed their base scores. At the end of the unit, both comparative groups were given a unit vocabulary test, provided by the textbook company, Scott, Foresman. These scores were then compared using a T test as the test of statistical significance.

Hypothesis

Students in Group C will score significantly higher on a reading vocabulary test than students in Group T.

Definition of Terms

For the purpose of this study the following operational definitions were used:

Whole-class traditional vocabulary approach is a term used to describe the method of how a teacher presents reading vocabulary to the whole class before reading a story. The words are read orally from a chart each day they work on a story. The students read a sentence from the chalkboard or overhead that contains the vocabulary word. The word meaning is discussed through context by volunteers .

Student Teams Achievement Divisions(STAD) are four member learning teams that are mixed in performance level and sex. The teacher presents a vocabulary lesson, and the students work within their teams to ensure that all team members have learned the vocabulary. All students take individual quizzes, without help from one another. Students' quiz scores are compared to their own past averages, called a base score. Points are awarded based on the degree to which students meet or exceed their base score. Team scores are formulated.

Individual accountability is achieved by calculating group scores based on

the sum of individual test scores. This focuses the activities of the group members on increasing the achievement of all group members.

Interpersonal skills are the application of cooperative skills in good working relationships among team members, decision making, and conflict management.

Positive interdependence is when group members perceive that their individual success in learning is linked with the success of the group as a whole.

Promotive interaction is when the group engages in discussion, encouragement, support, and feedback for the success of the team.

Group processing is periodic reflection done by the team to reflect on what they are learning and how they are working as a group.

Group rewards, or certificates, are given after quizzes. They are intended to provide incentive for the cooperative teams to encourage and help members succeed so that it helps the group score.

Cloze procedure is a form of sentence completion where the overall meaning of the sentence helps the reader determine the word that is missing.

Limitations

A limitation in this study was the varying number of students in the cooperative learning teams due to student absences.

For this study, this researcher only used vocabulary words presented in Book E, third grade level of the 1993 Scott Foresman reading text.

Only two classes of third grade students from Northridge School were used for this study. Northridge School is in a small rural town in northwestern Ohio. It was assumed that the teamed and the traditional groups were evenly matched for ability and achievement.

Significance of the Study

This researcher believes this study might be useful for elementary teachers who want to learn the benefits of cooperative learning teams. It could be used to show an alternative method of teaching reading vocabulary words as compared to a traditional whole-class method. It would be of benefit to know how to address the issue that high academic students do all the work and do not benefit from the collaboration of the team. This alternative method of teaching may be of interest to the reader, as a parent, or an educator of elementary students.

Many benefits can be gained when reading vocabulary instruction is combined with cooperative learning methods. Not only is there higher achievement, but also an increased acceptance of differences, improved attitudes toward school, and enhanced self-esteem. Each of these goals are valuable for all children.

CHAPTER II

REVIEW OF THE LITERATURE

The purpose of this chapter was to review the literature on cooperative learning. It is divided into the following four subsections: research on traditional learning methods, research on cooperative learning, benefits of using cooperative learning, and summary.

Research on Traditional Learning Methods

Cooperative learning can address the many ills that education is beset with because of the competitive traditional outlook of teaching. As stated by Charles (1989), Glasser and Johnson argue that this competitive outlook causes students to attempt to excel at the expense of their peers. It provides ultimate success for only a small number of individuals, while some lag behind, lose interest and become unproductive. The competitive traditional approach, or individual approach, does not adequately prepare students for cooperative efforts required of them in later work and home lives.

With the competitive approach, low achievers often receive negative

feedback on their academic efforts. High achieving students are not stimulated by the academics. Student needs are often not met. They feel helpless, controlled, and bored. Teachers are on center stage, controlling what is being learned by the students. Cooperative learning enables a teacher to be a facilitator within the learning process. Students are able to take an active role in their learning. Moreover, they learn the social skills important in life. They work with others for success and enjoy an equal chance for recognition.

As Sapon-Shevin (1989) states:

Ideally, cooperative learning can lead to both student and teacher empowerment, can help schools become models of democracy, allowing all participants in the classroom and the school to have a voice in what happens and to learn how to make and implement fair and reasonable choices.

Traditional whole-class instruction is less than satisfactory for most pupils of any age, and often produces many negative consequences for both teachers and students. Some of these negative consequences are serious enough to conclude that whole-class traditional instruction should be retired as the primary mode of teaching. Whole-class traditional instruction can contribute to boredom, rote learning, thoughtlessness, and a lack of motivation, although it cannot be sited as the only source. This traditional instruction can also generate

undesirable outcomes, such as social distance between peers, especially between ethnic groups. It also may contribute to harmful social comparison processes, more tightly knit cliques, and many more students at the lower level of achievement (Sharan, 1990).

The whole-class traditional method enjoins teachers to treat most students in the class the same. Students are expected to learn the same material, in the same way, and at the same pace. This type of instruction isolates pupils psychologically from one another to allow teachers to talk to all students at the same time. This generates competition for the teacher's praise and attention by emphasizing public recitation in response to the teacher's questions. Students feel bad when another student is called upon because they are not being recognized. Negative interdependence is reinforced. When a student incorrectly answers a question, the other pupils are happy because now they might have a second chance to be recognized. Sharan and Shaulov (1990) stated that teachers using this approach frequently employ competition among pupils to stimulate student motivation to achieve. Students' fear of failure increases because someone inevitably loses in a competitive situation. Fear of failure and negative consequences of social comparison reduce students' motivation to learn.

Students become dependent on external motivation to learn.

As today's research indicates, it is now recognized that higher achievement by all the members of the class benefits the whole class. Less capable students accomplish a higher quality of work. We could use cooperative learning to model what *inclusive communities* might look like: classroom communities in which everyone helps everyone else, fewer students are left behind, and satisfaction derives from overcoming obstacles together (Sapon-Shevin, 1989). Students' attitudes improve because of successful experiences in challenging situations. For these reasons, it is important for teachers to organize learning activities that lead to group, rather than individualistic achievement (Charles, 1989).

Research on Cooperative Learning

Cooperative learning refers to a set of instructional methods in which students are encouraged or required to work together on academic tasks (Slavin, 1987). The theory behind cooperative learning is for students to master academic objectives and develop essential social skills at the same time. Cooperative learning is a way to structure small learning teams in classrooms. Students are placed into heterogeneous groups, based on academic ability and past

achievement, to complete assignments, do research, and to help each other master subject matter. They are taught social skills so they can work together cooperatively.

According to Ajose and Joyner (1990), cooperative learning characteristics include:

1. positive interdependence - students perceive that their individual success at learning is linked with the success of the whole group.
2. individual accountability - each group member is responsible to finish all assignments, master instructional objectives, and ensure their group members learn.
3. promotive interaction - this is the group discussions, the support, encouragement, and feedback in which group members engage.
4. interpersonal skills - the application of such cooperative skills as decision making, conflict management, and maintaining good working relationships.
5. group processing - periodic reflection done by the team to reflect on what they are learning and how they're working together as a group.

Research today indicates these problems associated with the whole-class

traditional setting can be minimized if not eliminated through the use of cooperative learning teams. Two major theoretical perspectives behind the cooperative learning approach are developmental and motivational (Slavin, 1987).

The developmental perspective behind cooperative learning is derived from the theories of Piaget, Vygotsky, and their followers. Their fundamental assumption is that interaction among children around appropriate tasks increases their mastery of critical concepts or skills. In Vygotsky's view, as stated by Slavin (1987), collaborative activity among children promotes growth because children who are close in age are close to one another's developmental stages. They model cooperative group behaviors more advanced than those they could perform alone. This view is supported by several studies, as reported by Slavin (1987), which concluded that when conservers and nonconservers of about the same age work on tasks requiring conservation, the nonconservers generally develop and maintain conservation concepts.

On the basis of such studies many developmental theorists have called for increased use of cooperative learning activities in schools. Their argument is that interaction among students on learning tasks in itself will lead to improved

achievement. Students will learn more from one another in their attempts to explain or defend their viewpoint which will lead to higher quality understandings (Slavin, 1990b).

Motivationalists differ from developmentalists in that they are more concerned with the reward or goal structures under which group members operate rather than primarily on the quality of interaction among students. Cooperative goal structures create a situation in which the only way group members can attain their personal goals is if the group is successful. Therefore, rewarding groups based on group performance as a whole creates an interpersonal reward structure in which group members give or withhold praise and encouragement in response to their teammates' task-related efforts (Slavin, 1989). This means, according to Slavin (1987), two elements are required to make cooperative learning more effective: group rewards and individual accountability. Group rewards are used to encourage and help group members perform whatever task helps the group to succeed. Individual accountability focuses the activities of the group members on increasing the achievement of all group members.

Classroom research in the past 15 years clearly supports the motivational

viewpoint of cooperative learning. Of 28 studies of cooperative learning methods, cited by Slavin (1983), using group rewards based on individual accountability, 25 (89%) found significantly greater achievement in cooperative than control classes, and only three found no difference. More recent studies have found similar results. Today, for cooperative learning to be effective, simple peer interaction is not enough. Recognition of student teams based on the sum of their individual learning is essential (Slavin, 1987).

The three most prominent motivationalists in the field of cooperative learning today are Robert E. Slavin, David W. Johnson, and Roger T. Johnson. All three believe group rewards and individual accountability are essential for cooperative learning to be effective in today's schools. They take a different approach about how specific the program should be when it is implemented.

Robert E. Slavin has developed a curriculum specific approach with John Hopkins University. They emphasize specific behaviors among teachers rather than giving them general principles and leaving it up to them to decide how to structure the classroom. Teachers trained in this approach are given detailed procedures of what and how to teach (Brandt, 1989-90). Slavin (1990b) believes that cooperative learning can serve to introduce improved practices or content,

such as an emphasis on reading skills, or instruction to math. It can also be designed specifically to accomodate a wide range of student skills in one classroom. As stated by Slavin, Madden, and Stevens (1989-90), research supports the idea that comprehensive approaches that combine cooperative learning with other instructional aspects can be effective in increasing the achievement of all students.

Slavin and his colleagues at John Hopkins University developed Cooperative Integrated Reading and Composition (CIRC). CIRC is a comprehensive program for teaching reading, writing, and language arts in the upper elementary grades. It consists of three basic elements: basal-related activities, direct instruction in reading comprehension, and integrated language arts and writing. Students work on activities in heterogeneous learning teams which follow a regular cycle that involves teacher presentation, team practice, independent practice, peer preassessment, additional practice, and testing (Slavin, 1988).

A widely used structural approach to cooperative learning is Student Teams-Achievement Divisions (STAD). It is applicable to a wide range of grade levels, subjects, and school and classroom characteristics. Slavin (1990b) feels

that the broad applicability of this model is a strength, and accounts in large part for its popularity today.

STAD has been widely researched. It has five major components: class presentations, teams, quizzes, individual improvement scores, and team recognition. The class presentation is usually direct instruction or lecture. The class presentations are clearly focused on the STAD unit, and the students realize they must pay close attention in order to do well on the quizzes which determine their team scores. The four to five member teams are heterogeneously mixed, their function being to prepare their members to do well on the quizzes. Emphasis is placed on team members doing their best for the team, and on the team doing its best to help its members.

After the teacher's presentation and the teams practice, the students take individual quizzes. Students do not help one another during the quizzes. This makes every student individually responsible for knowing the material. Students can then earn individual improvement points based on any improvement from past performances. They are given a base score derived from their average performances on similar quizzes. Then students earn points for their teams based on how much their quiz scores exceed their base scores. There

is team recognition in the form of certificates or other rewards if their average scores exceed a certain criterion. This improvement score system gives every student a good chance to contribute maximum points to the team if the student does his best and shows substantial improvement (Slavin, 1988).

Benefits of Using Cooperative Learning

According to Slavin (1987) there is wide agreement among reviewers of cooperative learning that cooperative methods can and usually do have a positive effect on student achievement. Johnson and Johnson concluded from a study conducted in 1987 that this increase in student achievement through the use of cooperative learning groups occurs because the very nature of these groups produce involved participation which creates conflicts among the ideas, opinions, conclusions, theories, and information of the team members. When these conflicts are managed skillfully there is greater retention of learned material. Students develop reasoning strategies by cooperating to exchange information.

D. W. Johnson, G. Maruyama, R. Johnson, D. Nelson, and L. Skon (1981) reviewed studies from 1924 to 1980 which compared competition and individual learning with cooperative learning. In 60 percent of the studies comparing

competition with cooperation, cooperation was found to promote statistically higher achievement. In 7 percent of the studies competition showed higher achievement than cooperation, and 33 percent of the studies showed no difference between the two. The studies comparing cooperation with individualistic methods showed 69 percent favoring cooperation, 6 percent favoring individualism, and 27 percent showing no significant difference (Johnson et al., 1981).

Schultz (1989-90) reports, as stated by D. Johnson, that teachers need to adequately prepare students for cooperative learning. And they need to focus on the difference between group work and cooperative work. There is general consensus among the researchers that in order for cooperative learning to increase student achievement there needs to be group goals, or positive interdependence; individual accountability; and group processing, or interpersonal skills.

The first of these, group goals or positive interdependence, refers to the degree to which students believe that they are responsible for each other's learning (Bell, Roubinek, and Southard, 1989). Johnson and Johnson (1984) believe that in order for a learning situation to be cooperative, students must

realize that they are positively interdependent upon one another in their team.

This may be achieved through mutual goals, division of labor, dividing materials, resources, or information among team members, assigning students differing roles, and by giving joint rewards. Through positive interdependence students learn that they need not depend entirely upon the teacher, but can, in fact, draw upon their own learning and the learning of their teammates (Tyrrell, 1990). Slavin (1983) stated that out of 25 studies in which groups were rewarded based on their members' learning, 22 (88%) found positive effects on student achievement, while none of the nine studies that did not use such group rewards found positive achievement results.

The second essential feature necessary for cooperative learning groups to increase student achievement, is individual accountability. This means that learning teams help maximize learning for each member, and each member is held individually accountable for accomplishing the intended learnings (Charles, 1989). Student mastery of the assigned material is assessed. The group is given feedback on how each group member is progressing so the team members know who to help. Making students individually accountable ensures that every team member provides his or her share of the group's work and is not simply letting

everyone else in the team do the work.

The last essential feature that is required for cooperative learning groups is group processing, or interpersonal skills. Students need to be taught the social skills needed for collaboration, and they must be given feedback on how well their learning groups are functioning in order to maximize their effectiveness. (Johnson and Johnson, 1984).

Johnson and Johnson (1984) also stated that simply putting students in groups and telling them to work does not produce cooperation and certainly not the higher achievement and positive social outcomes that can result from the use of cooperative groups. There are certain steps which need to be followed when teaching students these interpersonal and small-group skills. Students must:

- (1) understand the need to use the skill.
- (2) understand what the skill is and when it should be used.
- (3) practice that skill over and over in order to master a social skill.
- (4) evaluate how frequently and how well they are using the skill.
- (5) persevere in practicing that skill.

The long-term outcomes of students mastering these social skills includes greater employability and career success. The short-term outcomes include

greater learning, retention, and critical thinking.

Yager, Johnson, Johnson, and Snider (1986) conducted a study to compare the achievement of members of cooperative learning groups that process and do not process their functioning. The three achievement measures which were used were daily achievement, achievement at the end of an instructional unit, and retention over a three-week period. The achievement of students in both cooperative conditions were compared with the achievement of individual student learning. The results of this study provided strong evidence that having members of cooperative learning groups discuss and evaluate how well their group is functioning and how they may improve its effectiveness has a sizable and positive effect on student achievement. It was found that members increase their productivity by gaining insight into how to behave more effectively and by generating feedback that improves the group's effectiveness and reinforces them for engaging in collaborative skills.

This infers that students need to gain essential skills required for them to function as thoughtful, responsible and cooperative learners. Teachers need to provide the experiences pupils need to gain practice in the development of these skills. Without such experience or practice, pupils will not be able to perform in

new ways.

Since cooperative learning involves students working together as equals to engage them in active rather than passive learning, it also has positive effects on social, motivational, and attitudinal outcomes. Many researchers have studied these noncognitive outcomes, and have found evidence that cooperative learning can have impact on a broad range of variables. The most extensively studied of these are intergroup relations, acceptance of mainstreamed academically handicapped students, self-esteem, pro-academic peer norms, locus of control, and cooperative behavior (Slavin, 1990b).

The most consistent of these is the effect on intergroup relations. Slavin (1989-90) stated that when students of different racial or ethnic backgrounds work together toward a common goal, they gain in liking and respect for each other. According to Sharan and Shaulov (1990) this is due to the fact that students are working together toward a common goal free from competition. This cultivates the pupil's sense of acceptance on an equal footing with the other teammates. Thus, the friendships students develop for each other tend to increase their motivation to learn and they encourage each other to achieve (Johnson and Johnson, 1990).

The results of studies relating cooperative learning to intergroup relations, as reported by Slavin (1990b), clearly indicates that when students work in ethnically mixed cooperative learning teams, they gain in cross-ethnic friendships. The research also indicates that the effects of cooperative learning on intergroup relations are strong and long-lasting, and are more likely to be seen in close, reciprocated friendship choices.

Using cooperative learning teams with mainstreamed academically handicapped students can have positive effects in the classroom. Augustine, Gruber, and Hanson (1989-90) stated that many mainstreamed students lack social skills and have low self-esteem. When they are placed in small heterogeneous cooperative groups and assigned specific roles, not only does their achievement increase, but their psychological health improves as well. According to Slavin (1990a) the research on cooperative learning and relations between academically handicapped and normal-progress students generally show that cooperative learning can overcome barriers to friendships. Slavin also believes these improvements can be obtained while achievement is being enhanced for everyone in the class.

One of the most important psychological outcomes of cooperative

learning strategies is their effect on the student's self-esteem. Students' beliefs that they are valuable and important individuals are critical factors in their ability to withstand the disappointments of life, to be confident decision makers, and ultimately to be happy and productive individuals (Slavin, 1990b). In studies which involved 19 Ohio classrooms, as reported by Tyrrell (1990), the teachers reported that low self-esteem students seemed to feel better about themselves because they were succeeding academically. This gave them more confidence in themselves and in completing their schoolwork. Feelings that they are well-liked by peers and doing well academically are, according to Slavin (1990b), two of the most important components of students' self-esteem.

Cooperative learning strategies do, in fact, effect both of these components: students typically are named as friends by more of their classmates, feel more succesful in their academic work, and, as a result, achieve more than they do in traditional classrooms.

Another important aspect of cooperative learning is that the cooperative goals create peer norms that support higher achievement. Studies conducted in this area, as reported by Slavin (1990b), indicated that cooperative incentives motivate students to try to get each other to do academic work, and this gets

students to feel that their classmates want them to do their best. Thus, if the peer group can be enlisted to encourage achievement, then achievement should increase. Students will understand that by working together they can be smarter and more powerful than by working alone.

The single personality variable that is most consistently related to high academic performance is the student's internal locus of control. This refers to the degree to which students believe that their academic success depends on their own efforts. There is some evidence that cooperative learning methods make students feel that they have a chance to succeed, that their efforts will lead to success, and that achieving success is a valued goal (Slavin, 1990b).

Finally, cooperative learning has been shown to have a positive effect on students' cooperative attitudes toward their fellow students. After participating in cooperative learning teams over a period of time, students begin to realize that helping one another learn is not just applied on occasion, but is a fundamental principle of classroom organization. Ultimately, they realize that every students' success is everyone's success (Slavin, 1990a).

Summary

Thus, the basic social competencies needed to interact effectively with one another are ignored in an individualistic goal structure. Cooperation involves sharing, helping, communication, and mutual concerns. The cornerstone to building and maintaining stable marriages, families, careers, friendships, and communities is the ability to work cooperatively with others. Teamwork, communication, effective coordination, and divisions of labor characterize most real-life situations. The most logical way to ensure that students master the cooperative skills required in most task-related situations is to structure academic learning situations cooperatively.

Cooperative learning has the potential to transform classrooms, schools, and ultimately, society, by creating communities of caring and support, which, in turn, engender high levels of achievement in many domains. Working together, communicating, sharing, finding common goals and the common ground - these are central values for us and ones that can be realized in classrooms through cooperative learning (Sapon-Shevin and Schniedewind, 1989-90).

As Sapon-Shevin and Schniedewind (1989-90) state, by using the principles of cooperative learning and the values of cooperation, we can

empower teachers and students to value cooperation and affirm interpersonal relations. Truly cooperative schools can be created and a society in which people really do work together for shared, equitable goals.

Thus, by combining cooperative learning with vocabulary instruction in the classroom can provide numerous benefits. Children learning to work together using self-assessment and team rewards, will improve in achievement, motivation, collaboration, socialization, self-esteem, and individualization.

CHAPTER III

METHODOLOGY

The purpose of this chapter is to describe the methodology used in this study. The ideas this chapter will inform the reader about are listed under these subsections: subjects and setting, research design, instrumentation, and data collection and analysis.

Subjects and Setting

The subjects were 51 third grade students from a small rural town in northwest Ohio. They ranged in age from eight to ten years. The subjects were randomly assigned to the two classrooms by the building principal according to the previous year's overall grades. The 25 subjects in Comparison Group T were 11 male and 14 female students. Comparison Group C consisted of 12 male and 14 female subjects. Four of the students in Comparison Group C were learning disabled in an inclusive setting. The students' abilities in both classes ranged from low average to high according to the Comprehensive Test of Basic Skills.

The setting of this study was Northridge Elementary School. This school has an attendance of approximately 530 students. It houses three classes of second grade, nine classes of third grade, and nine classes of fourth grade with one class of multi-handicapped students. Northridge Elementary School is located in a small rural town of 10,000 people in northwest Ohio.

Research Design

This study was a post-test only, quasi-experimental design of intact comparison groups. A pretest was given to both comparison groups for the purpose of validating that the two groups were comparable in vocabulary ability.

This study compared the effectiveness of teaching reading vocabulary through a traditional whole-class approach (Comparison Group T) to a cooperative learning team approach, specifically STAD (Comparison Group C).

In Comparison Group T, the teacher began reading class each day with the reciting of the vocabulary list. The students were introduced to each new vocabulary list using direct instruction. The students read sentences containing the vocabulary from an overhead. From context clues, the meanings of the vocabulary words were discussed with the teacher calling on volunteers. As the

story was read from the basal, the vocabulary was pointed out and discussed.

When the word list was read orally each day the teacher quizzed the group about the meanings of the words. Again, this was done with students volunteering answers. There was only one vocabulary sheet included in the workbook for this unit and the teacher used it as a worksheet. There were no other worksheets used by the teacher to check for vocabulary comprehension. If a student was absent they were given the work they missed, but no special help was given on the vocabulary.

Comparison Group C used the STAD model of cooperative learning. The class was divided into six groups. Four groups had four members consisting of two females and two males, with one high, one low, and two average students. Two groups had five member teams with three females and two males. They were comprised of one high, one low, and three average students. The learning disabled students were distributed among four different teams and counted as the low member of the group. To facilitate team learning the desks were arranged in groups of four or five facing each other. Each team selected a name of their choice for their team. Students worked in their teams for a time period of four weeks. Reading vocabulary was worked on daily according to a

schedule. A new story was presented every three days.

The three day schedule was as follows. On the first day, the words were presented on the board. The words were read aloud twice. The first time, the teacher said the word and the students repeated it. The second time through the list, the words were read in unison. Taking turns in their teams, the students looked up each word. Each student read a definition and the example sentence. The group discussed the meaning. This procedure was repeated until all the words were completed. At the end of this session, the group collaboratively matched each vocabulary word with their correct meaning on a group sheet. That same day, the words were introduced in the story and discussed.

On the second day, the students in each group were given a paper with the vocabulary used in sentences. This sheet was an overhead provided by Scott Foresman. This researcher copied it for the students' use in cooperative groups. Again, the teams read the words aloud. In their teams the sentences were read with the meanings of the words discussed using context clues. Oral sentences were made. The team members worked together to write a set of sentences using all of the words on the list.

The third day, the teams read the vocabulary words aloud. In their

cooperative groups, they took turns reviewing the meanings of the words and using them in sentences. Later, during the same class period an individual quiz over the vocabulary words was given. Usually, the quiz had the students use cloze procedure to fill in the blanks of a sentence with the correct vocabulary word. Two quizzes had each student use some words in sentences, as well as, fill in the blanks. All quizzes had ten items. The teacher graded the tests and assigned individual as well as team grades. The team scores were posted in the classroom and the teams were rewarded according to how well students equaled or surpassed their base score. The rewards were in the form of recognition and certificates. If a student was absent on any given day, it was the team's obligation to work with that student until they were confident that student knew the meanings of the words.

Instrumentation

At the end of the reading unit, a comprehensive vocabulary test was given to both Comparison Groups C and T. (See Appendix A.) This assessment test came from the vocabulary section of the Reading Skills Assessment booklet for Anthology E of the third grade text from Scott Foresman. It was a ten sentence test. Sentences were provided with the vocabulary word in boldface.

Underneath each sentence, four choices of meanings or synonyms were presented. The students were to fill in the circle in front of their answer choice. This test is one typically given at the end of each reading unit or anthology, if the teacher uses the tests. The test booklet tests other skills also. For this study, the researcher only used the vocabulary section of the test. The vocabulary used on the test were the same vocabulary presented from the basal stories. This researcher chose to use the basal test because both comparative groups were familiar with this form of the test and believed it to be more reliable for both groups taking it. Both teachers presented the test the very same way. After handing out the tests, the students and the teacher read the boldfaced vocabulary words. The students were instructed to read the sentences and meanings; choosing the one best meaning for the boldfaced word. The tests were done individually by each student. The teachers only provided help with pronunciation of words.

Data Collection and Analysis

The researcher used a two-step strategy in analyzing vocabulary achievement data. First, testing for group differences was done. Analysis of pretest data revealed the two groups were highly similar in their vocabulary

knowledge. Specifically, the mean pretest score for Group T was 8.52 and the mean pretest score for Group C was 8.5 out of a possible 10. The vocabulary was presented in the stories as described in the previous section. Both teachers worked on the same reading unit in the same four week period. The basal vocabulary test was given by both teachers in the same week. If a student was absent on the test day, they made it up the next day with no extra help other than how it was presented to the rest of the class. The researcher graded each group's tests. The raw scores of each child in Group C , numbered one to 26, were obtained and listed on a table. The raw scores of Group T were listed the same way. The mean and standard deviations were then calculated. To test for statistical significance, a t-test for non independent means was conducted to test the following null hypothesis with alpha set of .05. There will be no significant difference in reading vocabulary scores for Groups C and T when the groups' mean vocabulary test scores are compared.

CHAPTER IV

RESULTS

The basis of this study was to compare the effectiveness of teaching reading vocabulary through a cooperative learning team approach (STAD) to a whole-class traditional method. A unit of reading was taught by two instructors with the vocabulary presented by the two methods. A reading vocabulary post-test was given to both groups and compared. A t-test for non independent means was computed at the .05 level of significance after the mean scores and standard deviations for each group were calculated. This chapter will present the results of this research.

Findings of Data

Twenty-six students were involved in Group C. Group T contained twenty-five students. The post-test reading vocabulary scores for each student in both groups were recorded. (See Appendix B) The grades for each group were totaled, and a mean score was derived for each group. The mean score for Group C was 8.73 out of a possible 10 with a standard deviation of 1.34. Group T

had a mean score of 8.96 and a standard deviation of 1.51. (See Table 1)

TABLE 1: COMPARATIVE MEANS* AND STANDARD DEVIATIONS FOR
GROUP C (N=26) AND GROUP T (N=25)

Group	Mean	Standard Deviation
C	8.73	1.34
T	8.96	1.51

*Note: Not statistically significant with alpha set at .05

Discussion of Results

Pretesting of the two comparative groups determined the groups were similar in vocabulary achievement prior to the treatment. The null hypothesis stated there would be no significant difference in reading vocabulary scores for Groups C and T when the groups' mean vocabulary test scores were compared. The results of the testing were not significant and the null hypothesis was accepted. Since the researcher's null hypothesis was accepted, it appears from this study, that a traditional whole-class approach is just as effective in teaching reading vocabulary as the cooperative learning team approach.

While both comparative groups did equally well, the writer's classroom experiences confirmed the findings of Johnson and Johnson (1984), noting higher quality learning, increased motivation, and positive attitudes toward learning. Of special interest was the necessity for modeling cooperative behaviors and assessing team cooperation. Indeed, putting children in groups and telling them to work together did not make learning cooperative.

Interest, motivation, and achievement grew with the concept of team scoring. It indeed made the students more willing to help each other for the benefit of the team. This finding agreed with the work of Slavin (1987), who

reported that team rewards and individual accountability based upon improvement were essential to cooperative learning.

The researcher also noted that cooperative learning teams gave each student a chance to participate without competing against each other for the teacher's attention. All students discussed with each other and spoke the vocabulary more than they would have if taught the traditional way.

While there was no difference in the mean scores of the two comparative groups, certain individuals responded well to cooperative learning teams.

The researcher found that the cooperative learning teams did help individual students in some of the teams to achieve higher reading vocabulary quiz scores. Therefore their reading grades improved. The learning disabled and at risk students were given an extra boost during the individual quizzes because the team practiced the words and meanings. This method resulted in good short term memory for these students. Their self-esteem rose because they saw that they could help the team, but never hurt it, when working for improvement points for the certificates. This supports the findings of Augustine, Gruber, and Hanson (1989-90) and also of Slavin (1990b).

One child in particular, who learns almost totally auditorily had great

scores on his vocabulary quizzes. Being in a cooperative group gave him the chance to hear the vocabulary words, discuss them, and use them in sentences, and process them auditorily. He was so proud of the improvement points he was always able to give to his team. This supports the findings of Tyrell (1990), who reported that low self-esteem students feel better about themselves when they succeed academically. Slavin's (1990b) research about cooperative learning was also supported. His findings say that cooperative learning methods make students feel that they have a chance to succeed, that those efforts will lead to success, and that achieving that success is a valued goal.

CHAPTER V

SUMMARY, CONCLUSIONS, AND IMPLICATIONS FOR PRACTICE

Summary

In chapter one, the researcher provided the background for cooperative learning and its history. The writer explained how teachers have used peer teaching and group work for many years. Much research has been conducted in the last fifteen years to alleviate problems teachers have had with using cooperative learning and to help them realize the benefits of using cooperative learning. Researchers have conveyed group rewards and individual accountability as important components for the success of cooperative learning. The work place and society value citizens who are able to interact effectively. In addition, fluent verbal and written vocabulary skills are valued. Cooperative learning provides a method for both to be accomplished.

The purpose of the study was stated that it was a comparative study of two methods of teaching reading vocabulary: traditional whole-class approach and a cooperative learning model called STAD. Both methods of teaching

reading vocabulary were briefly outlined by the writer. A hypothesis for this study claimed the cooperative learning group would achieve higher scores on a reading vocabulary test than the traditional whole-class group. The terms defined by the researcher as applicable to the study were: whole-class vocabulary approach, STAD, individual accountability, interpersonal skills, positive interdependence, promotive interaction, group processing, group rewards, and cloze procedure. Limitations to this study were presented. The writer then explained the significance of the study as being useful for the reader to learn the benefits of cooperative learning teams. It showed that cooperative learning teams could be an alternative method of teaching.

In chapter two, the researcher introduced the research on traditional learning methods. It was cited that traditional methods employ competition among students, which for low achievers may provide negative feedback on their academic efforts. Cooperative learning was defined as a learning method where students work together on academic tasks. Characteristics of cooperative learning include positive interdependence, individual accountability, promotive interaction, interpersonal skills, and group processing.

An explanation of developmental and motivational perspectives of

cooperative learning was presented. Classroom research on cooperative learning supports the motivationalist theory. The three most noted names in cooperative learning are Robert E. Slavin, David W. Johnson, and Roger T. Johnson.

Research on cooperative learning models, especially STAD, Student Teams-Achievement Divisions, was cited. This writer then went into depth citing the research proving the benefits of using cooperative learning. These benefits may include higher achievement, better intergroup relations, improved attitudes toward learning, acceptance of academically handicapped students, enhanced self-esteem, and cooperative behavior.

In chapter three, the researcher explained the methodology used in this study. The study consisted of fifty-one third grade students working in two classrooms. Twenty-six children were grouped into cooperative learning teams. Daily assignments included were the recitation of vocabulary words, vocabulary group sheets, a set of oral sentences, and an individual quiz. Team rewards, self-assessment, and individual accountability were stressed.

In the second classroom, twenty-five student recited the vocabulary words each day. Meanings of the vocabulary words were discussed through the use of context clues using sentences from an overhead.

The researcher then explained the instrumentation employed in the study. A discussion of how the data would be collected and analyzed followed. A basal reading vocabulary test would be administered after the reading vocabulary unit was presented. Raw scores, means, and standard deviations would be calculated. A t-test for non independent means would be calculated at alpha set .05. The writer's null hypothesis was stated as there would be no significant difference in the mean reading vocabulary scores when compared between the two comparative groups.

In chapter four, the researcher explained that the students in Group T and C were given a basal reading unit vocabulary test consisting of ten vocabulary words. In addition, the raw scores were tabulated. The mean scores and standard deviations for both comparative groups were calculated. When these figures were compared the researcher found there was no significant difference, and the null hypothesis was accepted.

This chapter will discuss the conclusions of this study based on the research findings. Also, implications for practice will be stated.

Conclusions

It appears from this study that a traditional whole-class approach to

achieve reading vocabulary is just as effective as a cooperative learning team approach. This was based on a post basal unit reading vocabulary test given to both comparative groups.

Implications for Practice

Despite the results of this study, the researcher continues to be interested in the power of cooperative learning for the following reasons. First, high motivation in the classroom was observed. Students were motivated to do well, not only for themselves, but for the team. They wanted their team to do well and earn certificates.

In addition, more participation was noted by the researcher. More chances for all students to discuss and use the vocabulary were given because of the very nature of cooperative groups. This, in itself, is an important part of cooperative learning groups. Several styles of learning were available to the students through their discussion, listening, and writing of the vocabulary. This is a definite benefit to learning disabled and at risk students who may have other styles of learning.

Another benefit this writer saw in using cooperative learning teams, was the positive attitudes of the teams. They showed patience working with all

members and they made sure everyone participated. This writer observed students who were previously unwilling to participate, now eager to give answers and discuss. They felt safer in small groups to discuss, versus with the whole class.

The STAD model of cooperative learning used in this study would work well in learning vocabulary in other subjects, like social studies and science. The vocabulary words would be discussed and pronounced more, which would facilitate memorization.

In order for cooperative learning to work well in a classroom, teachers need to be trained in its proper use. A full understanding of the different models of cooperative learning and how to use these models for different subjects is necessary. To achieve maximum benefits of cooperative learning, this writer recommends time spent on how to work cooperatively, and modeling by the teacher.

While this research failed to confirm higher achievement in reading vocabulary using cooperative learning, it is the researcher's opinion that, if the cooperative learning group had been using this method all year, a difference between the two groups would have been noted. This writer feels that the class

should have had more time to be better adept at using cooperative learning.

Based on the research done by this writer, it was reaffirmed in the researcher's mind that cooperative learning should be a part of every classroom. The benefits of using this method are worth the time spent learning and teaching it.

The results of this study indicate that the instructional method needs to be matched with a student's personal characteristics. The researcher feels that cooperative learning should be used as an instructional alternative to having students work alone, individually, or competitively. There is an important place in the classroom for many methods of teaching. Problems arise when one of these methods is employed excessively. In addition to cooperative skills, students need to learn how to compete for fun and enjoyment and how to work independently until an assignment is completed. Using cooperation predominantly in the classroom reduces the anxiety associated with competition. It allows for using individually structured learning activities as a part of a division of labor with a cooperative group task. This researcher believes that all three goal structures can be woven together in a lesson by setting up individual responsibility, peer teaching, competing as a change of pace, and ending in a

cooperative project. In this way, each student has a chance to do well according to how that student learns best.

APPENDIX A
VOCABULARY POST TEST

VOCABULARY

Read sentences 1–10. Look at the underlined word in each sentence and think about its meaning. Fill in the circle for the word or phrase that means the same or almost the same as the underlined word.

ANSWERS

- | | | | | |
|----|-----|-----|-----|-----|
| 1. | (A) | (B) | (C) | (D) |
| 2. | (A) | (B) | (C) | (D) |
| 3. | (A) | (B) | (C) | (D) |
| 4. | (A) | (B) | (C) | (D) |

1. Liz Boaz felt guilty when she carelessly dropped her brother's book in a puddle.

(A) like a child
(B) clumsy
(C) worried
(D) to blame

2. Our picnic ended with an invasion of ants.

(A) engine
(B) attack
(C) enemy
(D) audience

3. The population of this town is 10,000 people.

(A) number of people living in a place
(B) location on a map
(C) community
(D) number of people looking for work

4. What is the height of the Sears Tower?

(A) total cost to build
(B) distance around
(C) measurement from top to bottom
(D) number of rooms it contains

Go on to the next page.

5. There are three bedrooms in the apartment Wendy's family moved into.

- Ⓐ neighborhood to live in
- Ⓑ community to visit
- Ⓒ school to go to
- Ⓓ group of rooms to live in

6. A stream flows through the meadow.

- Ⓐ small river
- Ⓑ puddle
- Ⓒ flock of birds
- Ⓓ tide

7. Leaves floated on the surface of the lake.

- Ⓐ front
- Ⓑ edge
- Ⓒ water
- Ⓓ top

ANSWERS

- 5. Ⓐ Ⓑ Ⓒ Ⓓ
- 6. Ⓐ Ⓑ Ⓒ Ⓓ
- 7. Ⓐ Ⓑ Ⓒ Ⓓ
- 8. Ⓐ Ⓑ Ⓒ Ⓓ
- 9. Ⓐ Ⓑ Ⓒ Ⓓ

8. I told Wilbur how to get to my house, but he didn't understand.

- Ⓐ care
- Ⓑ listen carefully
- Ⓒ get the meaning
- Ⓓ get lost

9. Mom didn't mention that we were having guests for dinner.

- Ⓐ worry
- Ⓑ say
- Ⓒ realize
- Ⓓ care

Go on to the next page.

ANSWERS

10. (A) (B) (C) (D)

10. Once I saw his face, I
remembered his name.

- (A) thought of
- (B) could pronounce
- (C) forgot
- (D) wrote down

STOP!

APPENDIX B

RAW SCORES FOR COOPERATIVE LEARNING GROUP

AND TRADITIONAL GROUP

RAW SCORES

GROUP C

<u>Student</u>	<u>Score</u>
1	10
2	10
3	10
4	10
5	10
6	10
7	10
8	10
9	10
10	10
11	9
12	9
13	9
14	9
15	9
16	9
17	8
18	8
19	8
20	8
21	8
22	7
23	7
24	7
25	7
26	5

RAW SCORES

GROUP T

<u>Student</u>	<u>Score</u>
1	10
2	10
3	10
4	10
5	10
6	10
7	10
8	10
9	10
10	10
11	10
12	10
13	10
14	9
15	9
16	9
17	9
18	9
19	9
20	9
21	7
22	7
23	6
24	6
25	5

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