

Cooperative Learning

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In partial Fulfillment of the Requirements of the Degree of

MASTERS OF ARTS

In

TEACHING

By

Lisa Ornelas

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Under the guidance and approval of the committee, and approval by all the members, this field project has been accepted in partial fulfillment of the requirements for the degree.

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Table of Contents

<i>Chapter I Introduction</i>	2
<i>Statement of Problem</i>	3
<i>Background and Needs</i>	4
<i>Purpose of the Project</i>	7
<i>Project Objectives</i>	8
<i>Summary</i>	9
<i>Chapter II Review of Literature</i>	11
<i>Chapter III Project Development</i>	25
<i>Chapter IV Project Evaluation, Conclusion, and Recommendations</i>	30
<i>References</i>	33

Chapter I Introduction

Since the world's education system is becoming increasingly diverse, it is crucial that learning strategies are beneficial in educating a wide variety of students. Teachers must engage students so they retain and comprehend the subject matter taught in the classroom, and provide them with the proper social skills needed to succeed beyond the classroom environment. A learning method educators can use to help students develop these necessary skills is called cooperative learning. Cooperative learning is a strategy that develops healthy interaction skills, promotes success of the individual student and group members, and forms personal and professional relationships (Johnson & Johnson, 1999a).

Cooperative learning has several techniques for promoting an educational experience that facilitates students to move beyond standard classroom parameters (Fantuzzo, Ginsburg-Block, Miller, & Rohrbeck, 2003). The cooperative learning process focuses on students working collectively in groups, thus allowing them to simultaneously learn the subject matter effectively as well as practice interpersonal skills. Cooperative learning proves to be an effective way of instruction and has been introduced in educational systems throughout the world, including: The

United States, Canada, Germany, England, Saudi Arabia, New Zealand, Turkey, Panama, Singapore, and Hungary (Ysseldyke, 2002).

Statement of the Problem

Although research studies (Cohen, 1994; Johnson & Johnson 1999a; Stevens & Slavin 1995) have shown that cooperative learning is a successful learning method research (Antil, Jerkins, Wayne, & Vadasy, 1998) indicates that teachers seldom implement cooperative learning in the classroom setting. Of teachers who believed they were implementing cooperative learning correctly, research concluded that only 23% used the method correctly (Emmer & Gerwels, 2002)

Often times significant elements, vital to producing a cooperative learning environment are excluded from the lessons. Lopata, Miller, and Miller (2003) surveyed teachers and discovered a discrepancy of 26% for positive interdependence and 24% for individual accountability in teachers' actual and preferred use of the elements. Lacking many key components or completely excluding the cooperative learning method from the classroom, students continue to be deficient in social and educational skills. Students who would benefit from cooperative learning techniques are not instructed with this method; thus, continue to perform poorly in academic and cognitive growth. Even though teachers believe they are using cooperative

learning correctly, often times it is incorrectly applied or is completely omitted from the curriculum.

Background and Need

A majority of academic institutions neglect the learning process and focus solely on the outcome. Emmer and Gerwels (2002) observed fifty six lessons and of those lessons, only thirteen were considered to incorporate cooperative learning correctly, eight exemplified some of the cooperative learning values, and thirty five lessons did not qualify as a cooperative learning lesson. However, by successfully implementing cooperative learning, the process and outcome of gaining knowledge are equally valued. Several authors identify cooperative learning as students working together to accomplish a shared goal, by seeking an outcome that is beneficial to all group members (Cohen, 1994; Johnson & Johnson, 1999b; Steven & Slavin, 1995). A group of students working for a common goal creates unity in the classroom. When students work cooperatively they develop social skills that promote group members' success by helping, assisting, supporting, and praising each other's efforts to achieve a common goal (Johnson & Johnson, 1999b). Students aid each other in the process of learning thus assuring all members reach the desired outcome, minimizing competition among students.

Traditional instruction, such as lectures, demonstrations, explanations, answer-question routine, assigned reading, and guided practice, focus exclusively on individual academic goals (Antil, Jerkins, Wayne & Vadasy, 1998). Cooperative learning creates a learning environment that maximizes the potential of all students. A large-scale study (Lopta, Miller, & Miller, 2003; Johnson, Johnson, & Smith, 1998) on cooperative learning concluded that students who engaged in cooperative learning performed at about two standard deviations above students who learned within an individualistic or competitive academic environment. From the abundant number of researchers and authors who have written about cooperative learning, one team (Johnson & Johnson 1999a, 1999b) and two individual authors (Cohen, 1994; Stevens & Slavin, 1995; Madden & Slavin, 2001) are highly recognized for their contributions to cooperative learning.

Authors David and Roger Johnson (1999a, 1999b) have written extensively about cooperative learning. They believe there are five necessary elements required to facilitate cooperative learning. The first component is positive interdependence; stating students within the group are linked to one another in a way that one cannot succeed unless everyone in the group succeeds. Second is promotive interaction, where students work through academic lessons by helping and encouraging one another's efforts

to learn Individual accountability, the third element, is where all members assess individual group members through their participation within the group. Interpersonal and small-group skills, the fourth element, requires groups to function cooperatively as a team. The fifth component is group processing, where students analyze how well they achieve their goals, implement strategies to maintain an effective working relationship among group members, and determine how they can improve as a group and as individuals in future tasks.

Stevens & Slavin (1995) describes two elements for implementing cooperative learning in the classroom. Similar to Johnson and Johnson (1999b), group accountability is an essential feature in Slavin's model of cooperative learning. The other component is group goals, which can be presented in the form of group grades or recognition for finishing the task as a group.

Resembling Stevens & Slavin (1995) and Johnson and Johnson (1999b), Cohen (1994) emphasizes the importance of group tasks and the interdependence of students in order to complete a group task. Cohen includes an additional component, not included by Johnson and Johnson or Slavin, teacher accountability. Teacher accountability mandates that the instructor not excessively supervise the students while working in groups,

allowing students to learn from their peers. Steven & Slavin's (1995) model is in sharp contrast to traditional instruction, where students obtain educational knowledge solely from the instructor.

While each author has a different methodology as to what elements are necessary to create a functional cooperative learning classroom, all agree that cooperative learning far surpasses the limitations of traditional teaching and learning styles. These authors often cite one another for support throughout their own cooperative learning research articles. Much of their research extensively overlaps one another. While the authors vary in their cooperative learning method, all are acutely aware of the importance and of the need for cooperative learning within educational settings.

Purpose of the Project

The purpose of this field project is to create a brochure that gives instructors specific guidelines on how to execute lessons using cooperative learning guidelines. For teachers who want to use cooperative learning, the brochure provides a simple, easy to use tool to guide teachers while preparing and implementing lesson plans. Included will be instructions for grouping students, directions on proper conduct of instructors and students during the lesson, and effective assessment strategies.

The brochure will illustrate the teacher's role(s) as well as the student's role(s). Furthermore, the brochure will serve as a reference to the teacher. The teacher can refer to this brochure at anytime throughout the learning process in order make sure that he or she, as well as the students, stay within the parameters of cooperative learning throughout the educational process.

Project Objectives

The purpose of this project is to develop a brochure that outlines the necessary standards to create and implement cooperative learning lessons that meet the following objectives:

- Create a brochure that can be utilized in a variety of academic atmospheres.
- Outline standards for cooperative learning in a simplified and informative manner.
- Specify the roles of the students and teacher during a cooperative learning lesson.
- Demonstrate how to create an atmosphere where all students have a positive social and educational learning experience.
- Tie students' academic and social success to situations outside of the classroom.

Summary

Research demonstrates that cooperative learning is much more effective learning method than competitive and individualistic learning (Cohen, 1994; Johnson & Johnson, 1999b). Research indicates that cooperative learning produces higher academic achievement among a wide range of students (Armstrong-Messler, 1999; Calderon, Hertz-Lazarowitz, & Salvin, 1998; Stevens & Slavin, 1995; Vaughan 2002). It is a disservice to students not to utilize a learning method that allows for the success of all. Social and educational skills needed to succeed as effective students and peers are clearly accomplished in the parameters of cooperative learning. In addition, students need the skills they learn through cooperative learning to be successful in future careers.

With a higher level of diversity in school systems, there is a higher need for cooperative learning. Diverse students from various backgrounds and cultures bring many new ways of looking at problems. Cooperative learning shows students the power of bringing different opinions together. In addition, classes today have a wide range of special needs students. Each of these students has unique attributes and can contribute to a cooperative learning classroom environment. All students must be given a fair chance to succeed in academics while developing valuable social skills. Regardless of

the students' capabilities or backgrounds, students must be given the opportunity to have a fulfilling educational experience. Cooperative learning effectively engages students in the educational process and produces academic gains across a variety of student populations, academic subjects, and classroom arrangements (Fantuzzo, Ginsburg-Block, Miller, & Rohrbeck, 2003).

It is vital for education systems to adopt this cooperative learning. The positive gains from cooperative learning are desperately needed in schools. If cooperative learning continues to be ignored or practiced incorrectly within the educational setting, students will continue to suffer.

Chapter II Review of Literature

Cooperative learning facilitates academic achievement and creates positive social development among a wide variety of students. Obtaining academic and social success at school enables students to become successful adults. Yet with all of the positive implications cooperative learning has on students, teachers seldom use this learning method. Even though research indicates huge rewards for implementing cooperative learning, actual implementation of cooperative learning is minimal.

A two-year study conducted by Stevens and Slavin (1995) compared elementary schools implementing cooperative learning to schools that use standard instructional methods. Two treatment schools and three comparison schools were matched, deriving a sample of 873 second through sixth grade students. The treatment group fully adopted cooperative learning and utilized the method regularly both within the classroom and school environment. Prior to the study, teachers and administrators in the treatment group participated in training programs that educated them on how to make their school fully represent the values of cooperative learning. Throughout the study, faculty from the treatment groups were observed and mentored by the research staff. Within the two-year study the treatment group did not segregate gifted and learning disabled students from the class. The

comparison group did not mainstream gifted and learning-disabled students, a pull out system or separate classrooms were utilized. Comparison groups did not apply any teaching methods that consisted of cooperative learning values.

Both the treatment and comparison groups were academically tested using the California Achievement Test scores for Total Reading, Total Language, and Total Mathematics. Socially students were measured using the California Achievement Test, an attitude measure, and a social relations measure. Treatment and control schools administered all of the educational and social pretest at the beginning of the study, and two posttests at the end of each year. Results after the first year showed little difference between the schools using cooperative learning and the one using traditional learning. After two years, the treatment school showed significant improvements on all test. The treatment group outperformed the control group in academics and social growth. Both gifted and learning disabled students who were mainstreamed in the cooperative learning classrooms performed better academically, gained more friends, and reported feeling more confident than students in the traditional schools. The longevity of this study proves the effectiveness of a cooperative learning program implemented correctly.

A study conducted by Calderon, Hertz-Lazarowitz, and Salvin (1998) found that the effects of a cooperative learning program, Bilingual Cooperative Integrated Reading and Composition (BCIRC), significantly improved the reading, writing, and language skills of Hispanic students learning English. The study took place in Ysleta Independent School District, in El Paso, Texas, a border town to Mexico. Seven schools within the Ysleta Independent School District were selected for the study. Three of the schools in the district received the cooperative learning program, while the other four schools in the district served as a control group. Within the experimental schools, individual classes were matched with classes from the control schools based on mean pretest achievement scores (Calderon, Hertz-Lazarowitz, & Salvin 1998). Data was collected from two hundred and twenty-two second and third grade limited English speakers from all seven schools. Teachers in the comparison group used a traditional textbook reading method, and interchanged between teaching in English and Spanish. Cooperative learning was rarely utilized in the control group. Students who received BCIRC participated in daily activities that required students to work in groups on a variety of educational material. Students interacted with peers to promote the development of fluency and comfort with the English language. Within the cooperative learning setting, teams were

accountable for the educational success of the group and of its individual members.

Both groups were assessed by the Bilingual Syntax Measure, Texas Assessment of Academic Skills, and the Norm-Referenced Assessment Programs for Texas. The three treatment groups reported higher scores than the control groups. The results indicate that the third graders who participated in the program for an additional year, scored higher than second graders who only received BCIRC for one year. Third graders who participated in the BCIRC scored four times as high on reading, and twice as high in language proficiency than the control group. The results of this study show that implementing a cooperative learning program for bilingual students improves educational achievement and language proficiency.

In addition to bilingual students, cooperative learning positively impacts learning-disabled students. A study conducted by Antil, Jenkins, and Wayne (2003) studied teacher's perceptions of how cooperative learning academically and socially enhances special education and remedial students. Twenty-one teachers from low-income urban and suburban upper middle income were selected to participate in the study. All teachers had special needs students in their classes. Most of the special education students were classified with learning disabilities, yet some classes had students with

emotional disabilities, behavioral disabilities, and attention deficit/hyperactivity disorder. Participants in the study were interviewed by researchers, using a semi-structured protocol seeking information about (a) teachers current use and past experiences with cooperative learning, (b) teacher's judgments about the efficiency of cooperative learning for all students, (c) participation of students in cooperative learning activities, and (d) modifications they created for remedial and special education students (Antil, Jenkins, & Wayne, 2003)

Results from the interviews indicate that teachers believe cooperative learning benefits learning-disabled students by raising their self-esteem, allowing them to work in a less stressful environment, and producing successful academic work. All teachers concluded that seventy eight percent of their remedial students actively participate effectively as group members in cooperative learning activities. It is evident that cooperative learning can drastically improve the educational experience of learning disabled students.

A study conducted by Nancy Armstrong Messler (1999) observed the effect cooperative learning has on gifted students. The study took place in a small Midwestern school district. A total of nineteen fourth and fifth grade students participated in the study. The treatment group of nine students participated in cooperative learning lessons for ten weeks in a classroom of

students with a variety of educational abilities. The control group was a self-contained classroom with only gifted students, participating in cooperative learning lesson with only same ability students. To measure the affects of cooperative learning on students reading and self esteem, exceptional students were given a pretest/posttest. Both the treatment and control groups were assessed by Gates-MacGinite Reading Test and Coopersmith Self-Esteem Inventory.

When the study was completed the students were again given the reading and self esteem test to assess the affects of cooperative learning. Results indicated that while both groups' test scores increased after participating in cooperative learning lessons, there was no statically difference between the heterogeneous and homogenous classes in terms of reading test scores. The Coopersmith Self-Esteem Inventory posttest results indicated that students who participated in the cooperative learning classroom with mixed ability students ranked their self esteem much higher than the control group. In fact, the test scores of the self esteem test for the homogenous group decreased from the pretest. While cooperative learning proved to be a valuable learning method for both groups, socially exceptional students obtain a higher self esteem from working cooperatively with students who embody a variety of educational abilities.

Another important aspect of cooperative learning is the undeniable effect it has on students of varying races. Winston Vaughan (2002) studied twenty-one fifth grade students ranging in ethnicities from African American, Indian, and Azores descent. The study took place in Bermuda, which implements a curriculum parallel to that of the United States. Prior to the study students were educated about cooperative learning and given a pretest. The tests used were the California Achievement Test (CAT) and Attitude toward Mathematics Scale for Grades 4-6 Students (Peterson's 1978). After the pretest was administered, the students actively engaged in cooperative learning for the remaining twelve weeks. Students in the treatment group were taught using Slavin's (1978) Student Teams and Achievement Division (STAD). The control group received the schools traditional math curriculum, which does not consist of cooperative learning. A posttest was administered several times during the study.

Scoring between the pretest and posttest was measured by the one factor ANOVA design (Vaughn 2002). In all cases but one, statistically significant differences were found between the pretest and the posttest. These results strongly suggest that cooperative learning has a direct positive impact on attitudes towards math and achievement levels of students with color. Obtaining positive results with participants outside of the United

States, this study supports the concept that cooperative learning is a universal concept. Teachers who educate students of color should integrate cooperative learning in their daily instructional methods to assure all students are given the opportunity to perform at the best of their abilities.

Despite much evidence suggesting cooperative learning is an instructional method of teaching giving all students the ability to successfully acquire educational and social skills, cooperative learning is rarely practiced or implemented correctly. A study conducted by Emmer and Gerwels (2002) observed how teachers use cooperative learning and the extent to which curriculum taught by the teachers incorporated elements described by research developers, such as Cohen (1994), Johnson and Johnson (1999), and Madden & Slavin (2001). Eighteen elementary teachers from a large urban school district in the southwestern United States participated in the study (Emmer & Gerwels, 2002). Teachers were selected by nominations from elementary principals and administrators who claimed the instructors used cooperative learning extensively in their classrooms. Each teacher was observed for a minimum of three lessons. A total of fifty-six lessons were observed. Researchers derived extensive field notes from the observations, ranging from descriptions of how students worked in groups, on task rates, academic tasks, and teacher interaction. Interviews of

each teacher were followed by an observation. Interviews allowed teachers to elaborate on their experiences with cooperative learning, preparation of students and teachers for team work, grouping procedures, effects, benefits, problems, and limitations (Emmer & Gerwels, 2002). Lessons observed were classified by student engagement, student cooperation, and performance on the academic tasks. After observations, lessons classified as high on at least two of the three criteria and moderate on a third were considered successful. Lessons scoring low on one or more category and moderate ratings on the other categories were regarded as unsuccessful. Of the fifty-six lessons, thirteen lessons were considered successful, and eight lessons as less successful. Comparisons of teacher use of cooperative learning to components commonly used in cooperative learning models showed several discrepancies. Out of the fifty-six lessons observed, lack of individual accountability, teacher monitoring of groups, feedback from students, and assigned student roles were found in the teachers' lessons. Of the classrooms observed group work was apparent, but important standards needed to create a cooperative learning lesson were not put into practice. The result of this study showed that while the teachers often have students working in groups, important factors of cooperative learning are excluded from the lessons.

A study conducted by Antil, Jenkins, Wayne, & Vadsy (1998) studied two urban and suburban schools from the Pacific Northwest. Urban schools were racially diverse and half of their student body came from low-income households. In contrast, the suburban school was predominantly Caucasian, with only seven percent of students' low income. Surveys were administered to the teachers questioning them how often they implemented cooperative learning in their classrooms. Of the teachers who took the survey, 80% were willing to participate in the interview of the study. Twenty-one teachers were chosen to be interviewed. The interviews measured the participants' current use of cooperative learning, experiences with cooperative learning, the objectives and rationale for using it, and the teacher's judgments of the effectiveness of their students when using cooperative learning. The interviews also compared how the teachers developed cooperative learning in the teaching profession, versus to the models created by researcher-developers. Interviews were transcribed by an Ethnograph software package, using code words to interpret the material obtained during the analysis phase of the investigation. The study grouped the statements given by the teachers into five categories: frequency, rationale, strategies, problems, and efficacy of cooperative learning in their classrooms.

In the initial interviews, twenty-one of the teachers (eighty one percent) reported using cooperative learning daily. Interviews found four major themes about their rationale for implementing cooperative learning in their classrooms. The themes were academic learning, achievement involvement, social learning, and experience as learners. Efficacy was measured by how teachers perceived cooperative learning to meet their goals. Seventy-five percent reported this method always worked the way they planned. However, some students did not participate as efficiently as other group members.

The study compared the research of famous cooperative learning studies from Johnson and Johnson's five-element model, Slavin's two-element standard, and Cohen's four standards model to that of the teachers (Antin, Jenkins, Wayne, & Vadasy, 1998; Cohen, 1994; Johnson & Johnson, 1999; Madden & Salvin, 1995). Of the twenty-one teachers interviewed, one teacher satisfied Johnson and Johnson's standards, one teacher implemented Cohen's standards correctly, and five teachers accurately demonstrated Slavin's two-element model. Thirty three percent of the teachers in the study currently implemented one of the four models. The Antin, Jenkins, Wayne, and Vadasy (1998) study concluded that teachers claimed to be using of cooperative learning, when in application,

cooperative learning varied greatly in comparison with the research models. An alarming amount of survey subjects did not construct lessons in a manner consistent with scholars' models of cooperative learning. The teachers did not utilize many elements crucial to make a successful cooperative learning lesson, with individual accountability being the standard largely ignored by the teachers. Reasons for discrepancies between research-developers and teachers range from subjects feeling that the models were too restrictive to not fully understanding the need for each element. Clearly discrepancies of how to implement cooperative learning exist between research-developers and teachers.

In a similar study, Lopata, Miller, and Miller (2003) determined how often instructors use cooperative learning in their classroom compared to how often they prefer to use cooperative learning. One hundred and thirty elementary and middle school teachers from the western New York State participated in the study. Surveys were given to all participants, and were measured by MANOVA to examine the scores of actual and preferred use of cooperative learning. Results show that teachers' actual use of cooperative learning was significantly less than the amount they wish to employ. A reason for the discrepancy between actual and preferred use is that teachers are not properly educated on how to implement cooperative teaching. Few

teachers were exposed to material instructing them how to effectively use cooperative learning, which resulted in large gaps between the research-developers strategies for implementing cooperative learning and the manner teachers construct academic material. Thus, furthering the need for a brochure detailing how to create and implement a cooperative learning lesson.

Even though some of the studies (Armstrong-Messler, 1999; Calderon, Hertz-Lazarowitz, & Salvin, 1998; Vaughan, 2002) were very narrowly focused, the fact that cooperative learning proved to be beneficial on diverse participant samples, demonstrates the effectiveness of this method. Research proves that cooperative learning can be valuable for a variety of students, such as English Language Learners (Calderon, Hertz-Lazarowitz, & Salvin, 1998), students with diverse backgrounds (Vaughan, 2002), special needs students (Antil, Jenkins, and Wayne, 2003; Armstrong-Messler, 1999). In all cases, the treatment group with cooperative learning outperformed the control groups. Still, cooperative learning is not being implemented correctly, if at all in schools, thus furthering the need for material detailing how to create and implement a cooperative learning lesson.

Any cooperative learning material created for use in a classroom, must take into account that teachers have a demanding job. The ability to effectively use the limited time available is an ongoing issue with teachers. Therefore, the cooperative learning information must be presented in a brief yet practical manner that can be utilized in an actual classroom.

Chapter III Project Development

Research clearly indicates that cooperative learning helps students to successfully develop both academically and socially (Antil, Jenkins, & Wayne, 2003), yet this method is rarely utilized in the classroom (Lopata, Miller, & Miller, 2003). Not implementing cooperative learning in the classroom is a disservice to heterogeneous school systems around the globe. This field project outlines how to properly construct and implement an assignment within the confines of cooperative learning. A brochure was created that clearly defines the actions taken by the instructor and the students before, during, and after a cooperative learning lesson.

This field project was developed in four phases:

1. Problem Definition - What is the problem being solved and why is it important to formulate a solution to this problem?
2. Literature Review - A review of what current literature says about the effectiveness of cooperative learning, and reasons for it not being implemented correctly or being completely omitted from the school setting.
3. Cooperative Learning Brochure - Addresses frequently asked questions about cooperative learning and outlines the necessary steps for the teacher and student.

4. Group Assessment Sheet - Evaluation sheet for lower and upper elementary grade levels.

During the first two phases, the problem was clearly defined.

Overwhelming evidence supported cooperative learning as an effective teaching method (Armstrong- Messler, 1999; Stevens & Slavin, 1995).

Unfortunately cooperative learning has been implemented incorrectly, or completely omitted from classrooms (Antil, Jenkins, & Wayne, & Vadsy, 1998).

The third phase produced a brochure, detailing how to properly implement cooperative learning in the classroom. In this phase frequently asked questions about cooperative learning are answered thoroughly. Roles of both the teacher and students in a cooperative learning assignment are outlined for before, during, and after the assignment. Below is a description of each section of the brochure.

The first section titled “Frequently Asked Questions,” addressed major concerns about cooperative learning. This section invites teachers to expand their knowledge about cooperative learning. In the first question, cooperative learning is defined as a learning and teaching method where students work in heterogeneous groups to achieve a common goal. Based on the literature review, the second question describes how cooperative learning

has been proven by numerous educational research studies to be an effective learning and teaching method for students of various needs, backgrounds, and race. Details of how cooperative learning produces high achievement scores, test scores, and creates greater comprehension of all subject matter are answered by the last question.

The second section, titled “Before the Assignment,” describes the steps a teacher needs to take prior to producing a cooperative learning assignment. These steps include: finding a lesson that facilitates group work, creating clear outcome objectives, constructing heterogeneous groups, delegating roles to students, and creating a group and individual assessment. When these steps have been completed, the teacher may move on to the “During the Assignment” section of the brochure.

As students and teachers are engaged in the cooperative learning lesson, both should adhere to the roles specified in the section, “During the Assignment.” This is when cooperative learning is actively practiced by both the students and teacher. Teachers should serve as a resource, provide guidance to groups about appropriate behavior, further group’s process by asking open-ended questions, and provide rewards for group success. Throughout the cooperative learning assignment, students should work

collaboratively with other group members, perform in a manner that facilitates success for all members, and display team oriented social skills.

When the assignment is complete, the brochure directs teachers to the “After the Assignment” section. This section allows students and teachers to reflect and review the cooperative learning assignment. At this time the teachers’ roles include: review group and individual assessments, evaluate the final product, create a file for each students’ individual and group assessment, and consider regrouping students for future activities. The students are to evaluate their individual and group performance, in a manner specified by the teacher.

The fourth phase of the brochure is to develop a double-sided insert sample assessment sheet. The first side of the sheet is created for lower elementary students who may have limited reading and writing skills. To implement the group evaluation, the teacher would read the questions about the group work and have students circle the facial expression that corresponds with the students’ feelings towards the project. The upper elementary assessment sheet includes detailed questions about the group work, with space provided for students to elaborate on their experience during the cooperative learning assignment.

Every student should have positive learning experiences in both the academic and social aspects of education to foster continual success in the future. Cooperative learning is a teaching method that facilitates the growth of students' academic achievement and social cognitive maturity.

Chapter IV Project Evaluation, Conclusion, and Recommendations

With research providing evidence that cooperative learning is either rarely implemented correctly or not at all applied to lessons by instructors (Emmer & Gerwels, 2002), there is a need to develop a brochure to aide educators to successfully implement cooperative learning curriculum. The purpose of this project is to create a brochure that outlines how to employ cooperative learning, allowing teachers to construct academic material without difficulty. This project meets objectives to increase the use of cooperative learning in schools by developing the framework and identifying specific elements necessary to create a cooperative learning assignment.

During the fall semester of the 2005 school year, instructors will be given the brochure. Instructors differ in sex, age, grade level, teaching experience, and school. These teachers will use the brochure as a guide while constructing cooperative learning lesson plans. This brochure also contains guidelines for student and teacher behavior before, during, and after the cooperative learning assignment.

After teachers have utilized this brochure in their classrooms for a semester, an interview will be conducted to determine the effectiveness of the brochure. Interviews will inquire about the following topics:

- How often did teachers apply the information provided by the brochure while preparing educational material?
- Do teachers feel their curriculum has been helped or hindered by the information in the brochure?
- What affects did the content within the brochure have on student's academic achievement?
- What affects did the information in the brochure have on students' social skills?
- What positive changes have occurred since the use of the brochure, compared to prior group work?
- How has the information provided by the brochure influenced teachers' outlook of cooperative learning?
- What type of feedback on the cooperative learning process have the teachers received from parents and students?

After reviewing all of the research, it was evident that a cooperative learning brochure was needed. It is the responsibilities of the teacher to provide a favorable learning environment where all students have the ability to succeed academically. As the educational system continues to diversify, a learning method that fulfills the needs of all students is imperative.

Cooperative learning offers students the ability to maximize both individual

academic success as well as that of their peers (Fantuzzo, Ginsburg- Block, Miller, & Rohrbeck, 2003).

In addition, cooperative learning facilitates cognitive and social growth (Johnson & Johnson, 1999). While working in groups to achieve a common goal, students' gain social skills. Relationships, compromising, teamwork, and collaborating on ideas are some of the many characteristics students acquire while participating in a cooperative learning activity. In the ever-evolving world, most students will work in jobs that require constant interaction with coworkers. Cooperative learning allows students to thrive socially and academically not only in the school setting, but also in the work force.

The next logical step is to continue to implement lessons using the framework described in the cooperative learning brochure, evaluate their success, and upgrade and modify the brochure as needed. The brochure should be a document that is ever evolving. With a constantly changing classroom environment, teachers need to continually modify lesson plans to fit the requirements of a successful cooperative learning lesson.

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