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AUTHOR Lampe, Judith R.; Rooze, Gene E.
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ABSTRACT

This paper reports on a 12-week study of 131 students in eight fourth-grade social studies classrooms in two elementary schools in the southwestern United States with low socioeconomic, high minority populations. Although research has indicated that cooperative learning enhances student achievement, promotes self-esteem, and improves interpersonal relations, few studies have focused on cooperative learning in elementary social studies. There is a close affinity between the goals of citizenship education and social skills promoted by cooperative learning. This investigation determined differences between achievement and self-esteem of Hispanic fourth-graders who received instruction using cooperative learning or traditional instruction. Results indicated higher achievement favoring cooperative learning and higher self-esteem for males regardless of treatment. Making connections between social studies goals and cooperative learning offers a valuable tool for improving social studies education. Contains 26 references. (Author/EH)

ENHANCING SOCIAL STUDIES ACHIEVEMENT AMONG HISPANIC STUDENTS USING COOPERATIVE LEARNING WORK GROUPS

Judith R. Lampe
College of Education
Texas Tech University
Lubbock, Texas

Gene E. Rooze
College of Education
Texas Tech University
Lubbock, Texas

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Abstract

Although research has indicated that cooperative learning enhances student achievement, promotes self-esteem, and improves interpersonal relations, few studies have focused on cooperative learning in elementary social studies. There is a close affinity between the goals of citizenship education and social skills promoted by cooperative learning. This investigation determined differences between achievement and self-esteem of Hispanic fourth-graders who received instruction using cooperative learning or traditional instruction. Results indicated higher achievement favoring cooperative learning and higher self-esteem for males regardless of treatment. Making connections between social studies goals and cooperative learning offers a valuable tool for improving social studies education.

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During the past 15 years, research has indicated that cooperative learning groups enhance student achievement (Johnson & Johnson, 1989; Slavin, 1983; Webb, 1989). Peer interaction is central to the success of cooperative learning as it relates to cognitive understanding. Cognitive developmental theories such as Vygotsky's (1978) emphasize that intellectual growth is a dynamic social-interactive process. Active verbalization, especially when it involves explanation, often leads to cognitive restructuring and an increase in understanding. Comprehension is facilitated as learners, many of whom might normally "tune out" or refuse to speak out in a traditional setting, become actively involved in the learning process through group interaction. According to Stahl and Vansickle (1992), every cooperative learning strategy, when used appropriately, can enable students to move beyond the text, memorization of basic facts, and learning lower-level skills.

In addition to its academic benefits, cooperative learning has been found to promote self-esteem, interpersonal relations, and improved attitudes toward school and peers. In a competitively structured classroom, except for the few "winners" or students who succeed, self-esteem can suffer. Likewise, self-esteem and approval of classmates can be lower in individualistic than in cooperative learning situations (Johnson, Johnson, &

Maruyama, 1983). When competition is promoted, students may learn to value winning at all costs, and cooperation is discouraged (Conard, 1988). Although not opposed to all competition, advocates of cooperative learning oppose "inappropriate" competition (Johnson & Johnson, 1991). One cooperative learning model, Teams-Games-Tournament, builds a competitive phase into part of the instructional strategy (Stahl & VanSickle, 1992). "Inappropriate" competition, however, tends to widen the existing differences among students' academic knowledge and abilities, which in turn can widen negative perceptions of others on the basis of gender, race, or ethnicity (Stahl, 1992).

There is a close affinity to the goals of citizenship education and the social skills promoted by cooperative learning; this is of particular interest to social studies educators. The philosophy of cooperative learning promotes cooperation and collaboration so that students' energies can be channeled to accomplish positive academic, affective, and social interaction goals (Colomb, Chilcoat, & Stahl, 1992). Leming (1985) points out that students use important social skills while learning in a cooperative group setting. They learn essential content, achieve democratic goals, practice critical thinking, and develop interpersonal skills. The few empirical studies conducted on the use of cooperative learning in elementary social studies have produced mixed results (Child Development Project, 1988; Ross, 1988; Graybeal and Stodolsky, 1985; Sharan, Hertz-Lazarowitz, and Ackerman, 1980).

According to Lyman and Foyle (1991), students are often reluctant to associate with peers of different social, ethnic,

and economic backgrounds. Teacher-structured, heterogeneous cooperative learning groups are very different from peer-formed groups on the playground or in the lunchroom and homogeneous teacher-formed groups used for classroom instruction. Placing students in heterogeneous work groups promotes interaction and collaboration within a multicultural population. Glassman (1989) found that when compared to competitive and individualistic instructional approaches, cooperative learning produced greater positive effects on students' achievement; self-esteem; relationships among Hispanic, Anglo and black youngsters; and intergroup relationships.

Cooperative learning groups have also been found to equalize the status and respect of all group members, regardless of gender (Johnson, Johnson & Stanne, 1986; Glassman, 1989). Research by Klein (1985) revealed that competitively structured classrooms have the effect of favoring males or reinforcing sex role stereotypes that may limit opportunities for females. Studies in traditional classrooms have consistently shown that boys have more interactions with teachers than do girls (Brophy & Good, 1974; Cooper & Good, 1983) and that in our culture males are often socialized to be assertive and demanding whereas females are to be responsible and compliant. In a comprehensive study (Martinez & Dukes, 1991) on self-esteem and ethnicity among students in grades 7 through 12 (N=13,489), minorities and women generally reported lower levels of self-esteem than White males did. Within each race or ethnic category, satisfaction-with-self averages for females were lower than those for males. A particu-

larly interesting finding regarding satisfaction-with-self male Hispanics reported the highest satisfaction-with-self of any ethnic group, including White males.

Purpose

There have been numerous empirical studies that confirm cooperative learning to be an effective way to structure learning activities. However, there are surprisingly few that focus on social studies and even fewer that focus on social studies at the elementary level. Furthermore, no studies have investigated the effects of cooperative learning and interaction of gender on social studies and self-esteem at the fourth grade level in a predominantly Hispanic, low socioeconomic population. Thus, the purpose of the present study was to determine differences between the social studies achievement and self-esteem of Hispanic, economically disadvantaged, fourth-grade male and female students who participated in cooperative learning groups and those who received instruction using a traditional approach. Therefore, this study addressed the following questions:

A. Is there a difference in the social studies achievement of fourth-grade students according to treatment of cooperative learning or traditional instruction and according to gender across treatment groups?

B. Is there a difference in the self-esteem of fourth-grade students according to treatment of cooperative learning or traditional instruction and according to gender across treatment groups?

Method

Subjects

This twelve-week study was conducted in eight fourth-grade social studies classrooms (N=131) in two elementary schools in the Southwest with low socioeconomic, high minority populations. Four classrooms (two from each school) received the treatment of cooperative learning (n=63 with 29 males and 34 females), and four classrooms (two from each school) used the treatment of traditional, teacher directed instruction (n=68 with 32 males and 36 females). Ethnic distribution for the cooperative learning treatment group included 71% Hispanic, 12% Black, and 17% Anglo/other. For the traditional treatment group, 77% was Hispanic, 9% Black, and 14% Anglo/other.

Instruments

Because random assignment was not possible, we used pretest scores from a researcher-constructed social studies unit test and the Coopersmith Self-Esteem Inventory, School Form (Coopersmith, 1984), as covariates to determine equivalence of groups. Prior to the beginning of each unit, a researcher-constructed social studies pretest was administered. Then at the end of each unit, the same social studies test was given as a posttest to measure achievement in social studies. These criterion-referenced objective tests were developed by using the publisher's fourth-grade test databank as a source in an effort to increase content validity. In constructing the 30-item multiple choice tests, we included a variety of items which incorporated fact-recall, interpreting graphics (charts and maps), identifying cause and

effect, drawing conclusions, sequencing, and inferencing. These tests were piloted prior to the experiment and revealed a .78 Pearson product moment test-retest reliability coefficient and .79 Kuder Richardson Formula 20 reliability coefficient.

To measure self-esteem, the Coopersmith Self-Esteem Inventory, School Form, was administered both as a pretest and posttest, before and after the twelve-week treatment period. The school form consists of 50 items resulting in data for a Total Self Score and subscales of General Self, Social Self-Peers, Home-Parents, and School-Academic. Reliability coefficients for the Coopersmith Self-Esteem Inventory were reported by Kimball to be between .87 and .92 while the concurrent validity was reported to correlate .83 with the Hare Self-Esteem Scale (Mitchell, 1985).

Treatment Procedures

Both treatment groups studied the same content material on Texas history drawn from two fourth-grade Scott, Foresman social studies units entitled "Settling Our State" and "A Changing Texas" during the twelve-week period. During the treatment period, students in the cooperative learning classrooms were instructed by teachers who followed the guidelines of Johnson, Johnson, and Holubec (1990), also known as "Brown Book Training" for structuring heterogeneous cooperative learning groups. Teachers incorporated the basic elements of cooperative learning into the group experience: positive interdependence, face-to-face promotive interaction, individual accountability, social skill development, and group processing. Teachers acted as facilitators as they specified both the academic and social skill objectives, explained the tasks and goal structures,

assigned roles within the groups, described the procedures for the learning activity, and engaged in monitoring and group processing. Group interaction was evidenced by much student-student talking with students often sitting in groups on the floor as they worked on their mutual group goal together. Students took turns reading the social studies content to each other and then discussed it by asking questions, summarizing, and clarifying each other's understandings. Jigsaw "expert" groups and Group Investigation project groups were formed for some lessons as students worked together on their specified tasks. Examples of group activities included: (1) writing letters from a historical character's perspective; (2) developing and using flashcards on Texas history; (3) discussing controversial issues (Civil War and slavery); and (4) becoming "experts" on a certain aspect of Texas history in a specialized group and then teaching the content to another base group (Jigsaw strategy).

While the cooperative learning groups studied social studies content using group interaction, the traditional groups learned the same content but did so while being instructed in a whole-class, teacher-directed, textbook centered approach. Instead of discussing the material, helping each other, or developing projects in groups, students read the assigned reading material silently, completed worksheets independently at their seats, did individual reports on Texas history, watched filmstrips, or engaged in unilateral interaction with the teacher in response to teacher questions. Traditional classrooms were characterized by a quiet, orderly atmosphere with the students seated at their desks while teachers in these classrooms were seen as dispensers

of knowledge or providers of information. Observations of both treatment conditions were documented by field notes.

Data Analysis and Results

Data were analyzed using Analysis of Covariance in order to determine differences among groups. The dependent variables were the social studies achievement posttest and the Coopersmith Self-Esteem Inventory posttest. First, a 2 way ANCOVA was performed with social studies achievement as the dependent variable and the social studies pretest as the covariate. Another 2 way ANCOVA was then conducted with the Coopersmith Self-Esteem posttest as the dependent variable and the Coopersmith Self-Esteem pretest as the covariate. The independent variables for both analyses were treatment and gender. The treatment conditions were cooperative learning and traditional, teacher-directed instruction.

Insert Tables 1 and 2 about here

Means and standard deviations of raw scores for the social studies pretests and posttests are shown in Table 1. Table 2 reports the adjusted means after adjustment for the covariate, the social studies achievement pretest. Results of the ANCOVA revealed a significant main effect for treatment ($F(1,130) = 26.75$, $p.<.001$), as shown in Table 3, favoring cooperative

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Insert Tables 3, 4, 5, and 6 about here

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learning over traditional instruction; however, no significant effects were found for gender or for an interaction between treatment and gender on social studies achievement.

The raw score means and standard deviations for self-esteem, as displayed in Table 4, and the adjusted means in Table 5 report very similar scores for both treatment groups. Results for self-esteem, as shown in Table 6, revealed no main effect for treatment and no interaction between treatment and gender; however, a significant main effect for gender was revealed ($F(1, 142)=4.35$, $p<.039$) favoring males over females, regardless of treatment group.

Conclusions and Discussion

Achievement

From this study, it can be concluded that the cooperative learning group instructional approach is a more effective way to structure learning in fourth-grade social studies than traditional instruction. Moreover, the findings suggested that improved achievement for both males and females resulted from participation in cooperative learning groups. This points out the need for educators to provide more opportunities for all students to engage in cooperative learning groups in elementary social studies.

With little research having been conducted in social studies on cooperative learning in high minority, low socioeconomic populations, a major conclusion of this study is that the cooperative learning instructional approach can be more effective than the traditional approach for producing achievement gains in such a population. In an effort to meet the needs of an increasingly diverse, multicultural student population, cooperative learning provides social studies educators with an effective instructional approach for enhancing the success of our youth.

Self-esteem

Although cooperative learning groups have been found to equalize the status and respect of all group members regardless of gender, this study demonstrated no such equivalence. While differences in self-esteem were not attributable to the type of instructional approach used, results did indicate that differences in self-esteem were significantly related to one's gender with males outscoring females regardless of instructional approach. One contributing factor to this disparity may be different teacher perceptions and expectations which favor males as demonstrated in prior research. An alternative explanation to consider in recognizing the discrepancy between males' and females' self-esteem is the ethnicity factor. Males' higher self-esteem scores in the predominantly Hispanic population may possibly be attributed to different ethnic cultural expectations and socialization patterns. As noted earlier, satisfaction-with-self averages for females were lower than those for males within each race or ethnic group. Furthermore, male Hispanics reported the highest satisfaction-with-self of any ethnic group, including White males. Although this study's findings at first seemed disturbing in that no differences in self-esteem were attributable to participation in cooperative learning groups, it confirmed prior research on self-esteem among Hispanics.

In summary, cooperative learning provides a valuable instructional approach for social studies education. In addition, teachers working with Hispanic populations should consider cooperative learning in planning productive activities

for their students. Making connections between social studies goals and cooperative learning techniques may enhance the possibility of developing knowledgeable, responsible, and participating citizens for our pluralistic society.

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Table 1

MEANS AND STANDARD DEVIATIONS ON
ACHIEVEMENT PRETEST AND
POSTTEST BY TREATMENT
AND GENDER

	COOPERATIVE LEARNING			TRADITIONAL		
PRETEST	n	Mean	SD	n	Mean	SD
Males	29	25.207	6.662	32	21.750	5.292
Females	34	23.912	4.400	36	21.139	4.987
TOTAL	63	24.508	5.247	68	21.426	5.103
POSTTEST	n	Mean	SD	n	Mean	SD
Males	29	48.621	9.394	32	36.625	11.033
Females	34	46.647	8.981	36	36.556	10.358
TOTAL	63	47.556	9.152	68	36.588	10.600

Table 2

ADJUSTED AND OBSERVED MEANS ON
ACHIEVEMENT POSTTEST BY
TREATMENT GROUP
AND GENDER

GROUP/GENDER	N	ADJUSTED MEAN	OBSERVED MEAN
COOPERATIVE LEARNING TREATMENT			
Males	29	46.007	48.621
Females	34	45.568	46.647
Total Treatment	63	45.787	47.556
TRADITIONAL TREATMENT			
Males	32	38.109	36.625
Females	36	38.764	36.556
Total Treatment	68	38.437	36.588

Table 3

ANALYSIS OF COVARIANCE OF SOCIAL STUDIES ACHIEVEMENT

Source of Variation	Sum of Squares	df	Mean Square	F	Sig. of F
Covariates					
PRETEST	7460.391	1	7460.391	124.122	.000
Main Effects	1612.141	2	806.071	13.411	.000
TRTMT	1607.533	1	1607.533	26.745	.000
GENDER	.560	1	.560	.009	.923
2-Way Inter-Actions	9.713	1	9.713	.162	.688
TRTMT GENDER	9.713	1	9.713	.162	.688
Explained	9082.245	4	2270.561	37.776	.000
Residual	7573.282	126	60.105		
Total	16655.527	130	128.119		

143 cases were processed.
12 cases (8.4%) were missing.

Table 4

MEANS AND STANDARD DEVIATIONS ON SELF-ESTEEM PRETEST AND POSTTEST BY TREATMENT AND GENDER

	COOPERATIVE LEARNING			TRADITIONAL		
PRETEST	n	Mean	SD	n	Mean	SD
Males	34	58.29	15.13	33	60.36	12.92
Females	38	62.03	15.58	38	60.13	13.79
TOTAL	72	60.26	15.27	71	60.24	13.31
POSTTEST	n	Mean	SD	n	Mean	SD
Males	34	64.12	14.94	33	67.27	15.47
Females	38	63.63	17.78	38	61.21	14.82
TOTAL	72	63.86	16.27	71	64.03	15.32

Table 5

ADJUSTED AND OBSERVED MEANS ON
SELF-ESTEEM POSTTEST
BY TREATMENT GROUP
AND GENDER

GROUP/GENDER	N	ADJUSTED MEAN	OBSERVED MEAN
COOPERATIVE LEARNING TREATMENT			
Males	34	65.390	64.118
Females	38	62.417	63.632
Total Treatment	72	63.904	63.875
TRADITIONAL TREATMENT			
Males	33	67.166	67.273
Females	38	61.259	61.211
Total Treatment	71	64.213	64.242

Table 6

ANALYSIS OF COVARIANCE
OF SELF-ESTEEM

Source of Variation	Sum of Squares	df	Mean Square	F	Sig. of F
Covariates					
PRETEST	12799.866	1	12799.866	79.737	.000
Main Effects	698.880	2	349.440	2.177	.117
TRTMT	1.674	1	1.674	.010	.919
GENDER	697.680	1	697.680	4.346	.039
2-Way Interactions					
TRTMT GENDER	76.283	1	76.283	.475	.492
Explained	13575.028	4	3393.757	21.142	.000
Residual	22152.524	138	160.526		
Total	35727.552	142	251.602		

143 cases were processed.
0 cases (.0%) were missing.