

Snapshot #1

Cooperative Learning Independence High School

November 1987
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RESEARCH FINDINGS

The use of a cooperative learning approach in the classroom is supported by findings from the effective schools research. Identified in *EFFECTIVE SCHOOLING PRACTICES: A RESEARCH SYNTHESIS* (Northwest Regional Educational Laboratory, 1984), those research findings include:

At the CLASSROOM level:

1.2 THERE ARE HIGH EXPECTATIONS FOR STUDENT LEARNING.

1.3 STUDENTS ARE CAREFULLY ORIENTED TO LESSONS.

1.4 INSTRUCTION IS CLEAR AND FOCUSED.

1.5 LEARNING PROGRESS IS MONITORED CLOSELY.

1.9 INSTRUCTIONAL GROUPS FORMED IN THE CLASSROOM FIT INSTRUCTIONAL NEEDS.

SITUATION

Independence High School is located in San Jose, California, part of the East Side Union High School District. Of the 4,000 students in this large school, 30 percent are white, 30 percent are Hispanic, 30 percent are Asian and 10 percent are black. Thirtyfour percent of students were not born in the United States; and there are 41 languages represented in the school population.

CONTEXT

Four years ago, the principal of Independence High School requested that a group of three teachers attend an inservice session on cooperative learning. On their return, they were asked to make a presentation to the rest of the school faculty. These three then became the core of a growing group of teachers applying the principles and approaches of cooperative learning in high school classrooms.

The major elements of the cooperative learning approach they are using include:

1. Students are placed in heterogeneous learning groups of four or five. Groups are selected by the teacher to be diverse in terms of student performance level, sex, ethnicity, socioeconomic status and sometimes grade level.
2. There is a focus on establishing positive interdependence among members of the group, a

reason for their working together, e.g., a single grade given to all members of the group based on the success of their cooperatively completing assigned work.

3. Individual accountability is established. While there is a responsibility to the group, there is also an individual responsibility to learn the material. If all were to complete assignments together and receive the same grade for the group's work, for example, each might also be given an additional grade based on individual performance on a final test.
4. There is emphasis on the process of cooperative learning itself. The teacher announces the steps in the process at the beginning of the lesson and monitors the process in groups, intervening as necessary to keep students working in a cooperative fashion, and debriefs the process at the end of the cooperative learning activity.

For further information about the use of cooperative learning at Independence High School, contact Rebecca Wong, Independence High School, 1776 Educational Park Drive, San Jose, California 95133.

EXAMPLE: ALGEBRA 2

The teacher uses cooperative learning lessons approximately once every two weeks. This approach is useful because students in groups are more intensely on task than if they were checking in and out of a lecture, because it increases the individual attention students get in a peer tutoring situation, and because the students like it. Initially, students were uncomfortable with the use of the grouping approach, but most reservations have been overcome. In a debriefing exercise for a previous cooperative lesson, almost every student wrote that the grouping is a good way to learn while getting to know people in the class better.

The class includes 32 students in grades 10, 11 and 12. Class demographics reflect the school's diversity. As class begins, students are sitting in short rows of three or four desks arranged in a semi-circle facing the front of the room.

The teacher announces that the class will work in their pre-assigned learning groups today. This will be a review activity: on the homework handed in the day before, a number of students had difficulty with word problems dealing with time, distance and motion (if the train leaves Boston at 6 PM and is traveling at 60 miles per hour, etc.). The teacher then reviews the homework problems missed often by students in order to reteach the correct problem solving approach.

The teacher again announces that the remainder of the class will be in group activity, with each group working to complete a worksheet of 10 problems. Only one paper with the problems worked on it will be collected from each group, and group members are all responsible for finishing all the problems. Students are reminded that the teacher expects that everyone in each group will be talking to the others, that all will be helping each other understand, that they will be checking answers with one another and that they will be solving the problems together. There is clear understanding by all students about how the activity should proceed.

The students are then asked to move into their study teams, teams in which they have been working for the first few weeks of the term. These team groups have been assigned by the teacher with an eye to mixing students as thoroughly as possible. With very little disorder and in less than two minutes, the students have moved themselves, their belongings and their desks into small groups of four and are ready to work. Some students are out of class because of a test, but the remaining team members will work together without them. The desks are arranged in tight circles, following the standing rule that team members' desks must be touching during team work.

The teacher then asks students in each group to number off, one to four. All "twos" are asked to raise their hands and are assigned to be the "checker" in the group. These students will check with their teammates at two points during the solution of each problem, first when the initial approach is set up and then when the problem has been completed, to be sure that all students in the group are at the same point in getting the problems done. The person to the left of the checker is the group's

facilitator who is responsible for the smooth progress of the group.

The teacher then hands out the worksheet of 10 problems, one worksheet to each group facilitator. The announcement is made again that only one paper per group will be picked up and that all students in each group will be graded according to that one paper.

In the 45-minute class period, the review session and grouping adjustment takes a total of 14 minutes. For the next 25 minutes, students work in groups through the worksheet. In some groups the students work the problems individually, then compare and adjust their approaches and answers. In others, the whole group goes through each problem step by step. Where there are disagreements, students listen to one another and argue their rationales. In none of the eight groups is there dissension.

The teacher circulates around the room, observing students and obviously available for questions. Only once is the teacher asked to interfere, and that is when one group as a whole cannot resolve their disagreement on how to approach one of the problems. Because all student papers are the same, the teacher can quickly monitor students' progress and redirect those who are off the track.

At the end of the allotted time, the teacher asks that students hand in one paper from their group and move themselves and their desks back to the original positions in the room. Again, in a very orderly fashion, the students change the configuration of the room.

After they have been reorganized and papers collected, the teacher goes back over the collaborative team activity and group-by-group notes elements of the process that the students did well. In one group, students talked through a disagreement very well; in another there was a good job of checking going on; there was much improved communication happening in one group; good explanations in another; praise for the group that the teacher wasn't called until there was a full-group problem; one group did a good job of making sure all were in agreement on the answers.

As a final exercise in the remaining four minutes of the class period, students are asked to write a debrief of the collaborative activity. On a half sheet of paper, students are asked to grade their group on a scale of 1 to 5 (5 is the top) in terms of how well they worked together as a group and why. While they are doing this, the teacher writes the next day's assignment on the blackboard. As they finish their grading of the activity, the teacher reads off the assignment and the students write it down. The bell rings to signal the end of the class.

This publication is based on work sponsored wholly, or in part, by the Office of Educational Research and Improvement (OERI), U.S. Department of Education, under Contract Number 400-86-0006. The content of this publication does not necessarily reflect the views of OERI, the Department, or any other agency of the U.S. Government.

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