



## partner learning: peer tutoring can help individualization

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*Photo: Charlene Rothkopf.*

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*Described here is "a different mode of teaching that can contribute to individualized learning and can be adapted to personality and teaching-style preferences of most teachers."*

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The theme for this issue of *Educational Leadership* is "Individualized Instruction: Another Look." This article presents a view of individualized instruction using a different teaching mode called Partner Learning. Partner Learning can provide a one-to-one learning situation for students in any educational environment. The procedures can easily be modified to pair students working together on "individualized material," or to provide for individualized instruction for large groups progressing at a common rate for any subject. Research is reported here on results obtained at both the junior high school and the college level. I believe the process is appropriate

and valuable from fourth grade through college levels.

## Procedures

My own research with Partner Learning involved pairing students in undergraduate mathematics classes coupled with the lecture method.

The basic guidelines for establishing Partner Learning are simple, and can be modified according to teacher preferences.

The first day of school, students are given a pretest on the subject to be studied. Students are paired on the basis of their scores on the pretest. Students with high scores are paired with students with low scores and students with average scores are paired with students with average scores. This method of pairing is referred to as High with Low (H-L) and Average with Average (A-A).

After students are assigned partners, the teacher explains to the students that they may work with their partners any time they feel it will be an advantage to their learning. Usually, class sessions begin by allowing students time to discuss with their partners anything about their work that they do not understand. The amount of time needed for these "meeting-of-the-minds" sessions varies from one to ten minutes or more. This variation in time is due to numerous factors, chief of which appears to be the difficulty of the material. The teacher will learn to judge from the amount of activity among the students when to terminate the session. The teacher concludes the session by dealing with any questions that the students were unable to answer together.

Teachers continue with their preferred method of instruction for the remainder of the class meeting, with only two major changes:

- The students are allowed to discuss their subject with their partners whenever they think such discussion will be an advantage to learning the material that is being presented.

- The students are allowed some time in class to work on a question with their partners to discover if they understand the material being presented whenever the teacher thinks it will be an advantage (Smith, 1973).

The Partner Learning procedures in summary are:

1. Pretest;
2. Pair students;
3. Begin each class with "Talk to your partner";
4. Instructor answers questions;
5. Continue with your style of teaching;
6. Students may talk during class;
7. Work problem in class with partner.

These Partner Learning procedures may be modified according to each teacher's preferences. Regardless of the modifications, these basic concepts must be followed:

- A pretest or some objective method should be used to pair the students, unless you allow the students to choose their own partners;
- Students should be allowed some time in class to work together.

## Findings

The original research regarding values of Partner Learning was conducted for a period of one and one-half years during 1971 and 1972. Ten mathematics classes for elementary teachers at New Mexico State University and two mathematics classes for liberal arts students at the University of Texas at El Paso were used (Smith, 1973). Compared experimental and control classes used the same textbooks and had the same instructor. Five different instructors participated in the study.

## Content Learning

When six pairs of classes were compared for content evaluation change scores (post-test minus pretest scores), five of the Partner Learning

Table 1. Summary of Comparisons of Content Evaluation Change Scores for Partner Learning and Control Classes

Classes	Number of Comparisons	Partner Learning Classes	Control Classes
Total Classes	6	5 Larger (2 Significantly Larger)	1 Larger

Table 2. Summary of Comparisons of Content Evaluation Change Scores for Partner Learning and Control Subgroups

Sub-groups	Number of Comparisons	Partner Learning Classes	Control Classes
High Subgroups	3	3 Higher	
Average Subgroups	3	3 Higher (2 Significantly Higher)	
Low Subgroups	3	2 Higher (1 Significantly Higher)	1 Higher
Totals	9	8 Higher (3 Significantly Higher)	1 Higher

classes had higher change scores and two of the comparisons were significantly larger on a t test at the .05 level.

Many teachers are concerned that the higher ability students may not learn as well with Partner Learning as with some other method. The findings, however, indicate that the three subgroups of high, average, and low achievers all learned more content in Partner Learning classes than in the control classes.

### Affective Results

Students who participated in the Partner Learning classes like the method. Eighty-six percent of the students who were in Partner Learning classes indicated that they would choose Partner Learning rather than the usual situation if they were given a choice. They did not regard the open talking and interruptions as disadvantages. Student attitudes in regard to self-concept of mathematical ability, as well as mathematics in



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general, were favorably affected by Partner Learning.

The high with low (H-L) and average with average (A-A) method was the major one used for pairing students in this study. However, two other methods were used for pairing students: (a) high with average (H-A) and average with low (A-L), and (b) student choice. One conclusion of the study was that students in Partner Learning classes show improved attitude and content gain regardless of whether they were paired H-L and A-A, A-A and A-L, or by student choice.

The five teachers who participated in this study liked Partner Learning as a teaching method and all five teachers indicated that they planned to use some form of Partner Learning in the future.

### Junior High School Results

Ronald Prielipp (1975) researched Partner Learning, based on the guidelines that I have described, with 20 classes of junior high students in Eugene, Oregon. In general, his results were similar to mine, as his conclusions also tended to favor Partner Learning.

Partner Learning is a different mode of teaching that can contribute to individualized learning and can be adapted to the personality and teaching-style preferences of most teachers. It is not a panacea for all of our problems, but it is a step toward helping students learn more in a manner they enjoy. The procedures can be modified for various subject matters and for class size. The Smith study cited clearly indicates significant differences in both cognitive and affective changes favoring Partner Learning procedures, and favorable attitudes toward the method were shown by both students and teachers. [7]

### References

- Ronald W. Prielipp. "Partner Learning in Secondary School Mathematics." Unpublished doctoral dissertation, University of Oregon, Eugene, 1975.
- Clarence Corydon Smith, Jr. "Partner Learning and Its Effect on Achievement and Attitude Toward Mathematics Among Undergraduates." Unpublished doctoral dissertation, New Mexico State University at Las Cruces, 1973. Available on order through Xerox University Microfilms, Ann Arbor, Michigan.

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