Constructing Concepts In Mathematics: A New Instructional Strategy

Kelly S. Blosser

Indiana University - Purdue University Fort Wayne

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CONSTRUCTING CONCEPTS IN MATHEMATICS: A NEW INSTRUCTIONAL STRATEGY
Kelly S. Blosser
Sponsor: Patricia Sellers
School of Education

Research shows that students understand and can apply concepts of mathematics better if they are thinking and reasoning on their own. Students learn better if they are interested and are given the chance to explore, particularly when using math manipulatives. The purpose of this research was to determine whether students excelled and/or developed a greater depth of understanding of mathematical concepts and relationships when mathematics is presented in such a way as to ask that students do their own thinking. Whether or not this style of presenting mathematics is successful with students in the classroom depends to a great extent on how the students react to this new instructional strategy. The research was conducted by reading various articles relating to teaching mathematics in ways other than the traditional style. A “construct a concept” lesson plan on fractions was written and implemented in a first grade classroom. The students were developing the concept of what one-fourth is in relationship to the whole. Analysis of the lesson demonstrated that students understood the concept of one-fourth and were then able to apply their knowledge on an assessment that followed the lesson. Also, students were interested and active at all times during the lesson. These findings are useful to teachers for planning math lessons on introducing new math concepts.