THE EFFECTS OF THINKING MAPS ON STUDENT ACHIEVEMENT IN SELECTED NORTH CAROLINA ELEMENTARY AND MIDDLE SCHOOLS

A dissertation

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ABSTRACT

The Effects of Thinking Maps on Student Achievement

In Selected North Carolina Elementary and Middle Schools

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In this study the relationship between the use of Thinking Maps in instruction and student achievement in selected North Carolina elementary and middle schools was examined. Student achievement was determined by the North Carolina end-of-grade (EOG) tests in reading and mathematics.

Thinking Maps are a set of eight visual-verbal learning tools, each one based on a different but fundamental thinking process. They are designed to show relationships between ideas or concepts, consequently helping learners construct personal knowledge. The proponents of these maps contend their use will increase student understanding, even as determined by performance on standardized tests. The purpose of this study was to determine whether or not evidence could be found to support this contention.

Data were collected from six schools in North Carolina. All teachers at these schools had been trained in the use of Thinking Maps. The collection of data focused on the teachers and what each was able to achieve with his/her students in terms of

standardized test score gains before and after using Thinking Maps. Multiple analyses of these data and the data gathered from a teacher questionnaire were performed.

There were few significant relationships between the use of Thinking Maps and student performance as determined by EOG tests. Teachers using Thinking Maps in their teaching did not realize greater student achievement gains.

Numerous variables were analyzed to help explain these results. These results revealed a need for more in-depth professional development for teachers. They also seemed to indicate that teachers needed more time to perfect their use of the maps. Even though data exist indicating immediate gains in student achievement can be realized after using Thinking Maps, assessing the productivity of the maps after one year of use may not have provided an accurate indication of what they can produce in terms of student achievement. In addition, providing more extensive training for teachers to more tightly align the use of the maps with the curricula tested might have produced the expected achievement gains.

Considering the widespread use of Thinking Maps in North Carolina's schools and the fact that educators across the state seem to have accepted the maps as useful and productive teaching tools, the results of this study have certainly raised questions for further investigation.