THE EFFECT OF THINKING MAPS® INSTRUCTION
ON THE ACHIEVEMENT OF FOURTH-GRADE STUDENTS

by

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ABSTRACT

This quasi-experimental study investigated the effects of the Thinking Maps® program, a series of graphic organizers, on the achievement of fourth-grade students as measured by a standardized test. The researcher used a nonequivalent pretest-post test control group design to compare student achievement between fourth-grade students in two elementary schools within a school division. A total of 78 students participated in the study; 41 in two classes in the treatment group and 37 in the two classes in the control group. The treatment group received instruction in the Thinking Maps® program for seven months.

The instrument used to measure the dependent variables (reading, mathematics, and language) was the Stanford Achievement Test (Ninth Edition). Three four-way ANOVAs, with treatment and control, race, gender, and previous achievement level as independent variables were used to compare the students’ scaled scores on the post test. Interviews were conducted with the four teachers to collect data on the treatment and control conditions.

The statistical analyses performed on the post test-scaled scores of the fourth-grade students in the study indicated that there was no significant difference between the treatment and control on any of the variables included in this study. While the quantitative analyses could not validate the owner’s of Thinking Maps® program claims of improving student achievement as measured by standardized tests, the researcher provides some insight into teachers’ and students’ reactions to using these graphic organizers as tools for improving classroom instruction.
Dedication

This study is dedicated to two special people in my life, my wife and my mother. They taught me the meaning of trust, acceptance, and patience. For their unselfish gifts of love, I am truly grateful.
Acknowledgments

The researcher owes a debt of gratitude to a number of people who contributed to the completion of this study. Foremost among those who assisted the author in remaining on task is my wife, Colleen. Her understanding attitude toward the nature of the process and constant encouragement was instrumental in my ability to keep on track. She never complained about the time I spent on the study nor discouraged me in any way. Without her assistance I could not have persevered. This is another reason I love her so deeply.

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At first a pleasant voice on the telephone, then a smiling face when we arrived on campus, Paulette Gardner provided that needed assurance that things were going to be alright. If she was involved, you could believe that they would be. She made our transition to campus a pleasure.

All of the professors I encountered at Virginia Tech seemed to want to help us to achieve our goals. They made you feel important in class, remembered your name out of class, and took the time to inquire how all was going. That caring attitude contributed to my desire to work harder to become a part of their circle. I am glad that I did.

I would be remiss if I did not acknowledge the contribution of Sherwin Suddeth of Innovative Sciences, Inc. When I contacted him about conducting the study on Thinking Maps®, he graciously gave his approval and permission to use the copyrighted materials in the study. I appreciate his willingness to work with me in examining these graphic organizers in more detail.

Finally, I cannot say enough about five people who were there from start to finish, Dr. Niles, Dr. Mutter, Dr. Richards, Dr. Dawson, and Dr. Parks. Dr. Niles and Dr. Mutter allowed me to inconvenience them by agreeing to serve on my committee. Both of them provided

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direction and encouragement throughout the process. Dr. Mutter’s edits and advice were invaluable in helping to shape the final document.

Dr. Richards will always be in my mind a mentor. He encouraged me to pursue a brain-based learning topic from the beginning and remained in contact with me regarding brain-learning issues continuously. For his guiding influence I am forever grateful.

Dr. Dawson said yes when I asked her to co-chair with Dr. Richards. I chose her because she has a sense of who she is that is very refreshing. Her warm and unassuming style invited me to feel that I could work with her from the first time we spoke. I have enjoyed our association during the dissertation phase and truly appreciate how hard she worked to make sure I was making progress. Dr. Dawson’s positive attitude was always refreshing to hear as we discussed problems on the telephone. Without her believing in me, I could not have made it.

Dr. Park’s contribution to the completion of my dissertation is immeasurable while he is a stern taskmaster, he is capable of inspiring an immense amount of respect for the expertise he has in the field of education. Meeting with him on an individual basis provided me the opportunity to learn from someone whose wisdom and knowledge seems limitless. I trusted his advice impeccably and listened carefully to his recommendations. By implementing his suggestions, crafting the dissertation as he instructed, and following his guidelines, I found that what had seemed an insurmountable task became an exercise in allowing the master to show me the way. To Dr. David Parks, I owe a debt of gratitude that I will never be able to repay.
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