THE RETEACHING OF MATHEMATICS SKILLS TO FIFTH GRADE STUDENTS

by

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A DISSERTATION

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The scores of United States students on the Trends in International Mathematics and Science Study from 1995 to 2003 have shown little improvement at the fourth and eighth grade levels in overall results and a further decline in international comparative rankings. However, a more alarming statistic shows a decrease in U.S. scores between the fourth and eighth grade levels – indicating that a closer examination is needed, primarily on the instructional interventions utilized during these critical learning periods of upper elementary and middle school.

Reteaching and retesting is a phrase a local school district has adopted in its vernacular to ensure that no children are left behind in both instruction and opportunities to relearn instructional materials. However, there are wide ranges of strategies teachers throughout the district utilize that allow students to demonstrate a proficient level of mastery in the area of mathematics.

The purpose of this study is to examine fifth grade classrooms and develop an understanding of what reteaching is, what materials are utilized to improve student performance, and some of the barriers that could lead a student to need reteaching. Additionally, this study will examine the use of an online assessment tool, called EDU,
modified to deliver similar reteaching materials as the traditional fifth grade mathematics curriculum in order to observe strengths and weaknesses of online tools to improve learning.

Findings within this qualitative case study suggest that reteaching is not clearly defined and often a reactionary process after a student fails a particular objective. One location addressed reteaching from a preventative approach, seeming to provide a more positive learning environment for both teacher and students. Additionally, the use of EDU provided positive instructional interventions.
DEDICATION

To my loving wife, Wendy, to whom I treasure.
ACKNOWLEDGEMENTS

My deepest appreciation goes to Dr. David Brooks, my mentor, who taught me to pursue my passion, even when faced with the greatest adversity. To him, I have the deepest gratitude – for his vision and commitment in seeking the truth in learning. Without his guidance and encouragement, this would not have been possible.

To Dr. Fowler I owe a great deal of respect and gratitude. Your willingness to share with me and my first group of students the explorations of brain waves – highlighting how technology could engage students in meaningful activities, allowing me to expand my repertoire of teaching and begin to tap into the importance one’s creativity can add to the learning of mathematics.

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Finally, to all of those who shaped my academic pursuits – I thank you too.
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