An Evaluation of the Merit Reading Software Program in the Calhoun County, WV Middle/High School

Overview and Summary

The following is an overview and summary of the Marshall University Graduate College research study conducted at the Calhoun County Middle/High School in West Virginia during the winter and spring of 2003, at the request of Merit Software.

Research Study Genesis

Merit Software, a leading provider of educational software, commissioned consultants at the Marshall University Graduate College in South Charleston, West Virginia to conduct a quantitative research study utilizing their educational software programs in classrooms at the Calhoun County Middle/High School in West Virginia. The purpose was to evaluate the effects of Merit reading software on students in grades 6 and 8.

About Calhoun County Middle School

Calhoun County, West Virginia was selected as a site for this study primarily because it is a rural district where residents face economic, social and educational challenges. It also has a stable population base. Approximately 37% of children under the age of 18 are below the poverty level. A June 2003 report from *The Parkersburg News* cites county unemployment rates at 23%. Despite this, the school district administrators demonstrated a strong interest and initiative in adopting innovative ideas, including technology, to improve instruction.

How the Research Study Was Implemented

The experimental group consisted of 116 students in three 6th-grade and three 8th-grade reading/language arts classes. The control group consisted of 35 students in one 6th-grade and one 8th-grade class. All 6th and 8th grade students were either in the experimental or control group. Teachers at Calhoun voluntarily selected which classes would be in the experimental group and use the Merit Software programs. Merit trained consultants provided software instruction for the participating teachers. Control teachers received no training. Control students participated in regularly scheduled reading/language arts classes. Participating students received 6 hours of computer time using Merit Software over a four-week period. Any extra sessions were devoted to skills the student and the teacher agreed to work on.

Merit Software Programs Used in the Study

- *Accu-Reading*
- *Vocabulary Fitness*
- *Grammar Fitness*
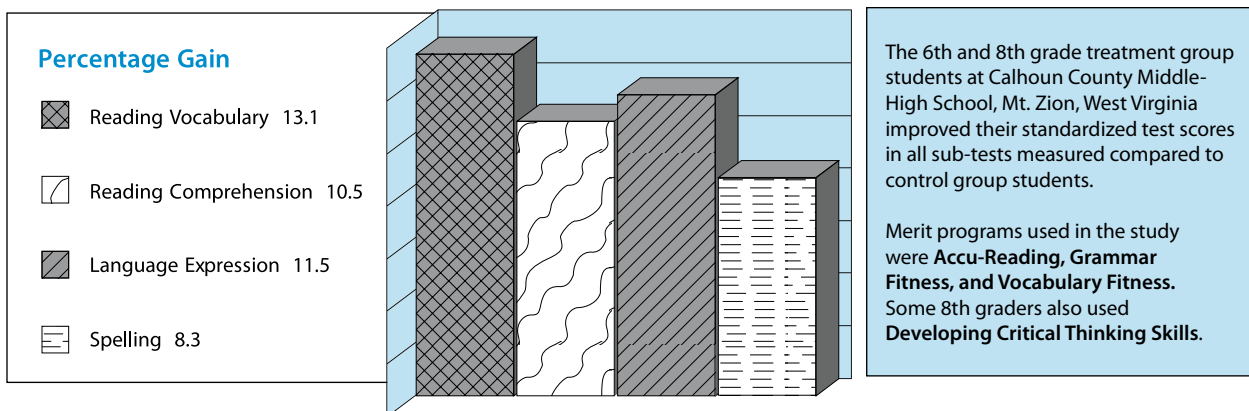- *Developing Critical Thinking Skills for Effective Reading* (8th grade only)

All Merit Software programs (grades 3 through 12) encourage students to proceed at their own pace while providing understandable and interesting content and opportunities to conceptualize material in different ways. All include straightforward instructions and clear and specific steps for working within a program's content. Scores are tracked by a record management system that allows teachers to follow students' progress. Skill areas include: reading comprehension, vocabulary, grammar, math, problem solving, writing and critical thinking.

Questions Used to Guide the Study

- Does Merit reading software complement and enhance the curriculum?
- What is the relevance to everyday teaching and its compatibility with the state's instructional goals and objectives?
- Did the Merit reading software affect students' achievement on the Stanford 9 Achievement Test (SAT-9)?
- What are the implications for use of Merit software in educational reform?

Results of the Study:

- Treatment group students increased achievement growth in their SAT-9 Reading Vocabulary score by 13.1% of the total sample mean and their Reading Comprehension score by 10.5%.
- Membership in the experimental group yielded an average gain of 11.1% for the SAT-9 Language Expression sub-test and an average gain of 8.3% for Spelling.

Percentage Gain

- Reading Vocabulary 13.1
- Reading Comprehension 10.5
- Language Expression 11.5
- Spelling 8.3

The 6th and 8th grade treatment group students at Calhoun County Middle-High School, Mt. Zion, West Virginia improved their standardized test scores in all sub-tests measured compared to control group students.

Merit programs used in the study were **Accu-Reading, Grammar Fitness, and Vocabulary Fitness.** Some 8th graders also used **Developing Critical Thinking Skills**.

The software cultivates progress in critical thinking and reading comprehension skills that would likely transfer to other academic areas. The opportunity was available for the researchers to measure progress in math and science; participating students yielded an average gain of 8.5% in the SAT-9 sub-test for Math Problem Solving, 13.6% in the Math Procedure sub-test, and 8.9% in the Science sub-test.

Scheduling permitted some treatment group students to use the software for longer than 6 hours. The sessions were devoted to using the programs to build the skills the student and the teacher agreed to work on. On average these students also showed statistically significant gains in SAT-9 Math Procedure, Language Expression, Language Mechanics, and Spelling.

Summation

While the Merit Software research study was relatively short-term and non-intensive, it yielded statistically significant and positive results, as shown by the increase in students' SAT-9 points after just six hours of use. These results show that Merit Software is a remarkably useful educational tool for teachers and administrators faced with meeting the demands of high-stakes testing with limited resources.

About Merit Software

Located in New York, Merit Software (www.meritsoftware.com) is a leading publisher of educational software. For over fifteen years, Merit Software has put an emphasis on providing the core competencies for students of grades 3-12 and up. Merit Software is a favorite of educators, students and parents nationwide and is currently being used in thousands of educational facilities. Designed with an emphasis on ease of use plus maximum instructional content, Merit Software offers a comprehensive suite of products targeted for educational excellence.