

# SCIENTIFIC RESEARCH

## QUASI-EXPERIMENTAL

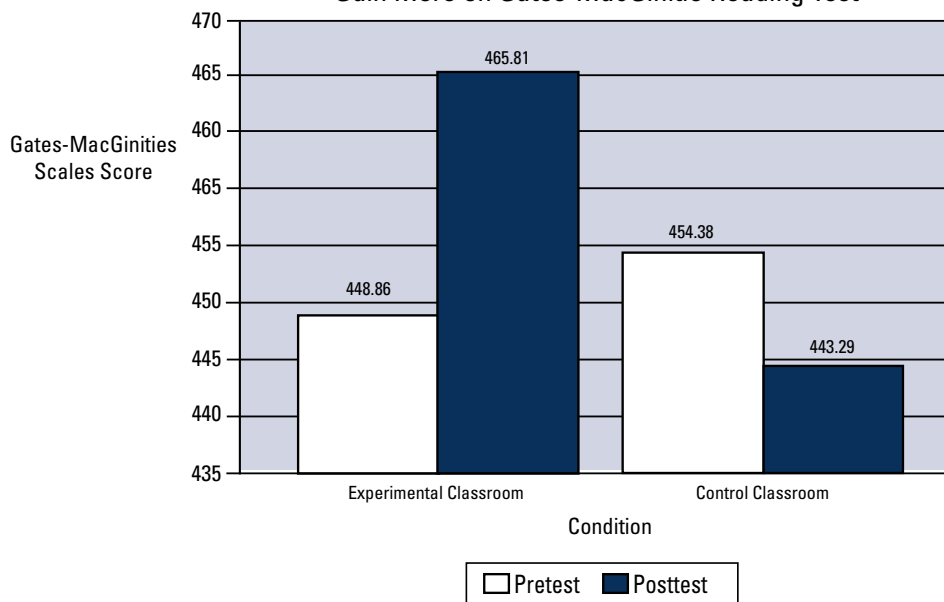
### Third-Grade Gates-MacGinitie Reading Test Scores Increase Significantly

Summarized from: Friesen, C. (2001). *Improving reading in grade three students*. Unpublished master's thesis, San Diego State University. Independent research conducted in 2001.

#### Introduction

The results of this quasi-experimental study indicate that the use of Accelerated Reader (AR)—a computerized, progress-monitoring system—and Renaissance Learning's research-based best classroom practices have a dramatic impact on student achievement.

Students Using Accelerated Reader Gain More on Gates-MacGinitie Reading Test



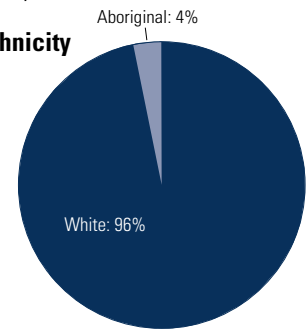
#### Main Finding

- After using Accelerated Reader and implementing Renaissance Learning's recommended best classroom practices for just nine weeks, student scale scores on the Gates-MacGinitie Reading Test increased an average of 16.95 points. During the same period, students in a comparable classroom experienced an 11.09 decrease in their average scale score.

#### School Profile

W.A. Fraser Elementary  
Students: 470, Grades 3-7  
Abbotsford, British Columbia

#### Race/Ethnicity



#### Educator Background

**Cameron T. Friesen** is Vice Principal and grade seven teacher at W.A. Fraser Elementary in Abbotsford, British Columbia. Friesen received his bachelor's degree in Psychology from Trinity Western University and a master's degree in Leadership and Curriculum from San Diego State University. Friesen was instrumental in bringing STAR Reading and Accelerated Reader to W.A. Fraser Elementary. He currently trains educators districtwide on how to successfully implement the two progress-monitoring tools. In 2003, he attained Renaissance Model Classroom Certification in Reading.

(more information on back)

## Study Description

The goal of this study was to determine whether student reading and literacy skills and attitudes toward reading would improve when Accelerated Reader and best classroom practices were incorporated into a reading classroom. In addition, the researcher conducting the study hoped to determine whether student attitudes about reading improved as a result of growth in reading ability.

At the beginning of a nine-week term, two academically and demographically similar classrooms consisting of 21 third-grade students each, from two different schools, were given the Gates-MacGinitie Reading Test<sup>1</sup> to assess their reading levels. The Elementary Reading Attitude Survey<sup>2</sup> was also administered to assess student attitudes toward reading.

During the term, students in the treatment classroom used Accelerated Reader and followed best practices, including: reading within their zone of proximal development<sup>3</sup>, devoting 60 minutes a day to reading, and setting individualized goals. To determine a student's zone of proximal development, STAR Reading was administered to the treatment students. STAR Reading is a reliable and valid, computer-adaptive assessment of general reading achievement.

Students in the control classroom were exposed to their normal reading curriculum which included silent reading, buddy reading, literature circles, shared reading with the whole class, and word studies including phonological awareness, spelling, and word patterns.

At the end of the term, posttest versions of the Gates-MacGinitie Reading Test and the Elementary Reading Attitude Survey were administered to both student groups. Test and survey results were analyzed based on average classroom growth for both measures.

## Results

Students in the treatment classroom experienced an average growth of 16.95 points in their Gates-MacGinitie scale score. This is a significantly greater gain ( $t=3.79$ ;  $p=.001$ ) than students in the control classroom, who experienced an 11.09-point decrease in their average reading and literacy scale score. (See graph on front.) This growth is largely attributed to the use of Accelerated Reader and the implementation of best classroom practices.

The researcher discovered that student attitudes underwent little change during the nine-week study period. This is most likely due to the brief amount of time that they were exposed to the progress-monitoring tool. In addition, the researcher discovered that the Elementary Reading Attitude Survey measured attitudes toward reading skills that were not practiced with Accelerated Reader (such as oral reading).

## Conclusion

The study revealed that Accelerated Reader and best classroom practices (such as reading at the appropriate level, providing sufficient time for reading practice and using formative feedback to guide instruction) have a significant, positive impact on reading and literacy achievement.

<sup>1</sup>MacGinitie, W. H., & MacGinitie, R. K. (1992). *Gates-MacGinitie Reading Test*, Second Canadian edition. Riverside Publishing Co.

<sup>2</sup>McKenna, M., & Kear, D. (1990, May). Measuring attitude toward reading: A new tool for teachers. *The Reading Teacher*, 43(9), 626-639.

<sup>3</sup>The zone of proximal development (ZPD) is a student's appropriate reading range. Reading within the proper ZPD allows a student to be challenged without becoming frustrated, and therefore leads to optimum reading growth.



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