



New Century Education

SCIENTIFIC RESEARCH UPDATE

Curriculum: Reading

Student Population: Elementary Schools, Economically Disadvantaged,

State: Florida

Years: 2003-2004

Elementary Students Who Used New Century's Reading Intervention Outperformed Those Who Used it Less by Statistically Significant and Large Margins in a Randomized/Controlled Study

RESEARCH SUMMARY

Location: Elementary Schools, Okaloosa County School District, Florida.

Targeted Student Population: 3rd and 4th grade students. The study included 387 3rd and 4th graders, distributed across two schools and 17 teachers. Due to mobility and the exclusion of special education students from the analysis, the sample size was reduced to 296 students (145 in 3rd grade, and 151 in 4th grade). Of these, 47.3% were in the experimental condition and 52.7% were in the control condition.

Student Demographics: Caucasians (71.8%), Hispanics (3.6%), African Americans (11.1%). 40.3% of students participated in free and reduced lunch programs.

Research Design: This experiment was a 2 (condition: experimental v. control) X 2 (grade: 3rd v. 4th) X 2 (schools: A v. B) independent groups design. Teachers were randomly assigned to either the experimental or the control condition after being stratified by grade and school. Because these schools assign students to teachers randomly, it was reasonable to assign the unit of analysis to the student. Control students were to have 30 minutes per week exposure to the New Century Reading/Language Arts curriculum, and experimental students were to have 90 minutes per week exposure to this program. In all other ways, the two groups were to be treated similarly.

Assessment Instruments: Florida Comprehensive Assessment Test (FCAT), a criterion referenced test, and Gates MacGinitie, an independent diagnostic reading test.

Results: FCAT: There was little difference between grades in usage of New Century curriculum among control students. However, among experimental students, usage among 3rd grade was much higher (more than three times) than among their 4th grade counterparts (see figure 1 below). Among 145 3rd graders, where there was a large difference between experimental and control student usage, experimental students (Mean score = 1596.9) outperformed control students (Mean score = 1478.7) by a statistically significant and substantial margin ($p < .05$,



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Cohen's $d=.35$) (see Figure 2 below). Among 151 4th grade students, where there were smaller differences between experimental and control student usage of the New Century program, there was no evidence that use of New Century mediated the relationship between condition and FCAT scores.

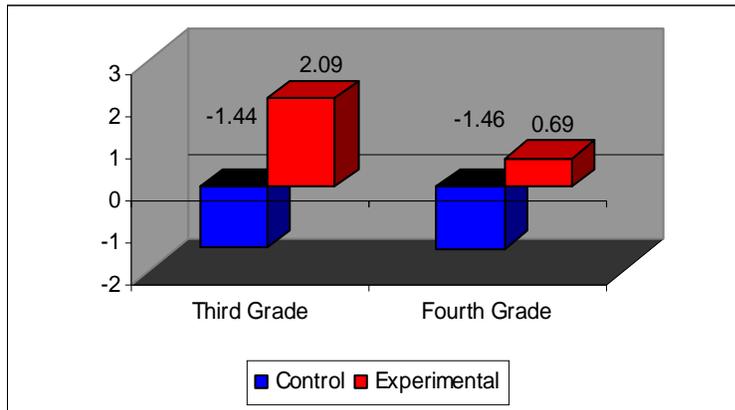


Figure 1: New Century Usage in Standard Units by Grade and Condition

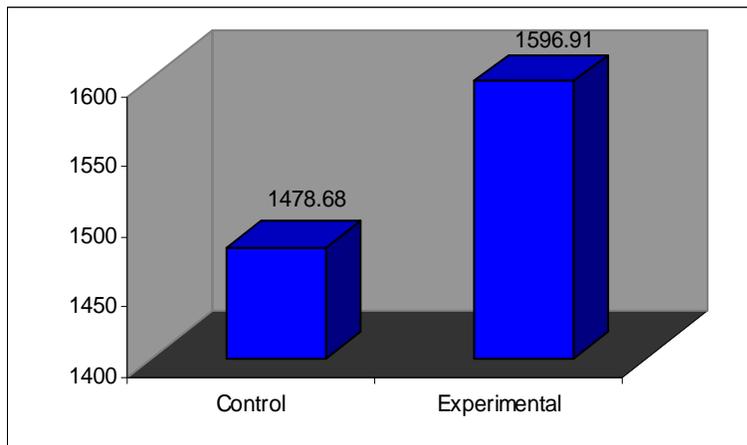


Figure 2: The Mean Difference in Condition on 3rd Grade FCAT Scores

Consistent outcomes were observed when the Gates MacGinitie results were analyzed. Specifically, results indicated that the extent to which the New Century software was used correlated positively, and at accepted levels of statistical significance, with change in Gates-MacGinitie examination performance.

Report: *New Century Education Corporation, Northern Florida Evaluation, Academic Year 2003-2004.* **Authors:** Cometrika, Inc., Franklin J. Boster, Ph.D., and Renee Strom, Ph.D.

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