2014

Public Affairs Research Council of Alabama

Joe Adams, Ph.D.

ANALYSIS OF LTS *KID'S COLLEGE* ARMT RESULTS FOR 2011-2012

Based on Research Conducted by the Public Affairs Research Council of Alabama

The Public Affairs Research Council of Alabama examined test results for the percent of students rated proficient on the Alabama Reading and Math Test (ARMT) for the 2011-2012 school year. The initial analysis examined 20 schools with the most users of Kid's College computer adaptive instructional systems. Each school was then matched with the most demographically similar school to produce a control group that did not use Kid's College. This process produced 20 matched pairs, or 40 schools in all, for comparison. The results for the 2011-2012 school year are discussed in this descriptive study. Reported here are comparisons on major subgroups reported by the Alabama State Department of Education as part of their accountability requirements for No Child Left Behind. These comparisons include grade level performance on the ARMT for All Students, Black Students, White Students, and Poverty Students (defined by eligibility for free or reduced price lunches). In each analysis the mean student ARMT scores for the schools in which students worked in Kid's College were compared with the mean student ARMT scores for schools in which students did not have access to Kid's College.

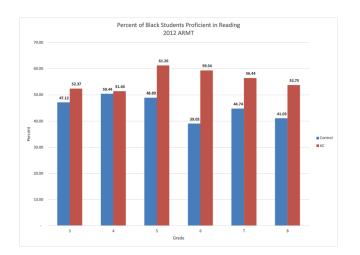
Published by LTS, February 2014

Overview

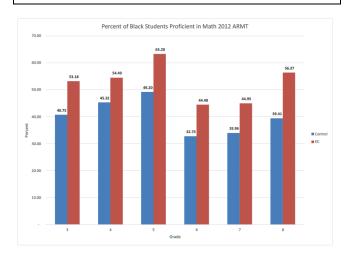
When comparing similar schools across grades 3 through 8, based on the percentage of students at or above the proficiency cut score on the Alabama Reading and Mathematics Test (ARMT), the benefits to students working in *Kid's College* is clear. For all students, the percentage of students at or above the proficiency cut score in at least half the grades studied were higher than in the control group. In particular, Black Students, White Students and Poverty Students, when disaggregated from the "All" category, showed marked benefits from working in *Kid's College*. The ability to boost the proficiency levels of children of poverty and both Black and White students through having them work, play and learn in *Kid's College* suggests that making this supplemental tool available for students who are struggling and not reaching proficiency is a sensible and empirically-supported action.

Summary Results: "Black Students" in Alabama

Percent (%) More "Black Students"
At or Above Proficiency on ARMT Reading
When Working in *Kid's College*10.55%



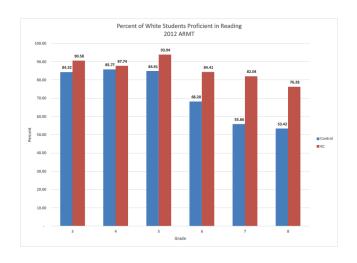
Percent (%) More "Black Students"
At or Above Proficiency on ARMT Mathematics
When Working in *Kid's College*12.56%



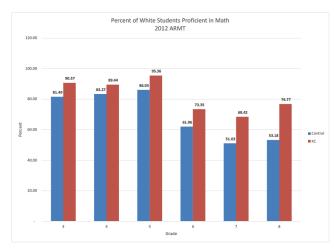
Summary Results: "White Students" in Alabama

Percent (%) More "White Students" At or Above Proficiency on ARMT Reading When Working in *Kid's College*

13.75%



Percent (%) More "White Students"
At or Above Proficiency on ARMT Mathematics
When Working in *Kid's College*12.81%

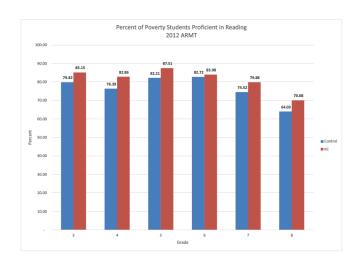


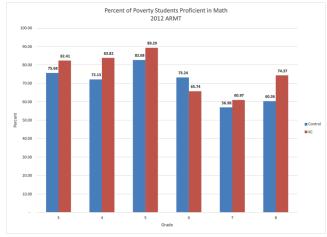
Summary Results: "Poverty Students" in Alabama

Percent (%) More "Poverty Students" At or Above Proficiency on ARMT Reading When Working in *Kid's College*

4.96%

Percent (%) More "Poverty Students"
At or Above Proficiency on ARMT Mathematics
When Working in *Kid's College*5.92%

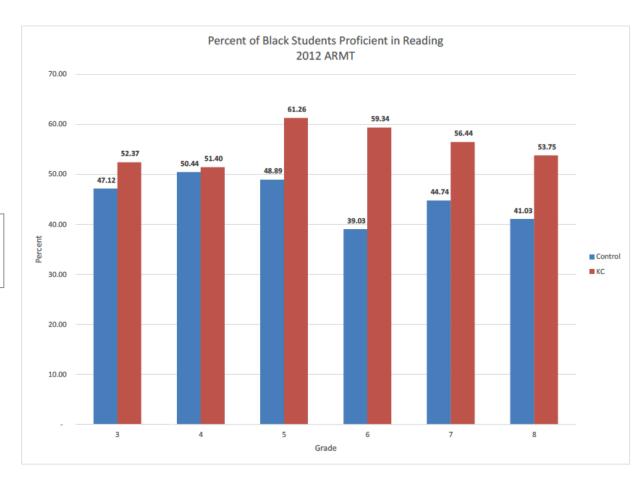




A Deeper Dive: "Black Students" in Alabama

As displayed in Figure 1, for the "Black Student" category, comparing the students in *Kid's College* with the control group, students in all grades 3, 4, 5, 6, 7 and 8 benefitted from time in *Kid's College* as measured on the ARMT in Reading. For "Black Students," the mean percent of students at or above the proficiency cut score on the ARMT Reading Test was between <u>.96</u> and <u>20.31</u> percent higher than the control group. The mean difference is <u>10.55</u> percent more Black students at or above the proficiency cut score for students working in *Kid's College* compared to the control group.

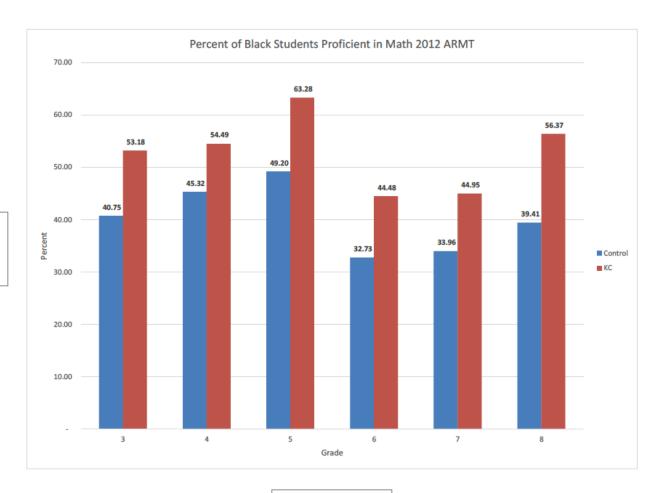
<u>Figure 1:</u> Percent of Black Students At or Above Proficiency on the Alabama Reading Test for Matched Schools by Grade Level



Percent At or Above Proficiency

For the "Black Student" category, comparing the students in *Kid's College* with the control group, students in all grades 3, 4, 5, 6, 7 and 8 benefitted from time in *Kid's College* as measured on the ARMT in Mathematics. For "Black Students," the mean percent of students at or above the proficiency cut score on the ARMT Mathematics Test was between 9.17 and 16.96 percent higher than the control group. The mean difference is 12.56 percent more students at or above the proficiency cut score for students working in *Kid's College*, compared to the control group.

<u>Figure 2:</u> Percent of Black Students At or Above Proficiency on the Alabama Mathematics Test for Matched Schools by Grade Level

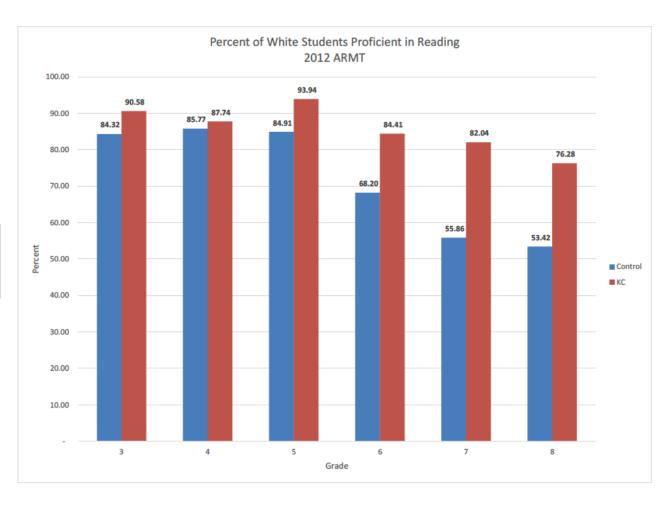


Percent At or Above Proficiency

A Deeper Dive: "White Students" in Alabama

As displayed in Figure 3, for the "White Student" category, comparing the students in *Kid's College* with the control group, students in grades 3, 4, 5, 6, 7 and 8 benefitted from time in *Kid's College* as measured on the ARMT in Reading. For "White Students," the mean percent of students at or above the proficiency cut score on the ARMT Reading Test was between 1.97 and 26.18 percent higher than the control group. The mean difference is 13.75 percent more students at or above the proficiency cut score for students working in *Kid's College*, compared to the control group.

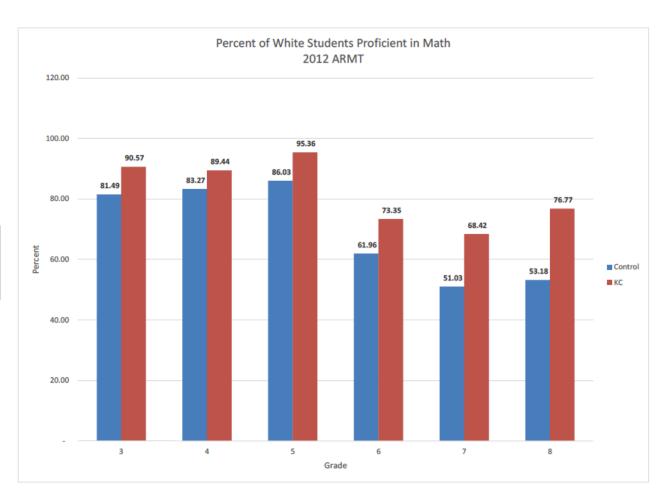
Figure 3: Percent of White Students At or Above Proficiency on the Alabama Reading Test for Matched Schools by Grade Level



Percent At or Above Proficiency

As displayed in Figure 4, for the "White Student" category, comparing the students in *Kid's College* with the control group, students in grades 3, 4, 5, 6, 7 and 8 benefitted from time in *Kid's College* as measured on the ARMT in Mathematics. For "White Students," the mean percent of students at or above the proficiency cut score on the ARMT Mathematics Test was between <u>6.07</u> and <u>23.59</u> percent higher than the control group. The mean difference is <u>12.81</u> percent more students at or above the proficiency cut score for students working in *Kid's College*, compared to the control group.

Figure 4: Percent of White Students At or Above Proficiency on the Alabama Mathematics Test for Matched Schools by Grade Level

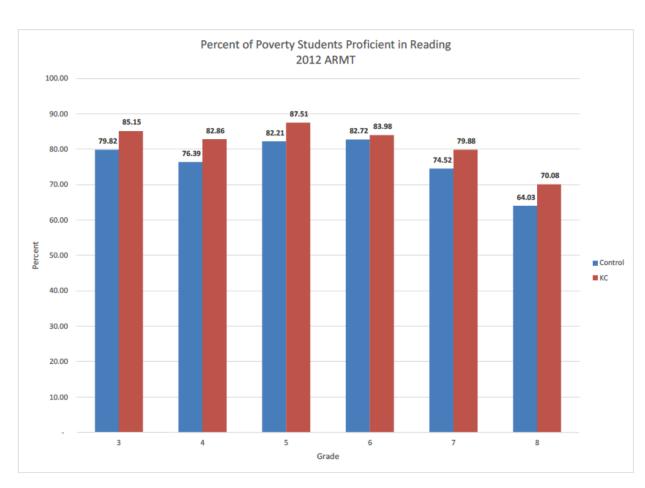


Percent At or Above Proficiency

A Deeper Dive: "Poverty Students" in Alabama

For students in poverty, the trends are compelling for both Reading and Mathematics. As displayed in Figure 5, comparing poor students in *Kid's College* with the control group, students in grades 3 through 8 benefitted from time in *Kid's College* as measured on the ARMT in Reading. For "Poor Students," the mean percent of students at or above the proficiency cut score on the ARMT Reading Test was between 1.26 and 6.47 percent higher than the control group. The mean difference is 4.96 percent more poor students at or above the proficiency cut score when working in *Kid's College*, compared to the control group.

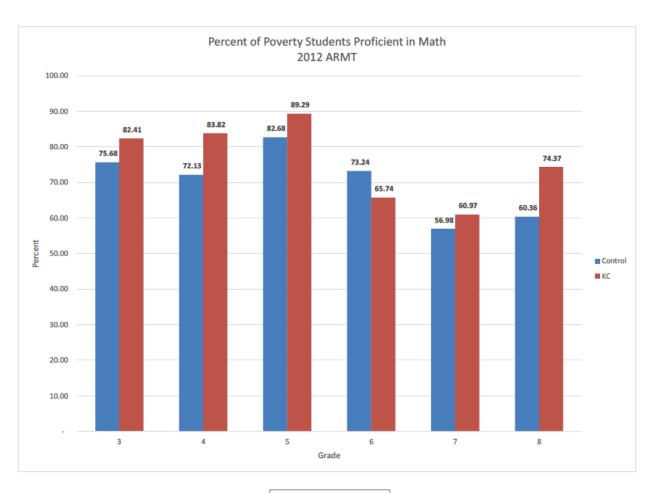
<u>Figure 5:</u> Percent of Poor Students At or Above Proficiency on the Alabama Reading Test for Matched Schools by Grade Level



Percent At or Above Proficiency

For the "Poverty Students" category, comparing the students in *Kid's College* with the control group, students in grades 3, 4, 5, 7 and 8 benefitted from time in *Kid's College* as measured on the ARMT in Mathematics. For "Poverty Students," the mean percent of students at or above the proficiency cut score on the ARMT Mathematics Test was between 3.99 and 14.01 percent higher than the control group. The mean difference is 5.92 percent more poverty students at or above the proficiency cut score when working in *Kid's College*, compared to the control group.

<u>Figure 6:</u> Percent of Poverty Students At or Above Proficiency on the Alabama Mathematics Test for Matched Schools by Grade Level

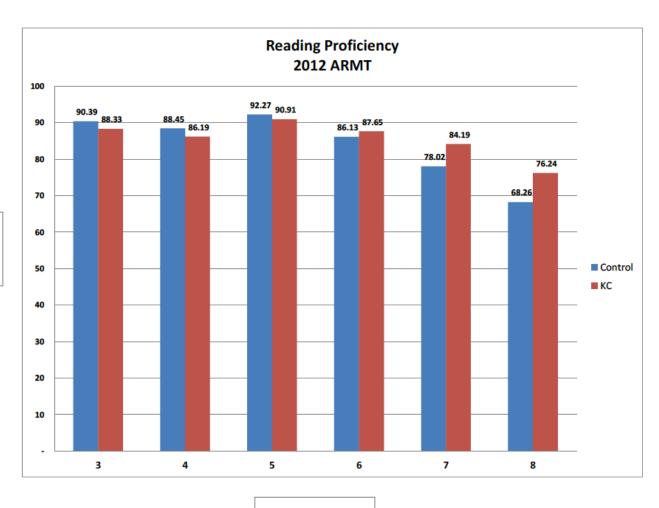


Percent At or Above Proficiency

"All Students": Reading

As displayed in Figure 7, for the "All Student" category, comparing the students in *Kid's College* with the control group, students in grades 3 through 5 did not benefit from time in *Kid's College* as measured on the ARMT in Reading. But students in grades 6, 7 and 8 did benefit. For "All Students," the mean percent of students in grades 6, 7 and 8 at or above the proficiency cut score on the ARMT Reading Test was between 1.5 and 7.98 percent higher than the control group. The mean difference is 1.66 percent more students at or above the proficiency cut score for students working in *Kid's College*, compared to the control group. Directionally, the benefit of *Kid's College* for Reading achievement is stronger at the middle school years when reading instruction becomes more difficult for struggling students. One hypothesis is that the learning challenges for more students in the area of Reading begin to surface as they approach middle school.

<u>Figure 7:</u> Percent of All Students At or Above Proficiency on the Alabama Reading Test for Matched Schools by Grade Level

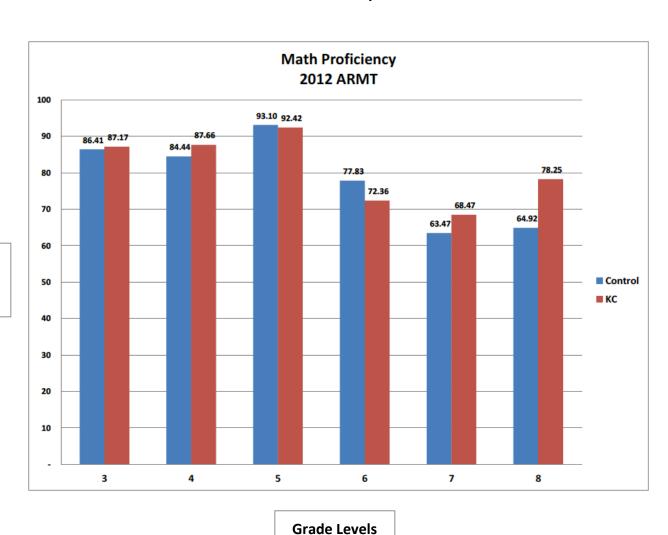


Percent At or Above Proficiency

"All Students": Mathematics

The trend for Mathematics is different than for Reading. As displayed in Figure 8, for the "All Students" category, comparing the students in *Kid's College* with the control group, students in grades 5 and 6 did not benefit from time in *Kid's College* as measured on the ARMT in Mathematics. But students in grades 3, 4, 7 and 8 did. For "All Students," the mean percent of students in grades 3, 4, 7 and 8 at or above the proficiency cut score on the ARMT Mathematics Test was between .76 and 13.33 percent higher than the control group. The mean difference is 2.69 percent more students at or above the proficiency cut score for students working in *Kid's College*, compared to the control group.

<u>Figure 8:</u> Percent of All Students At or Above Proficiency on the Alabama Mathematics Test for Matched Schools by Grade Level



Percent At or Above Proficiency