

With the support of two prominent Gary businessmen¹, Bailly Academy in Gary, Indiana, conducted a pilot implementation of BrainWare Safari (BWS) in the spring semester of the 2009-2010 school year. BWS was used in eight classes. Other classes serve as comparison groups. Performance on the Renaissance Learning STAR Reading and Math Assessments was used to evaluate academic progress. All students took the STAR tests in January and April. Teacher responses to a behavioral survey were used to evaluate cognitive growth.

Recommended usage of BWS is 3 to 5 times per week over 12 weeks. Usage at Bailly Academy was outstanding for most classes, at 3 to 3.5 times per week over 13-16 weeks for grades 2 through 4 and the Special Needs class. Usage in the 5th and 6th Grades was somewhat lower, at 1.7 to 2.4 times per week over 16 weeks. The number of sessions completed was consistent with other studies for this level of usage.

Previous research has shown the connection between the development of cognitive skills and academic progress. Academic progress typically lags cognitive growth and the rate of gain in academic achievement is highly individual. Some students experience an immediate lift in academic scores, while others may have significant catching-up to do because they need to learn or re-learn material they missed. The results of the Bailly Academy pilot show strong evidence of cognitive growth as well as an impact on academic achievement.

Cognitive Growth

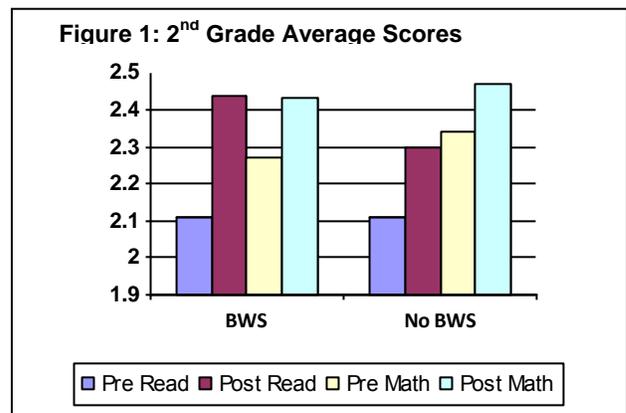
Cognitive growth was evaluated by the teachers in the classrooms that used BrainWare Safari. The teachers observed improvement in at least half of the classes on all parameters measured. Improvement in at least 75% of the classes was observed on the following measures:

- Ability to complete work
- Making fewer careless errors
- Desire to perform or put in effort
- Ability to recall of information for tests
- Attention span and focus
- Self-confidence
- Memory
- Attention to details

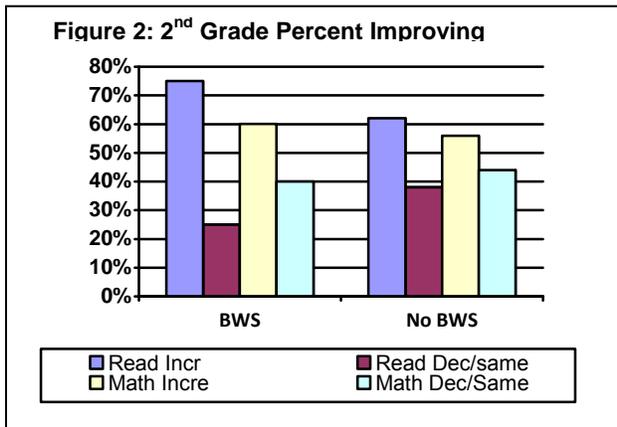
Academic Growth

Grade 2

The academic impact of BrainWare Safari use on students in Grade 2 is seen in the clear difference in their reading scores. BWS students improved their reading scores on average by 3 months compared to 1.7 months for the non-BWS students. (Figure 1) Moreover, a greater percentage of students in the BWS group increased their reading scores – 75% vs. 62%. Performance on the math tests was comparable between the groups. (Figure 2)

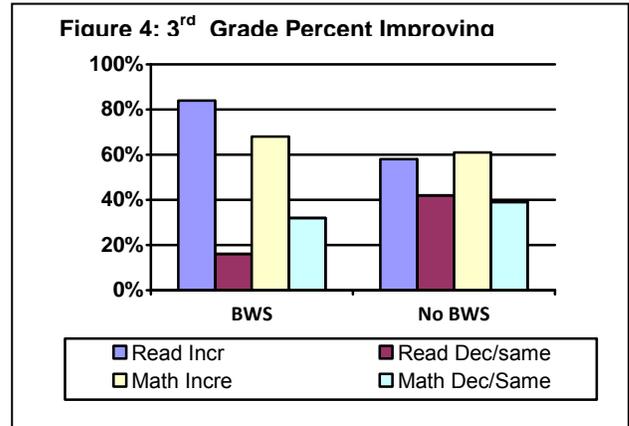
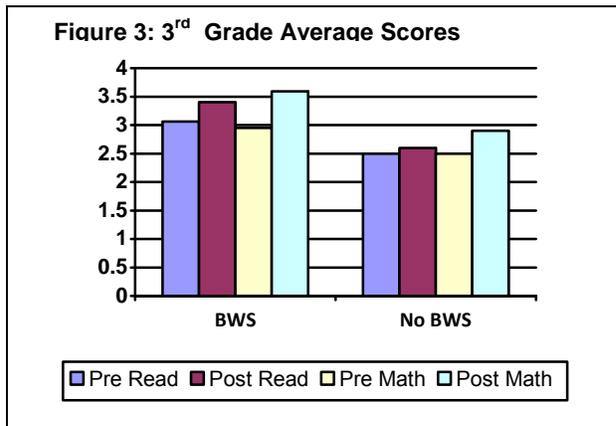


¹ Kelvin Pennington, Chairman of Concord Family Services, and Mamon Powers, Jr., President of Powers & Sons Construction.



Grade 3

The impact of BrainWare Safari on the academic performance of students in Grade 3 is observed in both reading and math. BWS students improved their reading scores on average by 3 months compared to 1 month for the non-BWS students. Improvement on the math assessment was 6 months for the BWS students, on average, compared to 4 months for the non-BWS students. (Figure 3) As was seen for Grade 2, more of the Grade 3 BWS students improved their reading scores, with 84% of the BWS students improving vs. 58% of the non-BWS students. 68% of the BWS students improved their math scores vs. 61% of the non-BWS students. (Figure 4)



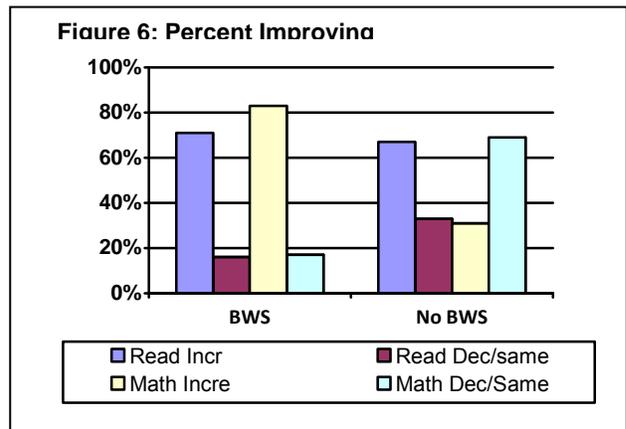
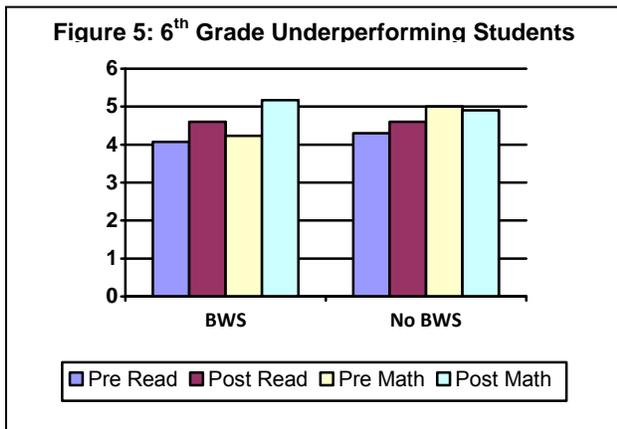
Grade 5²

Students in Grade 5 were behind grade expectation in reading by at least 1 year on average. When students are significantly behind, the evidence of the impact of BrainWare Safari is often seen in the growth experienced by individual students. Of the 17 students who increased their reading scores by 7 months or more, 11 had used BrainWare Safari. The top three increases (22 to 27 months) were all BWS students. Of the 15 students who increased their math scores by 11 months or more, 11 were BWS students. Thus, BrainWare Safari played a role in helping these students dramatically accelerate their progress and to catch up to and surpass grade-level expectation.

² No conclusions could be drawn from an analysis of the results of Grade 4. The class that did work with BrainWare had notable cognitive improvement by teacher observation, but the academic outcome was not evident in this grade.

Grade 6

The impact of BrainWare Safari in Grade 6 is seen in students who were performing below grade-level expectations. Figure 5 shows the test score results for the students who were performing below grade level in both reading and math. These underperforming BWS students improved their reading scores on average by 5 months, compared to 3 months for the non-BWS students, and their math scores by an average of 8 months vs. no change for the non-BWS students. It was also true that more of the BWS students improved their scores – 71% compared to 67% in reading, and 83% compared to 17% in math. (Figure 6) Of the 22 students who increased their reading scores by 9 months or more, 11 were BWS students. Of the 18 students who increased their math scores by 9 months or more, 12 were BWS students.



Special Needs

Special needs students often perform behind grade-level expectations, usually progress at a slower pace and sometimes show no progress on standardized tests over the course of a school year. All six of the students evaluated in this group were performing significantly behind grade-level norms. With the help of BrainWare Safari, four of the six students improved their reading scores. One student, a 6th grader performing at a 3rd grade level improved his/her reading scores by almost two full years. A 4th grader who pre-tested in math as a 1st grader raised his/her performance to the 2nd grade level.

Conclusions and Next Steps

Students at Bailly Academy who used BrainWare Safari experienced significant improvement in a broad range of measures related to cognitive functioning. The students’ improved level of cognitive functioning has already begun to impact their academic performance, driving greater gains in academic scores, especially for students performing below grade-level, as well as increased percentages of students improving their performance.

Because of the individual nature of cognitive development and its translation into academic performance, and because the effects are cumulative over time, continued growth is expected to be observed for these students in the 2010-2011 school year. Ongoing monitoring of student progress in the next school year is recommended.

Expanding BrainWare Safari use to the students at Bailly who did not have an opportunity to use it in the pilot could lead to significant overall improvements in their academic success. Furthermore, as one teacher at Bailly Academy summed up her views of the pilot experience, “All students in the Gary School Corporation will benefit from using BrainWare.”