Research Notes

The Sam Learning software does provide several features that would be helpful in monitoring students' progress. These monitoring capabilities would allow RTI coaches and teaches to follow students' progress in an intervention. The software keeps track of student's progress which in turn would allow teachers, administrators and districts to print reports on the progress of their students especially their tier 2 and tier 3 students. The lessons seemed to be design to meet RTI intervention models because each lesson is design to be completed in 10 – 15 minutes and to provide students with immediate positive feedback.   The lessons were created with scaffold pedagogy and this method of teaching allows students to get the help they need regardless of how far above or below grade level they are on a specific subject or multiple subjects. Furthermore, the software design allows students to learn in a non-threatening environment.

However, some statements made by the authors lack data to support their claims, one such claim made by the authors was a school administrator thought the number of students not graduating dropped by half once the Sam Learning System was introduced to his school. The authors also tout the software's capacity to match the student's academic ability with problems ranging from foundation, intermediate and advance. However, descriptions of these levels are not articulated to the reader. Information about the ease of use and level of student interest is limited to a few people. A survey of the participants using Sam Learning would have provided a deeper understanding of the software from a user's perceptive.

The data provided by Sam Learning about the software were shown to increase FCAT test scores. The authors showed the software's ability to raise test scores with a R^2. R^2 is used in the context of statistical models whose main purpose is the prediction of future outcomes on the basis of other related

information. (Cohen, J., Cohen P., West, S.G., & Aiken, L.S. 2003). An example, by using **X** does **Y** improve? If the R^2 = .25, this would mean that 25% of the increase in score is explain by students use of Sam Learning.   The closer R^2 is to 1 the stronger the correlation between the use of the software and the student's performance. However, when reporting R^2 Cohen (1988) suggested that correlations of 0.50 or more are large, correlations of 0.49-0.30 are moderate, correlations of 0.29-0.10 are small and any correlations smaller than 0.1 are consider to have a trivial effect. Out of the 11 correlations reported by the authors only two were larger than 0.1. Those two areas were Average Score for Chemistry exercises with a R^2= .176 and Average score for SAM Learning Math exercises R^2= .276. Both of these correlations would be consider having a small effect in improving FCAT scores. The other nine correlations are less than .1 which shows a trivial relationship between FCAT and the use of Sam Learning software. This would mean that the Sam Learning software only explains a small portion of the learning gains made by the students using their software.

The Sam Learning software does provide teachers and instructional coaches with an intervention to help struggling students. However, it would be difficult to recommend the Sam Learning because the results from the study do not account for much of the variance in student's performance gains on FCAT.

Cohen, J. (1988). Statistical power analysis for the behavioral sciences (2nd ed.). New Jersey: Lawrence Erlbaum.

Cohen, J., Cohen P., West, S.G., & Aiken, L.S. (2003). *Applied multiple regression/correlation analysis for the behavioral sciences.* (3rd ed.) Hillsdale, NJ: Lawrence Erlbaum Associates.