The Impact of Block Scheduling on Middle School Math Achievement
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BACKGROUND
St. Paul Catholic School is a fully accredited PreK-8 school located in Jacksonville Beach, Florida. The school has a current enrollment of 602 including 180 middle school students. Standardized test scores are consistently high in all areas. The Iowa Test of Basic Skills (ITBS), administered in October 2008, placed each grade level in the top ten percent nationally. The administration and faculty are dedicated to maintaining the highest standard of academic excellence. This makes St. Paul a model school within the Diocese of St. Augustine.

Block scheduling, which has been in place at St. Paul for four years, surfaced as a divisive academic issue and the scheduling model required reevaluation.

Hancock, Mattox, and Queen stated that “although block scheduling has demonstrated its viability in high schools, little research has explored its effect at the middle level” (1993, p. 3).

CURRENT STUDY
Purpose Statement
The purpose of this project was to examine and evaluate the impact of the block scheduling model on middle school math achievement and to identify the relationship among class frequency, student achievement, and student confidence with the math program ensuring that the academic experiences of St. Paul middle school students are maximized.

Research Questions
• Does block scheduling impact math achievement scores?
• Do increases in class frequency relate to increased student confidence and performance?
• What components of the block schedule lead to increased parent satisfaction and attitudes regarding the current math program?

METHOD
• To examine standardized ITBS and Explore test score results to assess and compare academic achievement results before and after the implementation of block scheduling.
• To survey attitudinal perceptions of students, alumni, parents, and teachers to better define the relationship among class frequency, student achievement and to identify the components of block scheduling that were successful in the classroom.
• Data collection across the various stakeholder groups occurred over a seven month interval beginning August 2008 and concluding February 2009.

FINDINGS
Utilizing an ANOVA single factor analysis, ITBS math scores for 6th, 7th and 8th grade students over the course of four years were analyzed, $F (5, 12) = .50, p > .05$. There was no statistically significant increase or decrease in test scores.

Survey results indicated a general dissatisfaction with the current block schedule model in regard to mathematics. All stakeholders were opposed to the block model with mathematics.

Areas of concern:
• Infrequency of class meeting
• Amount of subject matter addressed per class
• Lack of daily reinforcement
• Difficulty of the absentee student to makeup work.
• Teacher preparedness

Although there was no statistically significant increase or decrease in test scores, the findings indicated a need for schedule revision in the 2009-2010 school year.

DISCUSSION AND EXTENSION
• The lack of statistical change would indicate no positive or negative benefit to block scheduling for middle school students, however, the survey results from all stakeholder groups--student, teacher, parent, and alumni--indicated otherwise.
• Extending the length of math classes as originally hypothesized does not improve student performance.
• The study proved useful in isolating the components that were strengths and weaknesses in the overall block schedule model.
• The process is underway to revise the curriculum schedule for the 2009-2010 school year and a return to daily mathematic instruction.

“Curricular and instructional decisions should precede the identification of the most appropriate scheduling model” (Hackman, 2002, p. 27).