

## **PART II – VISION/MISSION STATEMENT**

At Bogle Junior High School, we encourage students to actively participate in their learning, to activate individual strengths and interests, and build adult and peer relationships that contribute to their overall success. An excellent teaching and support staff work to create a school climate that promotes student effort and acknowledges personal achievement. Students are exposed to elevated academic and behavioral expectations, paired with expanded social experiences and increased personal responsibilities designed to invigorate and prepare them for the future. In addition to raising classroom performance, students are guided in finding outlets for personal interest by participating in clubs, teams, or specific interest groups; experiences that result in new friendships, healthy recreation, and community awareness. Our mission statement created with student, parent, and staff input is posted in rooms across campus and reflects core values of our school: *Bogle Junior high is committed to providing each student with a quality education by promoting academic excellence, integrity, and responsible social development in a safe school environment. In order that every child becomes a successful and contributing member of society, we work to instill PRIDE in academic, social, and personal development through cooperative efforts of the school, parents, and community. Positive Attitude-Respect for Others-Individual Responsibility-Dedication to Learning-Excellence in ALL!*

Bogle Junior High provides several academic opportunities for every student to find success. An example of our commitment to excellence is our Math 360 program. This course is designed to target students who score "Approaches" or high "Falls Far Below" on the yearly AIMS math assessment. Students must demonstrate personal motivation in working to improve performance. The course's structure is designed to give focused support to our struggling students. Students take this class in addition to their grade-level math class, and are exited when grade-level performance is demonstrated. The two-tiered goals of the Math 360 program are (1) to improve student performance by providing focused instructional support and (2) increase individual mathematics confidence. Our staff takes *pride* in providing this exemplary program to our students.

## **PART III – PROGRAM DESCRIPTION**

### **A. Summary**

As mentioned in our vision statement, Math 360 is designed for MOTIVATED students who have failed to meet state AIMS mathematics standards and are therefore considered under-performing. When reviewing our school data, we identified middle students could best benefit from focused attention. Math 360 is structured to provide this intensified support, aide student progress toward grade level competency, as well as increase student confidence in mathematics.

The course is offered for 72 minutes on an alternating-day schedule and is formatted to provide review/practice of foundational math skills through strategic planning and targeted learning experiences. Each class is divided into three groups of students to form flexible skills groups. Students rotate, 20 minutes at a time, through three different centers each class period: the Successmaker computer program, independent practice and a teacher directed mini-lesson.

Math 360's design and concentration on specific skills tailored to each students' needs is where the program gains its power. A self-paced computer program allows for built in differentiation, and the independent practice affords flexibility for student choice. If a student misses a question on fractions, Successmaker will loop back to this concept until they have proven mastery. Likewise, if a student feels they are confident in fractions, they may choose a different independent skill to practice. In the mini-lesson, students use whiteboards and participate in teacher-planned activities to increase student engagement; these interactive experiences enable the teacher to give immediate feedback on their individual work.

Using summative data, student surveys, and informal interviews with students and teachers, we believe Math 360 is extremely successful. The structure of Math 360 and our school's continuous data use

to target the right students for this support, significantly impacts these results. The unique blend of student-focused decisions and collaboration within our math department fuels the program and sets the stage for continued achievement.

## **B. Student Focus and Support**

Data use and analysis drives decision-making at Bogle. We look at how students are performing, decide where improvement is needed, and then create a plan of action around identified needs. When deciding where the focus for this class should be, we found that our “middle performing” students needed the most support. While there are interventions in place for our struggling students and accelerated classes for our highest performing, those in the middle could benefit from more attention.

Students are initially selected for Math 360 based on previous year’s AIMS results AND teacher input regarding work ethic and drive. The first tier of selection is students who earned an “approaches” on the mathematics portion of AIMS. The second tier of selection targets students who are on the high end of “falls far below” on the mathematics portion of the AIMS, along with significant teacher input regarding student motivation. Criteria for teacher recommendation into Math 360 requires that the student shows motivation to learn, will not present behavior issues to the classroom and are not receiving any additional special program support (i.e., Special Education). Once enrolled, students who lack this motivation or distract the learning environment are removed from the class. To ensure opportunities for individualized attention, each class section is capped at 21 students.

Math 360 is designed for “flexible” enrollment; when grade level performance is achieved, individual students are exited from the class so that other “qualifying” students may receive support. While the main focus of the class is improving math achievement, we also strive to increase student confidence in learning. Students are involved in analyzing their AIMS results, grades, and SuccessMaker data to identify areas needing improvement. As they work in these areas, and ask clarifying questions, they begin to see the correlation between practice and understanding. Additionally the student’s regular Mathematics teachers are noticing improvements: “I feel (Math 360) gives my students more self confidence in math performance but also a willingness to ask for clarification and help” (seventh grade teacher Amanda Griffin). Developing learning skills in Math 360 has positive affects on grades, but more importantly the non-academic side of learning expands. In a recent survey, students were asked to rate the effects of Math 360 on their mathematics progress. Using a 1-5 scale (5 being “very much”), students were asked, “How much has Math 360 helped you be more confident with mathematics?”. Forty percent (40%) of students who have been in the Math 360 program for more than one quarter responded with a 4 or 5. This data gives us confidence that we are making progress toward our school goal of instilling personal PRIDE in all aspects of a student’s life.

## **C. Challenging Standards and Curriculum**

Math 360 instructors receive weekly lesson plans from regular Math 7 and Math 8 teachers, assisting them in creating focused, relevant mini-lessons and independent practice assignments. All content is directly related to both state and national academic standards. A Math 360 teacher regularly attends mathematics department meetings in order to collaborate, plan and discuss progress with the regular math teachers. Additionally, when a student is struggling, the Math 360 instructor will contact the individual student’s core teacher(s) for input on how to best help that student. Math 360 is an elective class, but bridges of teacher support are created to assist in students achieving grade level competence and increasing mathematical confidence.

The two Math 360 teachers work in tandem to design, analyze and modify lessons and classroom structures for the benefit of students. Together they continually work toward renewal and growth, keeping in mind the ever changing needs of the junior high student.

The partnership between the individual student and the Math 360 teacher is an integral component to our success. Each student meets with their Math 360 teacher a minimum of twice each quarter to review progress; AIMS scores, Successmaker grade level equivalents and performance in grade level math classes are referenced. Then, using this data, the Math 360 teacher and student reflect on previous goals and create new targets. Student input is critical to this process. For example, if a student lacks confidence in subtracting fractions, the Math 360 teacher will assign or even create more practice activities for that student to use during the independent practice portion of the period. When surveyed, one student described how Math 360 assists them as a learner of mathematics: "The best part of Math 360 is that your teachers aren't always on your back about not knowing math problems. They actually do go around and want to make sure that every kid, no matter what grade level they are at, and help them understand the math problem that they are having troubles with".

Successmaker is one part of the three part rotation in Math 360. For 20 minutes each class period students work independently on Successmaker, a standards-based interactive multimedia course, designed to hone and cement fundamental concepts taught in K – 8 mathematics.

During initial use, Successmaker tracks a student's progress, then based on responses and processes uses that information to place them at a level that stretches their current proficiency. The primary goal is mastery and until specific objective competency is achieved, students are provided tutorials that employ a scaffolding model of instruction. On average, a student can gain half year's growth annually every 10 hours they spend on Successmaker (based on a 10 month academic calendar).

An exceptional benefit of Successmaker is access to comprehensive course reports. These reports include grade equivalent, strand by strand competencies and identification of weak areas for each individual student. Regularly reviewing these reports allows the Math 360 teacher to assess student growth and progress and determine areas of mastery as well as needed additional instruction for each student. In the afore-mentioned survey, students were asked to rate how much Success Maker helped fill in any "gaps" they may have in their mathematical knowledge. Forty five percent (45%) of respondents who have been part of this program for more than one quarter answered with a 4 or 5.

Independent practice is the second part of the three-part rotation where students work on specific assignments. Individuals work at their own pace using assignments that are chosen based on their specific needs. Each assignment pinpoints a specific mathematics objective; once mastered the student moves on to the next appropriate objective. When completing a specific assignment, students self-grade using a teacher-provided answer key. They are required to show all of their work before they are permitted to grade. Through continual teacher monitoring, students are required to make corrections if needed, or move on to the next appropriate task.

Math 360 teachers are repeatedly gauging student progress so that purposeful mini-lessons (the third part of three part rotation) are constructed and small-flexible groups for class rotation are formed. Students enrolled in Math 360 receive a pass/fail grade.

#### **D. Professional Community**

Bogle Junior High truly shares a vision that all students can learn. Our common mission is evident in programs like Math 360, where 'middle performing' math students are specifically targeted. A professional learning community whose conversations are concentrated on what our students need, what we control, and what we can do right now to address those needs is reflected in the Math 360 program. Our teachers, counselors, and administration work continuously to target students for fluid movement in and out of the Math 360 classroom. This process of deliberate collaboration, analysis, and reflection is used throughout the year and is imperative to the program's success. Using formative and summative data, math teachers communicate where their students need additional focused assistance. At bi-weekly math department meetings, all teachers plan activities and give suggestions for the program's direction.

This, in turn, drives upcoming Math 360 instruction. Teachers also highlight particular concepts/skills they want students to practice on Successmaker. The counseling department plays an important role throughout the year by facilitating ongoing communication between parents, students, and teachers regarding the program. Overall, the Math 360 program allows our professional community to give focused attention to sometimes over-looked students in the middle.

### **E. Leadership and Educational Vitality**

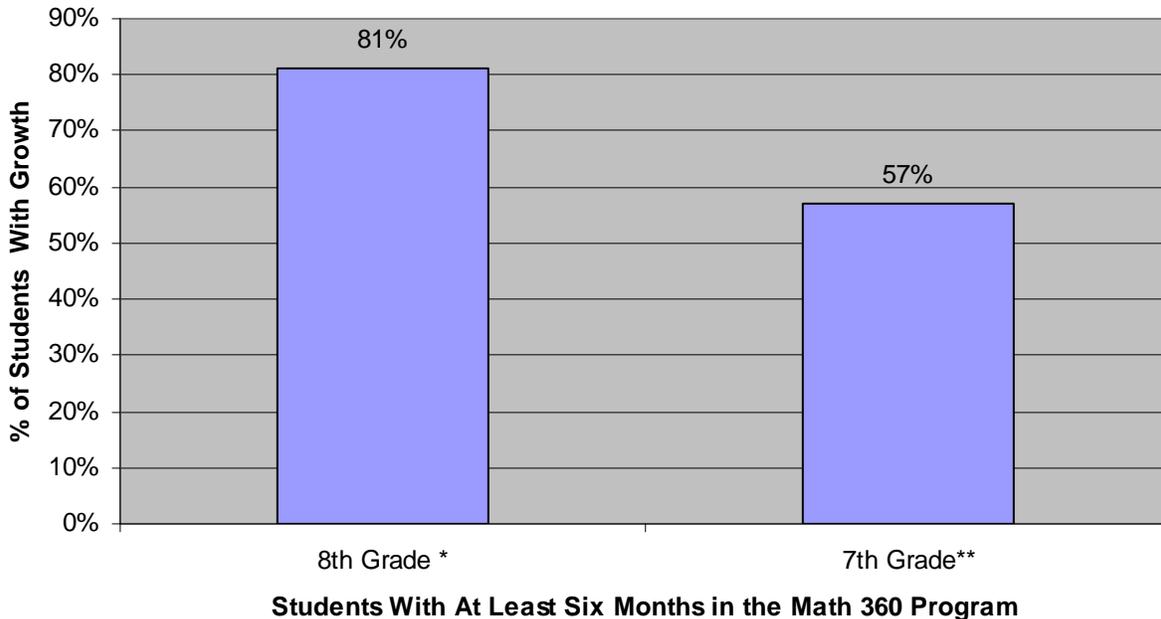
Our principal is the strength behind Math 360's success, her vision for the program makes it truly unique. As with any intervention or change, it takes time and "tweaking" to see positive results. When the class was initially instituted three years ago, it quickly became a "dumping ground" for low, unmotivated students who struggled with math. In the first year, "help with homework" was the norm in the class. Seeing this, and the examining the less than positive results, she consulted with teachers to revamp the course description and requirements for entry. A thoughtful data-driven approach, three-tiered rotation system, and the positive results currently evident are a result of those changes. By continuing to guard how this class forms and operates, our principal enables teachers and students to optimize their time in Math 360.

Also integral to the success of Math 360, is our principal's push for staffing. Each year the Math 360 teacher's contract continues to be a "balance of the year", typically determined after the school year starts. We hold our collective breath and impatiently wait for word that our enrollment justifies the contract. Without the ongoing dedication to Math 360 by our administration, it is doubtful we would ever reach the limitless potential of this site-developed intervention program.

### **F. Indicators of Success**

The following results reflect six months of intensive three-tiered instruction (computers, mini-lesson and independent practice):

**Percent of Math 360 Students With Growth on  
the Mathematics Portion of the AIMS Assessment  
for the 2010-2011 Academic Year**



\*Of the 81% of 8<sup>th</sup> grade students who showed growth from the previous year on the mathematics portion of the AIMS test, 38% moved up at least one performance quartile. (For example: moving from Approaches to Meets)

\*\*Of the 57% of 7<sup>th</sup> grade students who showed growth from the previous year on the mathematics portion of the AIMS test, 75% moved up at least one performance quartile. (For example: moving from Approaches to Meets)

### G. Replication

To truly replicate this program, implementers need experience in data-driven decision-making. At Bogle Junior High, we start with this idea, "Where can we make the most impact?" For us, with the Math 360 program, this lies with students in the Approaches category of the AIMS Mathematics test. Identifying students who have the potential to reach grade level proficiency, with a focused push, gives us an annual starting point. Once students are tapped, going back to specific and individualized data (AIMS results, grades, etc.) allows us to dive into skills each needs to be re-taught or strengthened. Access to a qualified and committed teacher(s), effective identification of student participants, and deliberate implementation of a three-rotation format are essential components of Math 360.

To successfully *sustain* a Math 360 program, having the right teachers is vital; strong communication skills, an ability and desire to analyze data, and the drive and talent to work well with struggling students are essential traits. The right person, with the right students, is crucial to the program.

At Bogle, having a school vision of personal development through cooperative efforts has made Math 360 an exemplary program!

