Guiding Question

How will the STEMbyTAF model ensure that math instruction accommodates and challenges all students in a blended classroom?

Background

Currently students at WMS are divided into two cohorts—highly capable and general education. Students in the highly capable cohort (HCC) are one to two grade levels ahead in math. Math enrollment is ability based and students who score at a level 4 above 2650 on the math portion of the SBA become eligible to sit for the math enrollment test. The enrollment exam itself has been the end of year test for the level that may be skipped (eg: someone previously enrolled in Math6 with the requisite score would take the Math 7 end of year exam to determine if enrollment in Math 8 is appropriate). Students’ enrollments have been determined by the skills displayed on their enrollment test. If a student is not eligible to sit for the math enrollment test, they are enrolled in the next course in the series.

The courses currently offered are:

- Math6
- Math7
- Math8
- Algebra I
- Geometry
- Algebra II

This highest level a 6th grade student can enter is Algebra 1. There have been a few exceptions over the last 10 years where students have come in at higher math levels.

The STEMbyTAF Implementation

TAF provides a student support specialist for each math teacher. Together they plan, analyze student performance and strategize approaches for each lesson. STEMbyTAF uses the same curriculum as provided by the school district and will often bring in additional curricular content to provide varied learning opportunities.

STEMbyTAF trained teachers understand that differentiation in the class is always necessary since there can be a broad span of math skills in one class at a time. Accelerated students are taught a year above their level so that they remain engaged. For example, if they are a 6th grader, they’d be taught 7th grade concepts. Typically, they learn the lesson with their peers so that they maintain the foundational skills and concepts previously mastered. This practice exists because they are so much further ahead and sometimes losing those skills over time if they aren’t practiced. The teacher extends students’ knowledge by adding an extra layer to the content; this could be having them teach the class the whole lesson (something all students do in all classes many times a year in their STEMbyTAF career to help deepen their content knowledge, learn to prepare content, improve time/project management skills and have a greater appreciation for teachers), answer deeper level questions/problems, or push them further on projects and activities from other students. The student support specialist plays a critical role throughout this whole process.

Students who are much further ahead, for instance at Algebra 1, will first be accessed for their conceptual knowledge knowing that sometimes, they can be placed in a higher math just based off procedural knowledge which doesn’t mean they fully understand math. It is TAF’s understanding that the district has the capacity to offer alternate course credit within one classroom based on the level of the student. For example, if a 6th grade student is eligible for Algebra 1, they will be in the same math class as the students studying Math6. However, based on access to course content they would get credit for Algebra 1. Adjustments to the curriculum and curricula content will be made accordingly. The teacher would deliver their core lessons and support will be provided by the student support specialist who is trained to help the higher-level students and has the knowledge to answer questions.