

Model Curriculum Units: One District's Experience



Our teachers have raised their expectations of what they will accept from our first grade students now that they have used the model curriculum unit.

Heather Ronan, Elementary Math Coordinator

Brockton School District

Tryout Overview

The Power of Ten, Grade 1

In this unit students will benefit from grouping objects and materials into ones and tens and connecting their knowledge to standard numerals and symbols. The focus of this unit is to develop students' understanding of whole number relationships and a strong foundation for place value. It is estimated that it will take approximately two weeks to complete. The suggested timeframe for implementation is Winter/Spring.

Summary

The Brockton School District invited all first grade classrooms throughout the district to participate in the model curriculum unit tryout. In total, fifteen first grade classrooms, located in approximately half of the elementary schools, participated in the tryout. Heather Ronan, Elementary Math Coordinator, believed that was a good sample size to provide the district with sufficient data to determine the unit's success. The district decided to tryout the unit in the fall even though that fell outside the recommended timeframe for delivery. Ronan believed that since the unit focused on place value, a critical skill for first graders, the earlier timeframe would build a strong foundation for the rest of the school year. Although the decision to teach the unit in the fall provided challenges for teachers, such as gaps in students' knowledge, the units were easily adjustable allowing the addition of supports needed for student success.

While preparing for the tryout last fall, Ronan met with the Instructional Resource Specialists (IRS) in each participating school to discuss the unit. Their role was to coach and support the teachers involved by meeting with them before, during, and after the tryout. Before teaching the unit, teachers met to review the Understanding by Design unit design and to get a clear

understanding of the expectations. ***Understanding by Design is a powerful process allowing teachers to grab hold, dissect, and translate standards into instructional practice.*** It presented a completely different way of looking at the standards for most teachers. In their unit analysis teachers considered additional lessons to fill in gaps that needed to be addressed as part of the unit. Additionally, teachers added more time for the unit, supporting the critical skill area and building students' foundation in place value. Teachers wanted to ensure that students grasped the skills before moving to the next lesson. At times that meant adding lessons to provide more practice for the students. Therefore, rather than the two to three week recommended time frame, the teachers taught the lesson in a four week time period.

Teachers participating in the unit tryout gained access to a number of resources to help support math instruction. Ronan considered that to be a great benefit for teachers. The resources included documents such as recording sheets, worksheets, and other additional math resources. The resources were part of the unit provided by ESE and were widely used to support instruction and reinforce the lesson's enduring understandings. In order to provide easy access to the resources, Ronan created a system within the district that housed and organized the documents. Her efforts were appreciated as teachers knew where to locate any supports needed throughout the month-long unit delivery.

Two Curriculum Embedded Performance Assessments (CEPAs) measured students' understandings of the content and of the unit's enduring understandings. Some students struggled during the first CEPA to complete the task independently. It was a big leap from the expectations in kindergarten. Therefore, teachers needed to provide some additional supports as students completed the first performance assessment task. However, teachers had a different experience during the unit's second CEPA. Teachers remarked at how far their students progressed as they demonstrated their understanding on their second assessment. Most students were able to perform the task independently with a deeper understanding of the concepts than what teachers had experienced in the past. Students exhibited a strong number sense as evidenced by the results of the performance assessment. Ronan noted that, by using the UbD model and focusing on the enduring understandings, ***teachers moved from thinking about what students are skilled at, to what students understand. It was a big shift.***

Recommendations

What changes, if any, will you make to the unit design to better align with your district's needs?

Perhaps the biggest surprise that Ronan noted was in a change that would **not** be happening to the unit. Originally, Ronan believed that beginning in the 2013-2014 school year, the place value unit would be moved to the winter as originally designed. However, since the district has fully adopted and implemented the new more rigorous math standards, the incoming first grade students will be ready for the unit in the fall. Ronan noted that the teachers have raised their expectations of what they will accept from our first grade students now that they have used the model curriculum unit, and has confidence that the students have acquired the skills to be successful this fall. In addition, more teachers will be using the model curriculum unit next year based on their colleagues' feedback and students' progress. This ensures that students will build strong conceptual knowledge and be more prepared for the additional levels of rigor required by the new standards.

What recommendations would you give to other districts as they begin to implement the model curriculum units in their schools and classrooms?

Understanding by Design is a planning framework that not all teachers were familiar with before becoming involved with the model curriculum units in the Brockton School District. Through the tryout process, teachers developed a deeper understanding of the connections throughout the unit. Ronan strongly recommends that districts provide an overview of UbD prior to expecting teachers to deliver the unit. By providing professional development on UbD and providing time for teachers to familiarize themselves with the design framework, teachers will develop a deeper understanding of the connections made between each of the UbD stages. It will make far more sense to the teachers and will ensure they have the “big picture” of the unit. Without UbD professional development and teacher collaboration, there is a risk that individually teachers will skip stage one and stage two of the planning design, moving to what they are comfortable with—stage three: lesson plans. Ronan strongly believes that the first two stages are critical for instructional decision-making throughout the unit and that, by overlooking those stages, students will lose the opportunity to gain enduring understandings and make strong connections throughout the unit. Ronan expressed that the time the district spent providing professional development and creating a UbD design process reaped great benefits. Now when teachers look at the model curriculum units, they get it!

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Additional Model Curriculum Units

ESE will be sharing approximately **90 model curriculum units** for K-12 teachers in ELA, mathematics, history and social science, and science, technology, and engineering content areas. These units will be made available to all districts throughout the Commonwealth beginning in the 2013-2014 school year. For additional information about the units visit: www.doe.mass.edu/candi/model