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Our Schools

Building a Data Culture to Inform Instruction

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Teachers collaborating regularly to analyze and discuss student work, classroom-based performance, and standardized test data such as MCAS are fundamental to advancing student learning. Renowned researchers Black and Wiliam (1998) state that teachers who regularly use assessments that inform teaching in real time can raise the standards of achievement for all students. Analysis of the data gained from the assessments and the subsequent interventions or modifications made to teaching based on these assessments are significant variables in educational research that has demonstrated a positive correlation to student academic achievement. Black and Wiliam's research has proven that better assessments yield higher student performance.

Academic achievement for all students continues to be the overarching goal of the Lexington Public Schools. We have consistently committed ourselves to continuously monitoring student progress in an effort to enhance learning. We establish what students will be able to learn and be able to do through the curriculum review cycle. A true data culture manifests itself when teachers make the discussion of student performance a natural part of all conversations. When administrators and teachers work together to examine student data, analyze performance patterns and trends, identify and plan classroom-based interventions that can improve student learning, a "data culture" is created. This type of data culture has been proven to improve student success.

Different types of assessments are used for different purposes in a data culture. Formative assessments are assessments "for learning." Thus, these assessments are used to "inform" teaching. Although we have regularly analyzed what students know through a variety of assessments, including verbal responses, quizzes, and tests, research shows us that a well-established data culture should include both (in)formative and summative assessments to inform our teaching. Formative assessments differ from summative assessments in that summative assessments are assessments "of learning." Summative assessments provide the teachers with a measure of what students have mastered. This type of assessment is typically done at the completion of a chapter or unit of study. Formative and summative assessments are important in the overall assessment process. Formative assessments assist teachers as they plan and differentiate their teaching. Summative

assessments assure teachers that all students have mastered the appropriate grade-level and subject-specific standards. Each type of assessment is important to the establishment of a data culture.

In the Lexington Public Schools, teachers are beginning to use formative assessments to complement the use of summative assessments to help all students reach academic proficiency. They monitor student learning progress on a regular basis, in "real time." This involves teachers collaborating regularly and discussing student progress and student academic data. In Professional Learning Communities (PLCs), teachers come together in grade-level or content-specific groups. In these PLCs, teachers identify what students need to know and master. They also discuss the use of "formative" assessments, or quick assessments (probes), that will give them critical data (information) to alter their teaching immediately, based on the information gained from the quick assessment or probe. K-12 teachers in the Lexington Public Schools have been working in PLCs this year to learn more about the development of formative assessments with the goal of redirecting or modifying their teaching approach based on the information they get on an on-going basis.

Teachers collaborating and regularly reviewing student performance data creates a culture that encourages educators to make decisions about teaching in "real time." The Lexington Public Schools remains committed to continuous improvement for students and teachers. Teachers collaborating in PLCs, working together to discuss student academic data, will help us to improve our practice as teachers, while at the same time helping us to find new and improved ways to advance student learning for all students.