FOREWORD

As educators, we often focus on the observable learning differentials between countries, states, and school districts, and between schools within a single district. With great clarity, Bush, Karp, and Dougherty demonstrate that in focusing on these differentials we are missing what is often a more significant differential—the differences in learning outcomes that exist within schools between teachers of the same grade level or subject.

Connected to and building on the latest mathematics education literature, the authors argue that it is essential that all stakeholders within a school collaboratively agree on and commit to following a Mathematics Whole School Agreement (MWSA). By making such a commitment, each school community can approach mathematics instruction in a unified and consistent manner. The fact that the authors recommend a whole school agreement is significant. While many schools today are engaged in professional learning community work, those communities, when effective, may only address horizontal consistency within a grade level or subject. Effective professional learning communities within an MWSA help ensure the needed vertical consistency in addition to horizontal consistency.

Even when the same curriculum and standards are used schoolwide, the outcomes students experience in different classrooms can vary greatly due to inconsistencies in notation, language, representations, instructional strategies, assessment techniques, depth of learning, and the “rules” students learn in different classrooms. It is this lack of horizontal and vertical consistency that contributes to inequitable learning outcomes in American schools. At its heart, achieving more equitable outcomes is the goal of the MWSA, and the authors provide a process to build, implement, and sustain this necessary agreement in a school, and ultimately a district.

An MWSA provides three levels of benefits to achieve necessary consistency: teacher, student, and school levels. Teacher-level benefits include support for high-quality mathematics instruction, enhanced teacher learning, increased professional communication, reduced personal isolation, and closer alignment between curriculum and assessment. Student-level benefits focus primarily on increased student success on outcomes and depth in students’ mathematical understanding, which positively influence students’ mathematical identity and agency. School-level benefits include a positive influence on school climate, support for innovation, a cultural shift that emphasizes equitable opportunity and outcomes, schoolwide attention on the needs of students, flattening of the power structure, and fostering of a professional culture of intellectual inquiry.
As the authors state, “An MWSA must be grounded in a schoolwide commitment to equitable and high-quality mathematics instruction.” The benefits of an MWSA address access and equity by supporting stakeholders’ knowledge of the promises and challenges of the students they serve, providing a sense of collaboration for addressing potential obstacles that may limit access to high-quality mathematics teaching, and creating the space and sense of community necessary for stakeholders to ensure that the allocation of human and material resources is equitably distributed and meets the needs of both teachers and students.

In a school with an MWSA, the mathematical identity and success of each and every student become the collective responsibility of every adult involved in students’ learning. We encourage you to take advantage of the authors’ recommendations, collaboratively build an MWSA, make a commitment to its implementation, and make a difference in the learning outcomes of the students in your school and district.

Robert Q. Berry III, University of Virginia, Charlottesville
Past president, National Council of Teachers of Mathematics

Matt Larson, Lincoln Public Schools, Nebraska
Past president, National Council of Teachers of Mathematics