Chapter 2

Getting Started: The "Big Ideas" of the Selection and Implementation Process

Any one of a variety of factors may set an adoption process in motion, for example, the budget cycle, community dissatisfaction over poor student achievement tests, state-level mandates for new curriculum adoptions, outdated textbooks, or the reform-minded vision of a small group of teachers and administrators. Districts generally begin to organize the process around this initial need, branching out to consider other issues as the process continues. Whatever the factors that bring you to consider standards-based curricula for your next adoption, you will need to know what to expect when reviewing standards-based materials so that you can lay out a realistic timeline and initial plan of action. You also will need to know how the process will be similar to other adoptions you have been through, and how it will be different.

We broke with tradition in our recent middle grades mathematics curriculum materials selection process. Previously, a small committee of teachers would sit around a table for three days listening to presentations from publishers, review materials for three months, come back together to make a decision, and the curriculum would be implemented the following year. This process was not going to work with the reform curricula. There needed to be large-scale buy-in. Teachers needed to have in-depth experiences with the materials. They needed some training. (D.B., mathematics curriculum consultant)

In our talks with district mathematics leaders throughout the country, several common issues and challenges have emerged. To help you get oriented and begin with your planning, we have distilled their experiences into six guiding principles—big ideas—for adopting standards-based curricula. You will encounter these principles throughout this guide.

Think Long Term

No matter how you end up working through the particulars of the selection and implementation process, chances are that both phases will take longer than they have in the past. There are several reasons you likely will need an extended timetable. For example, your district may need to raise general awareness (and support) among teachers, administrators, and parents for the goals and methods of standards-based mathematics education. Also, the review process itself will take longer. Because the mathematical ideas in standards-based curricula are generally presented within the context of activities and problems, you will have to examine the materials more carefully to get a sense of how the curriculum will work in the classroom. While you might be able to tell how the mathematics develops in some textbooks by reading the table of contents and browsing quickly through a unit or two, this strategy does not work very well with many of the standards-based curricula. With unit names like "All About Alice" and "Going the Distance," it is not immediately apparent what mathematical ideas form the basis of each lesson.

The implementation process will also take longer. Unless the teachers in your district have already been using innovative activities with their students and are therefore familiar with the kinds of teaching demands they will encounter with standards-based curricula, they will need more time to learn to use the new curriculum than if they were simply upgrading from one edition of a textbook to the next. Teachers may find both the pedagogical orientation of standards-based programs and some of the mathematics content to be unfamiliar. Some districts decide to extend the implementation process itself, phasing it in along with professional development designed to help teachers learn to use the materials effectively.

You also have to instill in teachers [that] it's going to take them 5–6 years to become skilled teachers of the program. Like a skilled artisan given new, sophisticated equipment, they're not going to get it right away—they'll need time. They must understand that, and we as administrators must also know that and give them time and support. (C.U., associate superintendent for curriculum and instruction)

Take a K-12 Perspective

Whether you will be selecting a standards-based curriculum at a single grade level or across the K–12 grade span, it is important to think about how your mathematics programs fit together at the different grade levels and how they fit with your district's curriculum framework. Taking a K–12 perspective will help you to minimize areas of overlap and redress gaps in content at the transitions between grade levels. This perspective will also help give you an overview of the pedagogical approaches used at different grade levels, and will help you prepare teachers and students for possible discontinuity in classroom structure and instructional approaches at these transition points. It can also help you to plan for conversations among teachers at different grade levels so they can have a better grasp of students' experiences in these transitions.

Know Your District's Current Situation

It is important to have a realistic assessment of the current levels of experience with standards-based mathematics education within the district, and of the degree of commitment (or even interest) among teachers, administrators, parents, and other community members. As a community, you will need to look at where you are at the moment, agree on where you want mathematics education to be in the future, and develop a plan for bridging the gap. A vision for mathematics education in the future and a realistic assessment of the current conditions in your district are crucial for your planning and decision making. You will use changes in curriculum and instruction to move toward your goal, making choices and allocating resources based on assessments of how much of the gap you can bridge at a time.

Identify people both inside and outside of your district who can help move your mathematics education agenda forward, and cultivate new relationships that will do the same. The more you can call on members of the community for expertise and support, the more the community will be able to work together to make your curriculum adoption successful. It is also important to make connections with people in other districts that have adopted standards-based curricula. Their experiences and perspectives can help alert you to important

issues and point you toward available resources, and they may have practical advice about the selection and implementation process.

Cultivate New Ideas about Mathematics, Teaching, and Learning

Taking a standards-based view of mathematics education means changing ideas about teaching, learning, and curriculum. Sometimes people interpret the *Standards* in terms of activities or behaviors, for example, using manipulatives or asking students to explain their thinking. While these are means by which reformers' ideas about teaching and learning are put into practice, they do not by themselves guarantee that powerful mathematical understanding will result. Learning to recognize quality in new programs and in their implementation involves developing new expectations for mathematics teaching and learning:

- Understand mathematical concepts.
- Develop facility with mathematical skills in order to engage in higher-order reasoning and problem-solving.
- Engage in sustained mathematical inquiry and problem solving.
- Work collectively as well as individually.
- Communicate ideas with others.

*Lots of people think that reform is about the trappings—working in groups, having "problems of the week," using portfolios—and they don't get the **spirit** of the reform, which is that math education is about thinking mathematically. (G.T., middle school teacher leader)*

Build Stakeholder Support and Commitment

Districts that have recently adopted standards-based programs consistently note that stakeholders' commitment to the curriculum is central to its successful implementation. It is important to have the support of a variety of stakeholder groups, from those who are most directly affected by the introduction of a new program (classroom teachers, students, parents, and administrators) to those school and community members who work with teachers or students or who have a vested interest in the outcome of mathematics education (e.g., school counselors, mathematics supervisors and staff developers, special education and/or learning center teachers, counselors, and business people within the community). It is important to keep all of these groups of people in mind as you work to build support for your program.

One way to create support early on in the selection process is to hold discussions within the community about the district's goals for mathematics education. Use these discussions to review the NCTM *Standards*, your state curriculum frameworks, and any local standards or frameworks that are currently in use. Do they reflect your community's goals and expectations for mathematics education? What visions do you have of mathematics classrooms—what are students and teachers doing during lessons, what are children learning, and

what do you want them to know and be able to do when they finish elementary, middle, and high school? These discussions will create a broad base of awareness among different stakeholder groups and provide opportunities to air disagreements or different perspectives. They also can be an important step toward building community commitment and enthusiasm for working with standards-based materials.

In this guide we assume that your community already has some set of standards for mathematics in place. You may have discussed and adopted your state frameworks, or used the NCTM *Standards* to develop a set of district standards of your own. If you have not, we strongly suggest that you undertake a series of conversations about setting standards as part of your "getting started" process. Even if your community already has a set of standards in place, you may want to hold some meetings to revisit them, making sure that they reflect your district's current goals and expectations. If you would like to learn more about setting district standards, a good resource is *Front-End Alignment*, a practical and informative guide.[3]

[The district] used community members all the way through the process of identifying what they wanted [the curriculum] to be, content-wise. They met late in the day so people could come. They talked together about what was important to look for in a curriculum—what they wanted students to know. They looked at the state content standards, doing some envisioning of what they wanted. (J.M., state associate director of curriculum)

Identify and Support Teachers' Needs

Standards-based programs depend on teachers' active participation for successful implementation. A teacher's ability to manage classroom exploration and conversation, monitor students' work, and assess students' progress toward deeper understanding is central. These are often skills teachers have not been required to cultivate before. Identifying teachers' needs for support and developing appropriate responses to these needs are two key factors in the adoption process.

One thing that has been loud and clear at all grade levels: [the need for] staff development. I hear it over and over. If you adopt these curricula, you need ongoing staff development. Otherwise, you get folks going over to [an educational materials store], buying workbooks and using those. (K.V., mathematics curriculum specialist)

[3] Mitchell, Ruth. (1996). *Front-End Alignment*. Washington, DC: The Education Trust.