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Making the Case for Curriculum Mapping

For if you continue to do what you've always done, you'll always get what you've always got.

—Roland Barth (2001, p. 22)

If improving student learning and student achievement are the goals of our schools, then it is imperative that we examine the processes that influence those goals. Specifically, we must examine how educators plan and implement curriculum and instruction.

WHY CURRICULUM MAPPING IS A BETTER ALTERNATIVE TO OTHER CURRICULUM MODELS

The curriculum models that exist in many schools are based on outdated models that do not reflect the reality that occurs in classrooms. In most schools, curriculum development consists of a process where representative teachers are assigned to curriculum committees to write curriculum based on what they believe should be covered, personal choices, textbooks, favorite lessons, standards, and, all too often, best guesses. The results are often inflexible documents that do not address the ever-changing curricular needs of school districts. The large impressive curriculum binder is photocopied and distributed to the staff

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and administration; it represents a group's best intentions of what they believe should be taught. However, in reality this document has little connection to real classroom practice. It is usually at this point that the large compilation of well-meaning information is promptly filed somewhere in classrooms and administration offices, not to be looked at again until the next curriculum revision cycle, reinforcing the notion that the curriculum is "finished."

This type of curriculum writing is externally driven and cumbersome to use. It is based on a representative group of teachers' best intentions, not the current curriculum information from all teachers, and seldom reflects the reality of what occurs in classrooms. This is a risky practice in our world of high stakes accountability inside and outside the school environment. All stakeholders, including those outside the school community, are much more involved and interested in what is being taught in our schools. This was very evident in an incident that occurred in an elementary school prior to the beginning of the school year. The following is the elementary building principal's story of being confronted with a curriculum request from a parent.

When she arrived in his office, the mother explained that she and her husband had just taken jobs in the larger neighboring city, but they were choosing to live in one of the small suburban towns nearby and she was visiting various schools in the area to determine which school would best fit the needs of her son. She went on to describe her son's high interest and aptitude in science. In the course of the conversation, she asked to see the fourth grade science curriculum, as the strength of the science curriculum would help her to decide which school district would be the best for her child. Somewhat surprised, he agreed and took the large science curriculum binder from the shelf (after inconspicuously brushing the dust off) and showed her the fourth grade science curriculum, secretly hoping that it was somewhere close to what was actually taught. He really didn't know.

As he later described this parent visit, he shared how much more accurate and professional it would have been to be able to go to his computer and pull up the fourth grade science maps and know with a degree of certainty that this was the current science curriculum taught in his school. What he showed this parent was guesswork.

As parents become more involved and savvy about school choice and how standards and curriculum are or should be implemented in their child's classrooms, this kind of episode will be the norm rather than the exception.

Another major flaw in many current guides is the lack of assessment information. There are lists of content, objectives, skills, and standards with no information about the types of assessment practices that provide the feedback on the achievement of the taught skills. The assessment component of classroom practice is the most important evidence teachers and all stakeholders have to be

assured that the content, skills, and standards are taught and mastered by the student.

Curriculum mapping is an alternative that provides a process-oriented model that is respectful of the knowledge of every teacher, encourages collaboration and reflection, and is sensitive to the complexities of student learning and the teaching profession. It offers the flexibility to address the changing curriculum needs of school districts by relying on the active participation and expertise of teachers. It is a process that consists of procedures that include easy curriculum modification, revision, and updates on a timely basis, resulting in a current, reality-based, standards-aligned curriculum.

CURRICULUM MAPPING AND BUILDING EFFECTIVE SCHOOLS

The curriculum maps are valuable documents, in and of themselves, but the process to create and discuss the maps is of equal value. As a district progresses through the curriculum mapping process, they experience the types of activities that build strong, effective schools. The research on effective schools based on the work of Rick DuFour and R. Eaker's (1998) *Professional Learning Communities at Work*, Peter Senge's (2000) *Schools That Learn*, Michael Fullan's (2001) *Leading in the Culture of Change*, Tom Guskey's (2000) *Evaluating Professional Development*, and Roland Barth's (2001) *Learning by Heart* share common tenets. These common practices evident in effective schools include collaboration, reflective inquiry, shared purpose, teacher and student learning, and program coherence. These tenets influence school improvement and are deeply embedded in the curriculum mapping process and outcomes.

Collaboration

True collaboration occurs when all teachers participate in active, meaningful dialogue about teaching practice. Few schools have effective communication systems in place that provide the structure and time for teachers to share and discuss their work. Most schools inherently contain a variety of structural and cultural barriers that prevent teachers from sharing teaching information and from having opportunities to act upon this information in meaningful ways (Fullan, 2001). The expertise and knowledge of teachers is vitally important to teaching and improved student learning. The very foundation of curriculum mapping requires teachers to talk together about what they teach. These conversations compel teachers to analyze practice, make decisions about curriculum changes and modifications, examine assessments, and ultimately learn from each other in a collaborative manner. As these conversations occur, it becomes apparent that the students become the central focus. No longer is it possible to consider what occurs in individual teachers' classrooms as isolated events disjointed from others who are part of the same school system, assessment structure, and who share the same students. Curriculum mapping creates an atmosphere of joint responsibility where all teachers believe that all students

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are our students. Edward Joyner (2000) offers the following insight, which reinforces the need for collaboration among teachers.

All too often, there is little communication across grade levels and across content areas. A child gets an experience in one year that might not relate to the next year's experience. . . . [Y]ou have to get agreement among all the teachers about where the starting level for students exists and how fast to carry them along the development path. Teachers in successive grades need to think of themselves as relay racers. Passing a baton. Year after year, as students change and state requirements shift, teachers need to discuss openly the work that is going well, the work that is not, and the changes they need to make. (p. 394)

Curriculum mapping provides a forum for this method of sharing information in a collaborative manner to improve the learning environment for all students.

Reflective Inquiry

Reflecting about teaching practice, both individually and with others, helps all teachers find meaning in their collective experiences, clarify actions, and gain alternative perspectives about teaching practice. In the curriculum mapping process, reflection occurs on an individual basis as one documents the content, skills, and assessments that are taught each month. Shared reflection occurs when teachers have the opportunity to look at one another's maps, reflect upon them, collaboratively discuss questions and new learnings, and, consequently, create a plan of action based on this teacher-generated data. This powerful reflective practice helps teachers create and revise the real curriculum and make data-informed decisions to improve teaching practice and student learning.

Shared Purpose

As teachers come together to discuss the curriculum maps, opportunities arise for teachers to explore the individual and collective value and belief systems within a grade level, school, and ultimately the district. It is often discovered that much of the curriculum is inconsistent, not aligned to standards, repetitive, and based on the desire of the individual teacher. When teachers discuss their maps, they have the opportunity to analyze not only what they are doing but also why they are teaching a subject in a certain way, at a certain time, or including it in the curriculum at all. These professional conversations provide opportunities for teachers to explore their individual vision of teaching and learn about others' viewpoints and the manner in which those personal teaching philosophies meld with the large landscape of teaching and learning for all children.

Student Learning

Curriculum should be based on the best interests and needs of students. However, far too often the curriculum is based on teacher choices and preferences. Placing students in the center of curriculum reform is a vital underpinning of curriculum mapping. Teachers must continually ask themselves if what they are

choosing to teach is in the best interest of the students, and how it relates to and connects with what happens to students beyond the scope of the individual classroom. As every teacher analyzes the collective, authentic curriculum data from all teachers and uses this information as a vehicle for making positive, effective changes in the students' learning environment, improved student learning will occur. Furthermore, sharing the maps with students informs them of their journey, sparks their curiosity, and increases their motivation.

Program Coherence

Effective curriculum can become the school's living document that describes the content, skills, and assessment both horizontally within a grade level and/or content area and vertically across grade levels. Current, reality-based dynamic curriculum maps represent a program's consistency and coherence. Process-oriented curriculum mapping helps us make sense of our teaching actions and provides the picture for all stakeholders.

These tenets come together when teachers create, analyze their own and others' maps, are given multiple opportunities to collaborate, reflect about their practice, are cognizant of their vision of education, and, most important, are sensitive to the needs of students.

CONNECTING MAPPING TO OTHER INITIATIVES

Curriculum mapping is not a separate set of tasks to be completed in isolation from other school initiatives but rather serves as the interactive center for the processes and dynamics of school improvement. As teachers and administrators face school improvement initiatives such as higher accountability, standards alignment, curriculum integration, and assessment issues, the curriculum maps become valuable tools to help build the capacity for meaningful change and improvement. Curriculum mapping is a process that engages all staff in curriculum reform and development.

Accountability: Data and Curriculum Go Hand in Hand

According to Fox (2001), there are three main sources of school data: outcome, demographic, and process. The outcome data is comprised of student achievement data, attendance data, behavior records, and other types of survey or satisfaction measures. The demographic data represent student population characteristics that include race, ethnicity, economic level, disability status, and limited English proficiency. The third type of data is process data, which include the curriculum that guides classroom instruction.

In recent years many school districts have organized data analysis events, often called data retreats, where teachers and administrators come together to unpack the outcome and demographic data to determine achievement patterns, student patterns, and patterns of program quality (Sargent, 2000). While all data reflects the challenges that face our schools, the process data is the main source of data that schools can significantly control through curricu-

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lum and instructional strategy modification and revision. Curriculum mapping and curriculum maps provide a critical process-oriented data source. Data analysis and curriculum mapping must be tandem events, one informing the other. Bringing together the results of data analysis and using that information to impact the action piece, the curriculum, allows teachers to see the big picture of the school's accountability system and to make effective changes. Curriculum mapping is an integral part of a school's accountability system.

Implications of No Child Left Behind

The spirit of No Child Left Behind legislation is to improve the public education system and increase student achievement. This legislation is designed to improve school outcomes by making strong connections between standards and curriculum, especially in reading and mathematics. If schools are to make these connections, it is imperative that an effective standards and curriculum alignment process be in place.

Standards Alignment

Academic standards have become the consensus statements for what school children in the United States should know and be able to do. The standards provide the structural framework for the written curriculum, requiring a close alignment between standards and curriculum. Facilitating the alignment process has proven to be a challenging, lengthy, and often ineffective process. Teachers have struggled to translate standards language into meaningful curriculum largely because current methods of standards analysis have been difficult and time consuming to realize.

The following is an example of how the standards analysis and curriculum alignment process has typically occurred.

The standards alignment process began with a large representative group of teachers who met for a three-day workshop during the summer. These teachers brought curricular materials consisting of large curriculum binders, textbooks, and various other curriculum guides along with the most recent copy of the state standards. To document standards and curriculum alignment, representative groups of teachers would examine each written standard, discuss what they believed it meant, and identify the extent to which they believed the standard was covered, not covered, or questionably covered. The discussion would include consulting the curriculum guide or textbook to determine if the standard was listed, or in some cases, one of the teachers, as a representative of the grade level or content area, would indicate that the teachers in his or her respective team or grade level do or do not "cover" that specific standard. When consensus was reached, a group member would check the appropriate box on the provided standards alignment form. At the end of the workshop, there were pages of completed standards checklists representing the faulty belief that the district's curriculum was "aligned."

This type of alignment process raises the questions, Aligned to what? Aligned to a document that no one uses, a textbook that is outdated and soon to be replaced, or based on the representative voice of a teacher with little or no authentic knowledge of what occurs in the classrooms of his or her colleagues? Accurate alignment must begin with knowledge of the curriculum that is actually taught. Someone's best guess will not create an accurate alignment. The alignment should also contain some type of standards analysis so everyone understands the jargon-heavy standards language.

Furthermore, to authentically determine standards and curriculum alignment, there must be a discussion of the types of assessments that provide feedback regarding the extent to which students have mastered the content and skills reflective of the standards. Merely stating that it is "covered" in the curriculum is not enough.

Curriculum mapping helps teachers to analyze the standards language and to meaningfully align the currently taught content, skills, and implemented assessments to the standards. The curriculum mapping process provides a forum for all teachers to discuss this analysis with their colleagues. This analysis, reflection, and collaboration helps teachers arrive at new understandings about what the standards truly mean for themselves, and their students, both vertically and horizontally, and then to meaningfully align the standards to the authentic curriculum.

As one classroom teacher who was mapping her curriculum and aligning what she taught to the standards stated:

It's when I got to the standards alignment part that mapping began to make sense. I thought I knew the standards, but until I really had to compare them to what I actually do did I understand them. I could now see that what I do is part of a bigger system; that's when it made sense to me. (Elementary teacher, personal communication, January 2004)

The Literacy Connection

A major component of No Child Left Behind legislation and a strong indicator of student success is literacy competency. To meet this challenge, all teachers must understand literacy processes and integrate those processes across all curricular areas. In short, to some extent, all teachers must become literacy teachers. These cross-curricular literacy strategies, which will be addressed in Chapter 4, include examining text structure and format, editing and revising written work, using common writing rubrics, incorporating non-fiction and fiction texts, including oral communication skills, and enhancing and intensifying vocabulary development. No longer should any student believe that literacy skills are only relevant in English class. Focusing on literacy skills across the curriculum makes them a districtwide priority. Teachers can begin to identify common literacy-based skills that must cross all content areas. All teachers can design common literacy-based assessments that enhance all curriculum areas.

As teachers engage in professional conversations about maps, cross-curricular information is shared that can provide literacy instructional strategies

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to those teachers who feel less competent about their own literacy skills. Curricular conversations provide informal professional development.

New Teachers and Veteran Teachers

When most new teachers begin their teaching career, they are overwhelmed with feelings of uncertainty. Having very little or inadequate curriculum materials further complicates the already challenging life of a first-year teacher. Invariably, when curriculum mapping is presented to faculties, some teachers express the positive impact a current, easily understood curriculum would have had on the effectiveness of their first year of teaching. While not completely eliminating the anxieties of a first-year teacher, having easy access to current curriculum maps from current colleagues and/or the prior course or classroom teacher greatly assists classroom teaching and, more important, positively impacts student learning. In addition, as new teachers and their mentors collaborate on curriculum maps, the process promotes collegiality and reflection, further strengthening the mentor/mentee relationship (Udelhofen & Larson, 2003).

On the other end of the spectrum, those teachers who are close to retirement have a powerful role in curriculum mapping. It is vital that our most honored colleagues have a vehicle to leave their teaching legacy. Upon retirement, these experts in their field too often take with them an enormous collection of curriculum experience. This wealth of knowledge is lost to new teachers, remaining colleagues, students, and the teaching profession. Curriculum maps provide a process and product to share years of teaching knowledge and experience to benefit teachers and students alike.

Developing Professional Learning Communities

According to Roland Barth (2001), a professional learning community is a place where teachers and students care about, look after, root for one another, and work together for the good of the whole, in times of need as well as times of celebration. As teachers come together to assimilate new ideas and teaching practices, discuss what is and is not working in their own teaching, and develop ways to modify and improve the real curriculum—all steps inherent in the curriculum mapping process—professional learning communities are created. A collaborative culture is created that builds results-oriented environments that offer the best hope for transforming schools and energizing teachers to better meet student needs.

Curriculum mapping is a process-oriented curriculum development model that builds environments that offer great hope for transforming schools and energizing teachers to better meet student needs. As in any worthwhile endeavor, it is time-intensive, and there are foundational strategies to be considered before embarking on this initiative. It is a process that produces a clear road map for instructional content for the whole school. However, the process is much more beneficial than its name suggests, as it also builds learning communities, maintains focus on the goals of No Child Left Behind, grounds conversations about student data, and promotes the sharing and transfer of teacher knowledge and expertise. Chapter 2 presents important steps to consider before beginning the formal curriculum mapping process.