The clock shows it’s time for the next workshop. Reluctantly, the teachers leave the table of coffee and breakfast snacks to brace themselves for another day of staff development. Surrounded by notebooks full of standards, pacing charts, and other curricular materials, they settle into their well-perfected roles as passive observers.

Mary and Ethel, two veteran teachers who have “trained” the last four principals, slowly take their established seats in the back of the room. Mary, a 1st-grade teacher known as one of the best reading teachers in the district, secretly believes she knows more than most of the people who provide staff development. Ethel, a tough 5th-grade teacher, openly criticizes many of the wasted days that would be better spent with her students.

The consultant asks how many teachers with at least five years of experience have been successful with all students. Mary desperately wants to raise her hand, but remembers Jonathan, a wonderful boy who left her 1st-grade class not able to read, a boy who still frustrates her as “one of her failures.” Mary is relieved to see no other hands go up. The consultant
asks if the problem is that the teachers didn’t try hard enough with these difficult students. Mary’s back stiffens. Others start to explain their reasons, including the many pressures and challenges teachers face. The tension quickly lessens as the discussion turns to ways teachers can work smarter and not harder.

The consultant asks the teachers to write down what they think makes the greatest difference in student achievement. Mary scribbles “the home” and Ethel writes “money.” Others volunteer a strong faculty or parental involvement, and a few suggest the availability of resources. The consultant shares information from What Works in Schools: Translating Research Into Action, by Robert Marzano (ASCD, 2003). The teachers are surprised that Marzano says a guaranteed and viable curriculum has the greatest impact on student success.

When the consultant asks for a volunteer to describe the curriculum across the grade levels for science, social studies, math, or language arts, not one hand is raised. No hands go up when the group is asked who has a class with everyone on the same instructional level. Candid discussions start about the curriculum and the myriad expectations of teachers.

OVERVIEW

Curriculum means different things to different people. Here we
Define curriculum as a document listing outcomes based on district and state standards that is used to guide the schools within a district. Curriculum is tightly linked to instruction and assessment — what is taught (curriculum) affects how it is taught (instruction) and the measure of what is taught and learned (assessment).

Designing curriculum means defining and organizing what is taught to improve student learning. To design curriculum, educators must identify what should be learned and taught. Educators also need to sequence the curriculum, determine which instructional techniques are appropriate, and decide when and how to assess learning. Designing curriculum requires educators to examine their own teaching and learning environment in the context of the larger teaching and learning environment of the school. The process empowers teachers to make more efficient and effective decisions and moves them professionally to a level of being able to define a viable curriculum across the grade levels. Designing curriculum can be a powerful professional learning experience.

As they study each of the subject areas or disciplines (such as mathematics), educators identify logical connections within and across these disciplines. They become aware of possible themes, essential questions, or overarching ideas that can lead to interdisciplinary units. Interdisciplinary curricula, whether in a self-contained classroom (usually in elementary schools) or in a subject-specific classroom (usually in secondary schools) enriches students' learning experiences. As in most life experiences, the students' learning experiences are not segmented by subject area.

Many times, interdisciplinary curricula come about by default. Teachers hear that other teachers are doing something that relates to what they are doing in their own classrooms and, almost accidentally, they connect with each other. Or a teacher develops a theme that excites her, then identifies curricula from various subject areas that support the theme.

Curriculum design helps teachers see the connections, find resources, and make interdisciplinary curricula happen in their own classrooms. The process empowers educators to decide how and what to teach rather than allowing the curriculum to evolve almost by default. Curriculum design helps teachers see the bigger picture that students experience, then see the logical connections.

Most importantly, curriculum design is a professional development experience that begins with teachers looking closely at what students experience according to the written curriculum, not just in the teacher's own subject areas but across subjects or classes. Seeing the whole allows them to analyze the parts. They critically examine and reflect on their own curriculum (and related instruction and assessment). They think beyond their grade level or subject to the learning of all students, not just their own.

If Marzano (2003) is correct that a guaranteed and viable curriculum is the chief determinant of student achievement, then no teacher can leave the school's curriculum unexamined.
Turning educators into curriculum designers takes time and the involvement of a school's educational community. Educators must examine their own curriculum in the context of curriculum requirements for the whole school in all subject areas.

**STEP 1: Meet pre-conditions**
- **Identify the need.**
  - Data collection and analysis, tuning protocols, examination of student work, study groups, critical friends groups, lesson study, standards in practice, and other professional development designs may help staff realize the school needs to work on the curriculum.
  - **Get sponsorship from the district and school leadership.**
  - **Ask appropriate administrators** (such as a director of curriculum) at the district level and the school level (principals and counselors) to participate in the design group.
  - **Set a regularly scheduled work time.**
    - Curriculum design cannot be accomplished in one or two afternoons. In fact, sponsors of the process need to be aware that teachers probably cannot sustain the work while school is in session unless they have released time. Otherwise, plan to use a week or more in the summer.
  - **Identify appropriate participants.**
    - At the very least, the process should involve representatives from each grade or subject; the best scenario involves all educators in a building, as well as others (such as parent liaisons) who are active in the school.
  - **Decide on a facilitator.**
    - Some groups need facilitation, at least to start. In other schools, staff members can facilitate.

**STEP 2: Identify and clarify the curriculum**
- Once the group convenes, the facilitator makes sure members follow good meeting techniques: Make any meeting announcements, use agendas, begin with warm-up activities, set norms, use both independent and small group work, allow time for whole group sharing and reflecting.

The facilitator (outside consultant or a staff member) makes sure all participants have a copy of the curriculum they are using. Begin with the published curriculum — usually in the form of district standards.

In elementary schools, groups of grade-level teachers summarize their curriculum on chart paper for the four core subjects: social studies, language arts, math, and science.

Teachers in special areas such as music, art, or physical education work individually or in small groups and write down their outcomes. They go beyond the published district standards to show specific ideas and concepts. They show how skills and knowledge develop across the grade levels. Each subject area and special area group makes a chart (using chart paper) for easy reading across grade levels.

The group refers to the required curriculum — including state and district standards — but expands the work to include units or lessons they teach, strategies and materials they use, and assessments they employ.

**STEP 3: Share the curriculum**
- Each group shares its curriculum. The whole group walks around reviewing the chart papers. A representative of each smaller group explains the small group's material and answers questions. Participants actively describe their units and teaching strategies. As the whole group finishes with each small group's work (3rd grade, for example, or freshman math), the group moves to the next area (4th grade, for example, or calculus). Participants take notes on each group's posted work.

At the end of the walk-around, the whole group discusses how students develop skills and knowledge, as well as the activities and teaching strategies being used. The facilitator guides teachers in focusing on gaps and repetitions across the grade levels, explaining that the purpose is to make sure the school has a viable curriculum across grade levels and subject areas.

The facilitator asks participants to comment on what they see. Debating the essence of the curriculum, discussing terms, and clarifying ideas can take several hours.

**STEP 4: Address gaps, repetitions, and assessments**
- Teachers return to their small groups to review the curriculum and activities they shared and compare them with the required curriculum at the grade or subject level above and below to identify standards that appear to be the same from level to level. Teachers remain in their grade-level or subject-area groups, working through what they noticed in the previous step. They check the charts prepared by other groups, and consult with other grade-level or subject-area groups as needed. They discuss the progression of skills and knowledge across grade levels and work to resolve gaps or repetitions.

**STEP 5: Construct a curriculum map**
- Each group produces a copy of the revised curriculum and passes out copies to each member of the group. The facilitator begins the curriculum map by asking teachers to figure out the number of teaching days per month. The facilitator lists the months across the top of a large piece of paper in front of the room, identifying the number of teaching days for each. Content areas/disciplines are

listed on the left side. The facilitator passes out glue sticks. Teachers cut apart the curriculum standards and decide on the sequence and the time emphasis for each part. Each discipline is addressed individually as it is placed on the map to ensure that the integrity and the rigor of each discipline is maintained.

Teachers who decide to teach disciplines separately may stop here and feel empowered as curriculum designers. They understand and have control over what they are required to teach and have made logical connections with other parts of the curriculum within their discipline and grade level or across disciplines and grade levels. They have a road map they have designed and know how to make decisions if they want to take side trips or progress faster or slower than planned. The teachers have gained significant power as curriculum designers, but can achieve much more with a few additional steps.

STEP 6: Organize the curriculum to identify logical connections

Now that teachers have worked to improve the curriculum, they discuss how to organize it. One way is according to units. Teachers may decide to teach aspects of the curriculum separately to give each subject area more rigor, or they may plan the entire year according to units. For example, an elementary school teacher may teach math, science, social studies, and literature separately, or she may teach a unit on industry, companies, and literature separately, or she may teach math, science, social studies separately to give each subject more rigor, or they may plan the entire year according to units. Teachers may decide to teach aspects of the curriculum separately to give each subject area more rigor, or they may plan the entire year according to units. For example, an elementary school teacher may teach math, science, social studies, and literature separately, or she may teach a unit on industry, companies, and literature separately, or she may teach math, science, social studies separately to give each subject more rigor, or they may plan the entire year according to units. Teachers may decide to teach aspects of the curriculum separately to give each subject area more rigor, or they may plan the entire year according to units. For example, an elementary school teacher may teach math, science, social studies, and literature separately, or she may teach a unit on industry, companies, and literature separately, or she may teach math, science, social studies separately to give each subject more rigor, or they may plan the entire year according to units. Teachers may decide to teach aspects of the curriculum separately to give each subject area more rigor, or they may plan the entire year according to units. For example, an elementary school teacher may teach math, science, social studies, and literature separately, or she may teach a unit on industry, companies, and literature separately, or she may teach math, science, social studies separately to give each subject more rigor, or they may plan the entire year according to units. Teachers may decide to teach aspects of the curriculum separately to give each subject area more rigor, or they may plan the entire year according to units. For example, an elementary school teacher may teach math, science, social studies, and literature separately, or she may teach a unit on industry, companies, and literature separately, or she may teach math, science, social studies separately to give each subject more rigor, or they may plan the entire year according to units.

STEP 7: Use logical connections to create units

Connections make the curriculum more meaningful for students. Asking “so what?” can help teachers see connections between a time in history and art, music, or a piece of literature. Connections take students and teachers beyond topics like ladybugs or dinosaurs to questions or themes relevant to real experiences and life in the present and past.

After teachers identify logical connections, they develop units that address two or more content areas. As they connect the topics into themes, teachers consider the emphasis, teaching strategies, and time allotments for each topic.

The group then works to convert the topics into teaching and learning activities.

STEP 8: Design weekly plans

Using the web of activities, teachers write weekly objectives, indicating the instructional emphasis and activities for the duration of the unit.

As they design objectives, teachers continuously refer to the webs and the large curriculum map. Moving among the webs and the curriculum map takes teachers through layers of curriculum design and helps them see parts and the whole.

STEP 9: Identify appropriate materials and resources

Teachers identify materials and resources to support the redesigned curriculum. Veteran teachers often can provide valuable information about resources and activities they have tried and found effective. Teachers have a chance to pool ideas and build exciting experiences across grade levels. They can open the door to resources beyond textbooks, such as original documents — including oral histories and letters.

STEP 10: Develop daily lessons and activities

Teachers spend individual time to develop daily lessons and activities. Teachers put different spins on their instruction, and there is little reason to standardize instruction in all classrooms. Having seen the big picture helps teachers customize the curriculum to meet their needs and interests — and those of their students — in the context of the whole school.

CONCLUSION

Both veteran and new teachers often have not had a chance to really understand curriculum. They may have neatly packaged reams of curriculum and attend sessions where a curriculum is described to them at length. Rarely, however, do they have an opportunity to discuss the details of a curriculum, organize it, and design connections. Empowering teachers as curriculum designers gives them the tools to make critical decisions about what to teach, how to teach it, and how do determine if students have learned.

As teachers become curriculum designers, they learn what is important to give up, especially content that is redundant. They begin to see their own instruction within the context of the whole school, as experienced by students. They become collectively responsible for the learning of all students. Curriculum design opens dialogue and focuses attention on the school as an educational unit rather than a loose coupling of classrooms.

REFERENCE