Teaching as Jazz

Like jazz musicians, great teachers blend sounds from different traditions, hear and echo students' rhythms, and improvise on a dime.

Carol Ann Tomlinson and Amy Germundson

ears ago, we worked with a young woman who wrote the most beautiful curriculum. When other teachers read her work, they felt both humbled and charged up, ready to create something new and compelling for their students. Interestingly, however, our colleague was a mediocre teacher and didn't stay long in the profession. She once said, "I like thinking of ideas, but I lack the energy to sell them to teenagers." Her comment reflects a key reality: Even exemplary curriculum remains flat on the page if it's all the teacher has to offer. Our colleague excelled at one of the practices teachers must fuse to teach creatively, but she fell short in other elements essential to the teaching mix.

Teaching well, we believe, is like creating jazz. Jazz blends musical sounds from one tradition with techniques and theories from another. It uses blue notes for expressive purposes and syncopation and swing to surprise. It incorporates polyrhythm. It uses call-and-response, in which one person comments on the expression of another. And it invites improvisation—a state that indicates a personal awareness of the moment and an understanding that allows for a range of expressions to fit the situation.

Teaching, too, makes music with the elements at the teacher's disposal, merging them just so to ensure a compelling and memorable sound. Like jazz, great teaching calls for blending different cultural styles with educational techniques and theories. It requires recognizing that there are independent rhythms in the classroom. Most of all, great teaching demands improvisation in how teachers invite an array of young lives into the music with us. Different teachers create jazz in different ways in the classroom. But excellent teachers always create it.



Four Elements of Quality Teaching

Real teaching is the servant of real learning. A great teacher can't settle for less than reconfiguring the minds of students in ways that make them more fully human. Doing so day after day calls on the teacher to combine four essential elements in a jazzlike fusion: curriculum, connections with students, instruction, and assessment. At any given moment, one element may be in the forefront, but the others must be nearby, about to enter into the mix.

Curriculum with the Soul of Jazz

Jazz emerges not from a list of names, dates, facts, and terms, but from a longing that springs from a connection or a need to make one. Our teaching was turned on its head by reading Phil Phenix's (1964) ideas about asking the big questions. Phenix said that once human beings evolved to a point when they no longer had to spend all their time building fires and slaying dinner, they began to seek answers to a single question. To this day, he says, we are born—and we die—asking, "What is life, and who am I in it?" Human beings developed the disciplines of history, the arts, English, science, and math to answer that question.

The great questions want to be answered in each of us. We almost can't help but attend when those questions are raised. To teach is to help our students raise questions they care about and to set out together to look for answers.

To create curriculum with the soul of jazz—curriculum that gets under the skin of young learners—we must hunt for big ideas embedded in the lists of content that often parade as curriculum (Wiggins & McTighe, 1998). We must share these big ideas with our students and invite them to hunt for more or better ideas with us. We must then arrange what we teach to represent the concepts and principles around which experts organize the disciplines (Erickson, 2006). And we need to help students make connections by seeing how concepts and principles both change and stay the same within and across times, places, and disciplines and how the same concepts that help students make sense of history or science can help them make sense of themselves (Tomlinson et al., 2001).

Curriculum that brings soul to the music helps kindergartners see that a change in their lives is something like a change in the weather or the change that happens in a story.

Curriculum with soul helps 1st graders answer the question, "What is a true friend?" when they read *Frog and Toad Are Friends*, and answer it years later reading *A Separate Peace* in high school, and yet again when they study international relations in college.

Curriculum with soul lifts the concept of witch hunts from the pages of *The Crucible* to the study of American history, to the evening news, to the school cafeteria, and to the dark corners of our own minds.

Curriculum that brings soul to the music doesn't neglect the details of content. It helps students see a reason for these details and makes them memorable, useful, and transferable.

Such curriculum is fundamental to the jazz of teaching and learning. But, as shown by our colleague who could create a stellar curriculum but faltered in implementing it, curriculum is not enough.

Connecting with Students as the Reason for Jazz

Connections with students drive the jazz of teaching. It's far more fulfilling to listen for and respond to the multiple rhythms that students bring into the classroom than to see students as essentially interchangeable and unknowable. Students need connections to learn and so do teachers.

From a student's perspective, the keen

interest of a teacher is an affirmation of personal worth. It is an invitation to learn-a bridge between security and the unknown. Students learn best when they feel appreciated, acknowledged, respected, and validated (Lambert & McCombs, 1998). For many students, a positive relationship with a teacher provides motivation to learn (Fullan, 2001). From a teacher's perspective, it's difficult to teach a student whose character remains amorphous in your thinking. It is virtually impossible to make things relevant for or expect personal excellence from a student you don't know (Littky & Grabelle, 2004).

There is a deep power for teachers in connecting with students. Teaching is relentlessly demanding, full of details that multiply faster than the teacher can attend to them. Without some source of rejuvenation, teaching can consume the teacher. The same can be said of parenting: Parenting is exhausting but also renewing because of the love and responsibility parents feel for their children. Teachers don't, of course, feel parental love for their students. But when we connect with a student, we know that student in enough depth to see his or her vulnerabilities and to see how our teaching can contribute to that student's well-being. We accept responsibility for the student. With such a connection, teaching becomes a renewing as well as depleting profession. There is then something essentially human at the core of straightening books, making small talk with students, grading papers, and planning for tomorrow's lesson.

Instruction as the Expression of Jazz

If creating curriculum is composing the melody line for the jazz of teaching, and connecting with learners is finding the underlying reason for the jazz, instructing is making the music. Instruction is about connecting content with human beings, sharing ideas that matter with people who matter. Teaching without a sense of interdependence with students can be like practicing piano scales day in and day out—rote, routine, leaving little room for discovery. Teaching becomes an art when the teacher is struck by the power of curriculum to dignify a life and by students' need for that dignity.

The melody line notwithstanding, the teacher must find some way to move the student with the music. Maybe the simultaneous sounding of two or more rhythms will do it. Perhaps syncopation or swing is called for, or call-andresponse. The teacher throws out a line of music. For learning to happen, the Assessment as the Refinement of Jazz Educators now understand the role of assessment in teaching and learning in a more expansive way than in the past. Time was when assessment was a judgment of learning. Necessary as it is to figure out what a student understands and can do, that kind of assessment has an ominous finality about it. A teacher may see who "got it" and who didn't but it's time to move on. Other than passing judgment, such assessment of learning has little to offer either teacher or student.

We have more recently begun to think about assessment *for* learning and

Teaching makes music with the elements at the teacher's disposal, merging them just so to ensure a compelling and memorable sound.

student must respond with a personal commentary or connection. Teaching requires two-way communication. To instruct well is to be keenly aware of context and to develop a range of options to reach a given student in a given moment.

For example, a teacher might introduce images and sounds of the ocean at rest and of the ocean's fury to help landlocked students who have never seen the ocean gain a sense of its power. Students could respond to the images by proposing an extended analogy for the ocean's shifting energy—such as shifting moods in music, alternating game plans while playing a sport, or fluctuating human emotions.

Differentiated instruction (Tomlinson, 2003) is a jazzlike approach. The teacher who uses differentiation in practice says, "Whatever it takes to ensure success for each student, I'm willing to try." In those moments of purpose, sensitivity, and improvisation, jazz happens. even assessment as learning (Black, Harrison, Lee, Marshall, & Wiliam, 2003; Earl, 2003). To assess for learning, teachers check more frequently to see where students are in their learning journey-and check with broader goals in mind. Teachers preassess before they launch a unit of study to determine students' starting points and readiness. They assess as they teach to chart student progress (Tomlinson, 1999, 2003). Insights from these assessments help teachers understand and adjust instruction so that key curricular goals are accessible to each learner. The teacher is the chief learner, whose purpose is to make learning a better fit for all.

Assessment *as* learning suggests something even richer: Teachers create and use assessments as teaching tools as well as measurements. For example, in a math unit on measurement, Mr. Tyler had students work in teams to propose a plan for a zoo housing elephants, apes, snakes, birds, and tropical fish, using a prescribed area. Students had to take into account the animals' needs for both space and water. Mr. Tyler observed students as they worked, noting areas in which they misunderstood concepts. Before students finalized their plans, he led the class in a problem-solving session in which he guided students to clarify ideas and skills that they had not fully grasped and that were sticking points.

This latter view of assessment evokes jazz. Assessment *as* learning is a teacherstudent partnership in the service of learning, a sort of call-and-response. Teacher and student reflect on how the music is evolving, and they improvise cells and answered questions from a textbook. Although the majority of students usually performed satisfactorily on the accompanying quiz, they had trouble retaining the information over time and saw little meaning in the content.

Over time, Ms. Cortina's approach to teaching and curriculum has changed. In all classes, she now helps students look for big ideas behind the content, making it easier for students to grasp the material. She helps students see connections between the big ideas and their own lives, and she finds satisfaction in knowing her students so well that she understands their interests and and the role of integrated parts in a living system.

Ms. Cortina now begins the cell unit with a pre-assessment to determine students' prior knowledge of the structure of organelles (specialized parts of a cell) and the function of organelles within a biological system. Information from this assessment generally shows that students have a wide range of understanding related to the factual information, but that students can't yet make powerful connections between key concepts.

Ms. Cortina uses this information and knowledge of her students' interests to design learning activities. She

To the doctor, the child is a typhoid patient; to the playground supervisor, a first baseman; to the teacher, a learner of arithmetic. At times, he may be different things to each of these specialists, but too rarely is he a whole child to any of them. – 1930 White House Conference on Children and Youth

and refine it based on what they learn. Assessment becomes a way to increase all players' awareness and deepen the quality of the expression that follows.

What It Sounds Like

So what does it sound like when a teacher makes jazz in the classroom when he or she calls on the elements of quality teaching while playing off students' unique rhythms and improvising as needed? To make the abstract analogy of teaching as jazz accessible, let's look at how a 9th grade biology teacher we have worked with makes a potentially dry unit on cells into an engaging exploration worthy of comparison with the hottest jazz.

Ms. Cortina previously taught her unit on cells conventionally, through a lecture on the major cell parts and their functions. As a follow-up, students labeled models of plant and animal can make such connections spontaneously. She uses assessment to gauge student progress, which enables her to adapt instruction to suit their varied needs. Ms. Cortina's unit on cells, therefore, has taken on a different quality.

In designing revised curriculum for her unit, Ms. Cortina used the concepts of structure, function, and systems as lenses through which students can view the content. Not only are these concepts central to the field of biology-so that she can return to them throughout the year-but they also serve as organizing themes. Students arrange and make sense of factual information about cells according to these themes, just as jazz musicians arrange improvisations against background themes. Ms. Cortina wants students to understand the cell as a system with interdependent parts and to arrive at big ideas about the relationship between structure and function

begins the unit with a whole-group discussion of the terms structure, function, and system. She asks students to propose scientific meanings for these concepts but also to consider what the concepts mean in everyday life. Students meet briefly in studentselected groups centered on shared interests. They discuss how structure, function, and systems operate within such areas of interest as school, musical groups, or sports, guided by a discussion protocol to ensure that they focus on the essential concepts. While the groups talk, Ms. Cortina moves among them and jots down notes about what she hears-the rhythms and melodies sounding through student discussionwhich she can draw on later in class to link content to student experiences.

Next, she presents an overview of the major cellular organelles in both plant and animal cells to ensure foundational

knowledge. Throughout the presentation, she poses questions that encourage students to generalize about the relationships between structure, function, and systems in various realworld situations and in cells. For example, she asks students to consider the structure and function of Hogwarts (the school in the Harry Potter books) and to make comparisons with the structure and functions of a cell.

Ms. Cortina heterogeneously groups the students and gives them electron microscopy images of cellular organelles. Each group is given the task of examining the structure behind the function of each organelle and constructing and justifying a classification system for each organelle based on its structure and function. To assess understanding, each student constructs a Venn diagram comparing and contrasting the cellular organelles of plant and animal cells and explaining why each type of cell requires a different arrangement of organelles to function.

In another lesson, Ms. Cortina groups students by the level of understanding of the material they show. All groups examine cellular organelles as integrated parts of a living system using activities matched with their learning needs. Students who are not yet showing mastery of essential information and concepts reinforce their understanding by constructing a threedimensional model or diagram that specifically shows how individual organelles work together as a system. Students with more advanced understanding add to this assignment the task of looking at differences in system function across different types of cells. such as muscle or bone cells.

The music arranged and played by Ms. Cortina—and teachers like her—is neither the brash sound of a marching band nor the splash of an orchestra. It's the sound of a teacher working in a setting attuned both to individuals and ideas. Curriculum centers on a search for meaning. Knowing students as individuals motivates both teacher and students to do the hard work of making meaning. Instruction becomes a vehicle for ensuring learning among diverse individuals. Assessment informs the process. It sounds a lot like jazz.

References

- Black, P., Harrison, C., Lee, C., Marshall, B., & Wiliam, D. (2003). Assessment for learning. New York: Open University Press.
- Earl, L. (2003). Assessment as learning: Using assessment to maximize student learning. Thousand Oaks, CA: Corwin.
- Erickson, H. (2006). Concept-based curriculum and instruction for the thinking classroom. Thousand Oaks, CA: Corwin.
- Fullan, M. (2001). The new meaning of educational change (3rd ed.). New York: Teachers College Press.
- Lambert, M., & McCombs, B. (1998). How students learn: Reforming school through student-centered education. Washington, DC: American Psychological Association.
- Littky, D., & Grabelle, S. (2004). The big picture: Education is everybody's business. Alexandria, VA: ASCD.
- Phenix, P. (1964). Realms of meaning. New York: McGraw-Hill.
- Tomlinson, C. (1999). The differentiated classroom: Responding to the needs of all learners. Alexandria, VA: ASCD.
- Tomlinson, C. (2003). Fulfilling the promise of the differentiated classroom: Strategies and tools for responsive teaching. Alexandria, VA: ASCD.
- Tomlinson, C., Kaplan, S., Renzulli, J., Purcell, J., Leppien, J., & Burns, D. (2001). The Parallel Curriculum Model: A design to develop high potential and challenge high ability learners. Thousand Oaks, CA: Corwin.
- Wiggins, G., & McTighe, J. (1998). Understanding by design. Alexandria, VA: ASCD.

Carol Ann Tomlinson (cat3y@virginia .edu) is Professor of Educational Leadership, Foundation, and Policy at the University of Virginia in Charlottesville. **Amy Germundson** (ajg5w@virginia.edu) is a doctoral student at the University of Virginia's Curry School of Education.

Standards-Based Lessons Help Teachers Use Manipulatives Successfully!



Research proves that teaching with manipulatives increases test scores and helps students grasp abstract concepts!

Use the step-by-step, manipulative-based lessons in Hands-On Standards, Deluxe Edition to—

- Promote hands-on learning
- Reach students with diverse learning styles
- Connect mathematical concepts to real-world applications

Download a FREE sample lesson at www.etacuisenaire.com/edleader



800-445-5985

Copyright of Educational Leadership is the property of Association for Supervision & Curriculum Development and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.