

The World Is Integrated!

by Dennis Littky and Samantha Grabelle

Many people talk about how difficult it is to implement an integrated curriculum. That is ridiculous! The *world* is integrated! What is difficult is what schools do every day when they unravel the world and all its vast knowledge and separate it into boxes called "subjects," which are not separate in the real world. What is science without math? What is history without language? What are languages without their history?



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I'm not sure many people even know how we got into this mess. In 1892, the NEA's National Council formed the Committee of Ten. With the president of Harvard as chair, and the other nine members from the other elite institutions of the time, this tiny group created standards for every high school in the nation. They proclaimed exactly what subjects students should be taught and in what order. The directives they laid out became the document that the *Historical Dictionary of American Education* explains "substantively affected the secondary curriculum for at least a generation, if not to the present day."¹ This is the archaic piece of paper that most schools still use, without even knowing it, as the basis for their rigid curricula. And, sadly, it is the document that holds so much power that to this day we are still trying to figure out how to put the world they pulled apart back together again.

At The Met in Providence, R.I., and the Big Picture Schools across the United States, that is exactly what we strive to do. Rather than subjects, our "curriculum" is based on five learning goals that we believe are the skills students need to master to be successful in college and the work world: communication, social reasoning, quantitative reasoning, empirical reasoning, and personal qualities (see *box*, p. 5). We start with a topic the student is interested in. Then, through internships and real-world projects, and with the help of the teacher and the internship mentor, the student works to investigate how that topic is connected to all the learning goals.

Take Met student Nadia, who was interested in fashion and simply wanted to understand how clothes are priced. She began with an internship at a clothing store, where she used algebra and other math concepts to understand the pricing process. Later, she studied the history of fashion and examined clothes in relation to current social norms and world cultures. As her projects grew deeper, she was able to articulate the science and even computer technology involved in the making of textiles. Through her exhibitions and work with her mentors in the fashion industry, she enhanced her communication skills and learned the importance of personal qualities like punctuality and follow-through. A seemingly simple, generic concept like fashion connected Nadia's learning to every other skill we deem important for developing a well-

rounded student. Her curriculum was integrated because fashion is part of an integrated world.

Another student, Ramon, was fascinated with music and never went anywhere without his headphones and CDs. The business aspect of the music industry really captured his interest, and through this, he learned about geography by studying regional sales breakdowns; math by making supply-and-demand calculations; and history by investigating the roots of hip-hop music.

Tools used by all students at The Met, the "Supercalendar" date book for instance, allow them to work on the real-world skills of punctuality, time-management, multitasking, and personal responsibility for their learning. Student journaling adds another layer of self-reflection to their education. And at quarterly exhibitions—the interactive sessions where students share their knowledge and reflections and receive feedback from teachers, peers, and families—students gain a better understanding of their progress and needs for each of the five learning goals.

Paths to Integration

Now, I realize that real-world internships and student-directed projects are difficult (to say the least) within the constraints of No Child Left Behind, state and local standards, and schools that are much too large to effectively approach education "one student at a time," the way we do at The Met and Big Picture Schools. But there are ways to fulfill the demands of subject area standards while still giving students (and teachers) room to think and make their own connections.

One way is for a group of teachers to come together from different disciplines and choose a topic or essential question around which they will all center their students' learning. For example, a question like "What is power?" could lead to literature readings, historical studies, quantitative analyses, and even empirical experiments—all of which could cover the required content while still integrating the students' learning from classroom to classroom. Another essential question could be "What is a hero?" Imagine the implications for the teaching of science, math, literature, and history. And imagine the connections students will be able to make with their own lives and understanding of the word *hero*.

Another idea is for an individual teacher to take it upon himself to make his curriculum more theme-based, allowing for integration of other disciplines and content. For example, the study of World War II in a history class does not need to be limited to the social and historical ramifications. What about the scientific developments that were influenced by the war? Or the literary figures who emerged during that time period?

The point here is that even in an educational system where our hands are so often tied by the standards, one hand can break free to put the learning in the context of the real world in which it occurs, and, more important, to make the learning interesting and relevant for the students. There is nothing sadder to me than the survey Ron Wolk discussed in a 2001 article for *Teacher Magazine*. The survey asked kids to pick a word that best described their school experiences. "Boring" was the number one answer.² I would be bored, too, if every experience I had was only within one subject area and lasted just 45 minutes, and I never learned how to connect one experience to another.

The world we live in is integrated. It is only schools that insist on pulling it apart. If you ask

any kid what she is really interested in, you end up in an ideal position to encourage her to make connections between her passions and the same subjects and skills you have been trying to teach her all along. Recently, I was talking to a 9th grade student who was excited about the Boston Red Sox winning the World Series. Immediately, I got excited about all the ways to connect him and his passion for baseball to other kinds of learning—everything from cultural and racial history, probability, and literature to whether there is any scientific evidence to support the so-called Curse of the Bambino. To me, it is a lucky teacher who has the opportunity to watch a child like this explore the integrated world in which he lives.

The Five Learning Goals

The Met's five learning goals are the skills students need to master to be successful in college and the world of work. The questions under each goal can help students use the learning goals as a framework to help students explore and channel their curricular interests.

- 1. Communication: How do I take in and express ideas?**The goal helps the student be a great communicator: to understand your audience; to write, to read, to speak, and listen well; to use technology and artistic expression to communicate; and to be exposed to another language.**Questions used to develop a student's project integrating communication include**
 - How can I write about it?
 - What is the main idea I want to get across (thesis)?
 - Who is my audience?
 - What can I read about it?
 - Who can I listen to about it?
 - How can I speak about it?
 - How can technology help me to express it?
 - How can I express it creatively?
 - How can I express it in another language?
- 2. Social reasoning: What are other people's perspectives on this?**The goal is to think like an historian or anthropologist: to see diverse perspectives, to understand social issues, to explore ethics, and to look at issues historically.**Questions used to develop a student's project integrating social reasoning include**
 - How do diverse communities view this?
 - How does this issue affect different communities?
 - Who cares about this? To whom is it important?
 - What is the history of this? How has this issue changed over time?
 - Who benefits and who is harmed through this issue?

- What do people believe about this?
- What social systems are in place around this?
- What are the ethical questions behind this?
- What do I think should be done about this?
- What can I do?

3. **Quantitative reasoning: How do I measure, compare, or represent it?** The goal is to think like a mathematician: to understand numbers, to analyze uncertainty, to comprehend the properties of shapes, and to study how things change over time.

Questions used to develop a student's project integrating quantitative reasoning include

- How can I use numbers to evaluate my hypothesis?
- What numerical information can I collect about this?
- Can I estimate this quantity?
- How can I represent this information as a formula or diagram?
- How can I interpret this formula or graph?
- How can I measure its shape or structure?
- What trends do I see? How does this change over time?
- What predictions can I make?
- Can I show a correlation?

4. **Empirical reasoning: How do I prove it?** The goal is to think like a scientist: to use empirical evidence and a logical process to make decisions and to evaluate hypotheses. It does not reflect specific science content material, but instead can incorporate ideas from physics to sociology to art theory.

Questions used to develop a student's project integrating empirical reasoning include

- What idea do I want to test?
- What has other research shown?
- What is my hypothesis?
- How can I test it?
- What information (data) do I need to collect?
- How will I collect the information?
- What will I use as a control in my research?
- How good is my information?
- What are the results of my research?
- What error do I have?
- What conclusions can I draw from my research?

- How will I present my results?
5. **Personal qualities: What do I bring to this process?** The goal is to be the best you can be: to demonstrate respect, responsibility, organization, and leadership and to reflect on your abilities and strive for improvement. **Questions used to develop a student's project integrating personal qualities include**
- How can I demonstrate respect?
 - How can I empathize more with others?
 - How can I look out for my health and well-being?
 - How can I communicate honestly about this?
 - How can I be responsible for this?
 - How can I persevere at this?
 - How can I better organize my work?
 - How can I better manage my time?
 - How can I be more self-aware?
 - How can I take on more of a leadership role?
 - How can I work cooperatively with others?
 - How can I enhance my community through this?

ASCD Resource

The Big Picture: Education Is Everyone's Business

by Dennis Littky and Samantha Grabelle

Learn about how small public schools like The Met in Providence, R.I., and others, carry out that philosophy in practice. Discover how a philosophy of personalized learning—one student at a time—is the key to creating schools where motivated students are engaged in a meaningful curriculum, and academic progress is measured against real-world standards.

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Endnotes

¹ Altenbaugh, R. J. (Ed.). (1999). *Historical dictionary of American education*. Westport, CT: Greenwood Press, p. 90.

² Wolk, R. (2001, December/January). Bored of education. *Teacher Magazine*, 13(3), 3.

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