It seems only fitting to explore the role of questions in education by asking questions about the process of doing so. I propose that we start with the customary way of framing this topic and then proceed to questions that are deeper and potentially more subversive of traditional schooling.

1. WHICH QUESTIONS?

To begin, let’s consider what we might ask our students. The least interesting questions are those with straightforward factual answers. That’s why a number of writers have encouraged the use of questions described variously as “true” (Wolf, 1987), “essential” (Simon, 2002), “generative” (Perkins, 1992; Perrone, 1998), “guiding” (Traver, 1998), or “fertile” (Harpaz & Lefstein, 2000). What the best of these share is that they’re open-ended. Sometimes, in fact, no definitive right answer can be found at all. And even when there is one – or at least when there is reason to prefer some responses to others – the answer isn’t obvious and can’t be summarized in a sentence.

Why is it so hard to find a cure for cancer? Do numbers ever end? Why do people lie? Why did we invade Vietnam? Grappling with meaty questions like these (which were among those generated by a class in Plainview, NY) is a real project . . . literally. A question-based approach to teaching tends to shade into learning that is problem-
(Delisle, 1997) and project-based (Kilpatrick, 1918; Blumenfeld et al., 1991; Wolk, 1998). Intellectual proficiency is strengthened as students figure out how to do justice to a rich question. As they investigate and come to understand important ideas more fully, new questions arise along with better ways of asking them, and the learning spirals upwards.

Guiding students through this process is not a technique that can be stapled onto our existing pedagogy, nor is it something that teachers can be trained to master during an in-service day. What’s required is a continual focus on creating a classroom that is about thinking rather than just absorbing information. Of course one always thinks about something—learning isn’t content-free—but the ultimate goal isn’t mostly to acquire knowledge (which can always be looked up). “Knowing the right answer is overrated,” says Eleanor Duckworth (1987, p. 64), professor emerita at Harvard University. It “requires no decisions, carries no risks, and makes no demands. It is automatic. It is thoughtless.”

Thus, every time we ask students “What was the name of the town in which the characters in this story lived?” we leave less time for questions like “Why do you think the characters never left home?” Every minute they’re forced to spend memorizing the definition of a word (“What does nationalism mean?”) is a minute not spent wrestling with ideas (“What would the world be like if there were no countries?”). It’s important to “push beyond the factual,” says Dennie Palmer Wolf (1987), but unfortunately “extended stretches of questioning in which the information builds from facts toward insight or complex ideas rarely take place” in many classrooms.

By the same token, if we’re still using tests (Kohn, 2015) rather than authentic assessments of their understanding, we’re giving them a gift of meaningful questions with one hand only to take it away with the other (by evaluating them on the number of facts they’ve crammed into short-term memory).

Deep questions help kids to stay curious, grow increasingly resourceful at figuring things out, and become active meaning makers.
To structure learning around such questions is to take the first step toward creating an environment that is not merely academic but genuinely intellectual.

2. WHOSE QUESTIONS?

It makes good sense to create thoughtful questions for students, but it’s even more important to elicit their questions — a possibility missing from many resources on the subject. Teaching, like parenting and managing, is greatly improved by following a four-word admonition: Talk less, ask more. And better than asking subject-matter questions is the process of encouraging kids to come up with the questions that matter to them. If this is more the exception than the rule in our classrooms, it may be because it requires us to give up some control.

There is a purely practical justification for asking students what they’re curious about: Even a marvelously gifted teacher can’t always figure out the right question to ask a given student at just the right time, as Duckworth (1987, p. 5) pointed out. Thus, she added, it’s fortunate that “children can raise the right question for themselves if the setting is right.” As a result, “they are moved to tax themselves to the fullest to find an answer.” By inviting their questions, we unleash the power of intrinsic motivation because all of us tend to develop more enthusiasm for, and ultimately become more skillful at, pursuing questions about which we’re genuinely curious than those handed to us by someone else.

This may explain the National Research Council’s (1996, p. 31) declaration that “inquiry into authentic questions generated from student experiences is the central strategy for teaching science.” (By “is,” we can assume they meant “should be.”) And their conclusion is by no means limited to science.

In more traditional classrooms, students are rarely asked what they’ve been wondering about. “Teachers tend to monopolize the right to question; rarely do more than procedural questions come from students,” says Dennie Palmer Wolf (1987). And interests students do reveal are sometimes dismissed. Susan Engel (2011, p. 626), a developmental psychologist at Williams College, observed an elementary
school teacher who set up a hands-on activity for her students but then insisted they use the equipment only to complete her assignment. “OK, kids, enough of that,” she reprimanded a group of children who were figuring out different uses for a bar with a spring scale attached. “I’ll give you time to experiment at recess. This is time for science.” Engel commented: “Just as the children became interested in formulating and answering their own questions — when curiosity, the mechanism that underlies the best learning — kicked in . . . she stopped them.”

The point here isn’t that a teacher must wait for students to come up with questions and then sit back while they answer them. Progressive education is defined by active and artful adult involvement, which is more challenging than telling kids what to do, on the one hand, or letting them teach themselves, on the other. In the Reggio Emilia model of early-childhood education, for example, “children are involved right from the start in defining questions to be explored” (Edwards et al., 1993, p. 193), but teachers then help to clarify, amend, and reformulate those questions, sometimes combining one child’s with another’s — which, incidentally, offers a strong argument for learning in groups.

Reggio educators use the metaphor of having a teacher catch a ball thrown to them by the children (their original question) and then toss it back (after having helped to sharpen that question). Much of the learning results from this back-and-forth process, not just from the subsequent search for answers — which is why the formulation and reconsideration of students’ questions shouldn’t be rushed.

And just as the National Research Council’s prescription applies to all subjects, so the co-construction of knowledge described by Reggio educators benefits students of all ages.

3. QUESTIONS USED FOR WHAT?

John Dewey (1899/1990, p. 34) described “the old education” as an approach in which “the center of gravity is outside the child. It is in the teacher, the textbook, anywhere and everywhere you please except in the immediate instincts and activities of the child
himself.” Students are expected to do whatever they’re told, to accommodate themselves to a curriculum that was created by adults who never met them. By contrast, the best sort of education—which is not only more respectful of children but far more effective—takes its cue from the interests of those who are being educated. The center of gravity is in the kids; their purposes and interests are our point of departure.

To take this premise seriously requires us to look beyond how thoughtful the questions are or even who asked them. Important as these criteria are, neither of them gets us very far if the exploration that results is incidental rather than integral to most of what happens in school. The curriculum is centered on kids’ questions.

Consider the use of “K-W-L” charts in which students are asked to consider what they already know about a particular topic, what they’d like to know more about, and then, later, what they learned (Ogle, 1986). Done well, this can be a helpful strategy, particularly if, as its inventor recommended, it reminds teachers that “learning shouldn’t be framed around just what an author chooses to include, but ... involves the identification of the learner’s questions and the search for authors or articles dealing with those questions” (p. 569). Too often, though, students are pushed to come up with questions on the spot rather than given sufficient time to reflect on what they’d really like to know. Worse, those questions may then be ignored. I remember visiting a school in Massachusetts where a science unit on the human body had been kicked off with the students’ (fascinating) questions. The teacher proudly posted the resulting list on the wall—and then proceeded to teach the unit exactly the way she had originally planned.

Of course if the lesson itself is created by students’ questions, then they can’t be ignored. James Beane (1997), working with his wife, Barbara Brodhagen, designed a model for middle schools that asks students at the beginning of the school year to ponder things they wonder about themselves (How long will I live? Will I be like my parents?) and then to meet in small groups to find points of overlap among their separate questions. They then repeat the process for
questions they have about the world (Why do people hate each other? How did religions evolve?), before comparing the two sets of topics to see where they overlap. Finally, as a whole class, students try to reach consensus on broad areas of shared interest – and, with the teacher’s help, they design units of study to answer their questions.

These investigations, on themes such as “Living in the Future” or “Conflict and Violence,” form the basis of the entire year’s course of study, during which they draw as necessary from (and weave together) virtually all the conventional disciplines. Experience with this method suggests that students at an age often regarded as particularly challenging to teach become highly motivated scholars because the curriculum is centered on questions – indeed, on their questions – “rather than on the mastery of fragmented information within the boundaries of subject areas” (p. 18).

Thoughtful practitioners and theorists who recognize the value of turning students’ questions into the engine that drives instruction tend to be deeply skeptical of the predominant model of school reform, which relies on top-down, one-size-fits-all standards. This model has reached its apotheosis in the Common Core, which illustrates a tendency to confuse excellence with uniformity (Karp, 2013/2014; Kohn, 2010; Shannon, 2013). Many educators object not only to the high-stakes tests that are attached to the standards or the unprecedented role of the federal government and corporate foundations in the whole enterprise, but to the pedagogical model that underlies such initiatives. The first response of any thoughtful teacher or administrator when presented with something like the Common Core is not “How do we implement this?” but “Should we be doing this at all? Do such standards make it easier or harder to create lessons where students’ questions are at the center?”

To be sure, it is often possible to find connections between the projects that grow from students’ questions and standards that have been imposed from above. Deal & Sterling (1997) offer one example: Kids wonder why Ivory soap floats while other soaps sink, and the teacher can link their investigation to a mandated unit on density and mass. But there is a critical difference between, on the one hand,
starting with students’ questions and then reassuring one’s superiors that the resulting exploration overlaps with prescribed standards, and, on the other hand, starting with (that is, organizing one’s teaching around) a list created by distant authorities and occasionally attempting to enliven those curriculum units by asking kids to suggest some questions. The former is authentic teaching supplemented with a strategy of self-protection; the latter is an abdication of our educational responsibility.

4. QUESTIONS ASKED FOR WHAT PURPOSE?

In the final stage of this progression, we consider not only the best way to create student-centered inquiry (thereby supporting the development of those students as learners) but how to foster a lifelong disposition to question what one has been told (thereby supporting their development as participants in a democracy and as human beings). The latter doesn’t refer to a bundle of skills, such as those identified with “critical thinking,” but to whether and how one is inclined to use one’s skills.

To promote the idea of questioning is to swim against the tide. From their first days in school, students are carefully instructed to do what they’re told and stay out of trouble. There are rewards, both tangible and symbolic, for those who behave “properly” and penalties for those who don’t. Children are trained to sit still, copy down and memorize what the teacher and textbook say, and regurgitate it on command—all of which fosters a tendency to avoid questioning and a reluctance to express outrage even about outrageous things.

Nevertheless, teachers with the commitment—and sufficient courage—to challenge these norms can make use of multiple strategies (Kohn, 2004):

* Set up regular opportunities to cultivate skepticism. Former high school history teacher Jim Nehring (personal communication, 2004) photocopied four different textbooks’ accounts of the Salem witch trials, which provided strikingly different explanations, each in a tone of absolute certainty. The result for students wasn’t just a deeper understanding of the event but a realization that one shouldn’t
uncritically accept textbooks or other authoritative pronouncements.

* Explicitly invite students to ask probing questions — and model this by inviting them to challenge you. Allowing them to meet first in small groups offers a chance “to gain confidence and to develop a position collectively . . . so there is less chance of students being silenced by the teacher’s . . . comments on the issue” (Shor, 1992, p. 71). Frank Smith (1986, p. 201), meanwhile, recommends bringing a second adult into the classroom, someone with a different point of view, in order to remind students that the teacher’s perspective isn’t the last word.

* Highlight examples of dissent in teaching various topics, so students learn about people who have overturned established ways of painting or governing or thinking about the natural world. Emphasize issues where experts still disagree or are uncertain.

* Help students realize that, even with respect to basic facts and skills, many things we accept as givens could be otherwise. It’s helpful to know how many ounces are in a pound, but it’s much more important to understand the lack of any transcendent rationale for dividing up a pound that way or for using pounds as a unit of weight in the first place. So, too, can children be reminded how arbitrary the “correct” — which is only to say, conventional — spellings of words really are.

Questions can reflect not only a curiosity about the world but a desire to make the world better. To that extent, it’s vital to reflect on — and share with students — what we (as adults) ask and why. There is evidence that an adult’s expression of curiosity can be contagious, such that children will explore more on their own than will those with teachers who seem to lack curiosity (Engel, 2011; Johns and Endsley, 1977). The same may be true for modeling skepticism: We can set an example by being willing to ask whether a rule makes sense, whether an institution is legitimate — rather than just accepting unjust policies as “a part of life.” If it’s possible that our students are damaged by
dubious educational mandates, then the ultimate challenge for us as educators is: How willing are we to go beyond the details of implementation and ask whether the whole arrangement makes sense, and, if not, what we can do about it?

REFERENCES


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