

# Challenging Students . . . And How to Have More of Them

By Alfie Kohn

Learning by doing, a common shorthand for the idea that active participation helps students to understand ideas or acquire skills, is an established principle of progressive education. Much less attention, however, has been paid to the complementary possibility that teachers are most effective when they show rather than just tell. In fact, this idea doesn't even seem to have a name — so let's call it "teaching by doing" (TBD).

## Taking Children Backstage

One version of TBD has gained favor in the field of writing instruction,[1] where teachers are urged to reveal their own rough drafts — or, better yet, write things in front of students. It's one thing to analyze the techniques of a story or an essay, a finished product, but it's something else again to observe the process of writing. Particularly if the teacher/writer is narrating, explaining the rationale for choosing this word or that sentence structure, students can witness the false starts, the way errors are made and corrected. In short, they can watch a piece of writing come into being.

There doesn't appear to be much talk about TBD (by any name) in other disciplines; in any case, no one has attempted to connect what may be going on elsewhere with what the writing teachers are doing. But one group of math researchers did comment in passing that "few students get the opportunity to see their teachers engaged in mathematical practice." They went on to cite Berkeley professor Alan Schoenfeld as an impressive exception for inviting his students to bring in problems that he and they could tackle together.[2] Indeed, the wisdom of doing so applies to other fields, too, and shouldn't be limited to graduate seminars. Why, for example, shouldn't students of any age be able to watch their teachers wrestle with meaningful science problems?

It's not unusual, of course, for math teachers to walk students through the steps of solving for  $x$ , just as science teachers often do demonstrations to illustrate various laws and principles. But this is teaching by means of scripted performance. It's a matter of going through the motions to show that following certain procedures will produce predictable results. Students are then instructed to imitate what they've seen.

What intrigues me, by contrast, is having a science teacher actually conduct a public experiment, one that students may have helped to design and one whose outcome is uncertain. In such classrooms, teachers can be heard to say things like: "I'm not sure what's going to happen here, but let's take a stab at it." Those who teach science by

doing science spend a lot of time erasing or crossing out, as do their colleagues who teach writing by writing.

That there are similarities between what's done in language arts and in science or mathematics isn't so surprising. But it occurs to me that one might also draw a parallel between teaching any academic subject and teaching morality. It's widely accepted that, in order for children to learn to be good people, they should be *shown* how to act. Parents in particular try to set an example by the way they treat others. And, indeed, some studies suggest that children are more likely to donate to charity if they've watched someone else do so. On the other hand, modeling doesn't always work on its own. In fact, there is evidence that "exposure to paragons of helpfulness may undermine the intrinsic motivation to help."<sup>[3]</sup> Young adults who watched highly helpful people came to view themselves as less altruistic.

Part of the problem is that modeling is a concept rooted in behaviorism. It began as a refinement of the principles of operant and classical conditioning. Those principles couldn't account for the fact that people sometimes learn from what they've observed, acting in ways for which they themselves received no reinforcement. But modeling, like reinforcing, is just another technique for getting someone to behave in a particular way; it doesn't necessarily promote a dedication to, or an understanding of, that behavior. Because mere imitation doesn't achieve those more ambitious goals, we need to supplement the showing with telling — the precise inverse of what I've proposed for academic instruction in classrooms.

It may make sense not only to use explanation as a separate strategy alongside modeling, but to combine the two approaches into what might be called "deep modeling." Here, we not only set an example for children but try to make it clear to them what we're doing and why we're doing it. Verbalizing is a familiar strategy to many of us, from self-talk therapies to the technique known as "think aloud" that's intended to help students comprehend more of what they read. Deep modeling is different in that the narration is coming from someone else.

Consider the challenge of real-world ethical conundrums. It's fine for parents to try to model honesty and compassion for their children, but what happens when those two values seem to pull in opposite directions – for example, when telling the truth may hurt someone's feelings? Similarly, it's easy to say that kids should look out for other people's interests, but to what extent must they give up something they enjoy so that someone else will benefit?

We can let children know how *we* think (and feel) our way through similar dilemmas by describing to them the factors that we consider in making such decisions: the relevance of our previous experiences, the principles from which we're operating, and all the thoughts and emotions that we take into account. From watching and listening to us, kids not only learn more about how we try to live a moral life; they also figure out that morality is rarely cut-and-dried.

Deep modeling might be thought of as a way of taking children "backstage." To that

extent, it's very much like writing — or conducting an authentic science experiment — in front of them. They're able to experience what happens before (or behind or beneath) the ethical decisions that adults make, the essays they publish, and the scientific principles they discover — all of which are usually presented to children as so many *faits accomplis*.

This has several advantages, the most obvious of which is that experiencing the process helps them to become more proficient. The main reason language arts specialists think students should have the chance to watch their teachers write is so these students will learn more about, and get better at, the craft of writing. By the same token, children presumably would become more skillful at solving math problems, or make better moral decisions, as a result of seeing how adults do those things.

Another benefit of demonstration is the possibility that students will be more likely to *want* to do what they've seen. As a rule, educational researchers and theorists are much less focused on disposition than on achievement. For every article that looks at motivational issues — students' attitudes and goals and interests — there are scores dealing exclusively with skills and outcomes. That fact helps to explain the popularity of forms of teaching and assessment that cause students to think of learning as a chore — which, paradoxically, can have devastating results on achievement over the long haul. More attention to how students feel about what they're doing could lead to innumerable improvements in instruction and curriculum. One such strategy is teaching by doing. All else being equal, a student is more likely to become intrigued about something that he or she actually sees someone do.

## **DE-MIST-IFICATION**

Enhancing skills and disposition are impressive accomplishments, to be sure, but there's something else to be gained by taking children backstage that frankly interests me even more. The third benefit is rarely discussed, possibly because it's inherently more controversial: teaching by doing can change how children regard the activity in question, the people who engage in the activity, and the very idea of authority. It has, in a word, a powerful debunking function.

When I was a teacher, I always made a point of stopping any student who used the plural pronoun when talking about a book: "They say on page 87 that. . . ." What bothered me was not the grammatical error (assuming only one person wrote the book), but the disappearance of the author into the indefinite "they." Authors are fallible and have distinctive points of view, I reminded my classes. When we lose sight of the person behind the words, we forget that those words can be challenged.

Exactly the same thing happens when students encounter a series of finished products, whether they are books, scientific laws, or ethical precepts. Thus, one solution is to allow them to watch something being written, or proved, or decided, in order to make the activity in question more accessible and less intimidating. Good writing or thinking isn't up there and out of reach, done only by others and handed down to us. Rather, it's something students realize they might be able to do themselves, even if they can't do it

all that well yet.

Equally important, the solutions, conclusions, compositions, and decisions that are set out as examples are not immune from the students' critical inspection. And by demystifying the activity, we demystify the people engaged in the activity. Or perhaps I should say "*demistify*," given that we're helping students to dissipate the fog of authority that surrounds teachers, parents, and other adults. This is only likely to happen, however, if we're willing to make it clear that we — not just those other grown-ups out there — are fallible. That's why I say that staged, scripted demonstrations won't do; kids have to see us chugging down blind alleys and shifting into reverse. John Holt lamented that we adults so often "present ourselves to children as if we were gods, all-knowing, all-powerful, always rational, always just, always right. This is worse than any lie we could tell about ourselves." In order to counteract this tendency, he continued, "when I am trying to do something I am no good at . . . I do it in front of [students] so they can see me struggling with it."<sup>[4]</sup>

What makes teaching by doing so valuable to students is precisely what leads so many adults to resist it. There's something reassuring to most of us about playing the role of the crisply competent, always authoritative Teacher-with-a-capital-T, and we're loath to relinquish it. If we take kids backstage, if we publicly work on a problem we may not be able to solve, we feel vulnerable. We fear that we may lose some control.

In fact, students, too, may resist authentic teaching — at least at first. For one thing, they may prefer to avoid unnecessary intellectual challenges such as those entailed by a more active, probing form of learning. The introduction of a nontraditional science program led one 10th grader to exclaim, "We see what all this is about now. You are trying to get us to think and learn for ourselves." Exactly right, replied the teacher, relieved and grateful that the message was getting through. "Well," the student continued, "we don't want to do that."<sup>[5]</sup>

It's not just about how much effort is required. Students may become accustomed to classrooms in which they aren't expected (or even permitted) to have much of a say about what happens.<sup>[6]</sup> And they may grow comfortable with the idea that books are sacred texts, or with the reduction of scientific discovery to the following of recipes, or with the premise that each ethical problem has a single right answer waiting to be uncovered, or even with a vision of adults as dispensers of unquestionable wisdom.<sup>[7]</sup>

It takes considerable effort, not to mention courage, to call these preferences and assumptions into question and to persuade students of the value of becoming truly critical thinkers. After all, from their first days in school they have been carefully instructed in what Philip Jackson famously called the "hidden curriculum": how to do what you'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. Students are trained to sit still, copy down what the teacher says, and run their highlighters across whatever words in the book they expect to be asked to memorize. Pretty soon, they become less likely to ask (or even wonder), "Does that really make sense?" — and more likely to ask, "Is this going to be on the test?"

As a brand-new high school teacher some years ago, I resolved to let my students know that this passivity was not what I was looking for. On my very first day, I proudly — and, given the culture of the school, somewhat defiantly — pinned a yellow button to my shirt that said QUESTION AUTHORITY. Alas, this concept was so unfamiliar to the students that some of them assumed the phrase was a descriptive label rather than an exhortation. One girl wanted to know who had appointed me the school's question authority.

This is essentially the same state of affairs that Norm Diamond, an Oregon educator and labor activist, was trying to capture when he invented a syndrome called Compliance Acquiescent Disorder (CAD). He intended it as a spoof of Oppositional Defiant Disorder (ODD), for which countless children are referred for treatment. A local newspaper ran an advertisement that itemized the symptoms of ODD (“argues with adults,” “actively defies rules”) and invited parents who thought they had such children to allow them to be given an experimental medication. In response, Diamond placed a counter-ad about CAD in the paper. An individual with this disorder, it explained, “defers to authority,” “actively obeys rules,” “fails to argue back,” “knuckles under instead of mobilizing others in support,” “stays restrained when outrage is warranted,” and so on.[8] If excessive compliance and acquiescence really were defined as a disorder, there's no telling how many millions of children would have to be treated for it. In reality, though, not only do few people regard it as a problem, but it seems to be the very point of the training the students receive.

Passivity, however, is not the only outcome of that training. We may also witness a diminution of interest in the life of the mind. Even those who are successful at playing the game of school and managing to stifle the urge to ask impertinent questions may find what they've been doing deeply unappealing on some level. If they haven't been exposed to a more active, more critical model of learning, they may well walk away from all intellectual pursuits. Another possible consequence of enforced passivity is, paradoxically, a belated revolt. Adults can get away with presenting themselves as absolute authorities for a while, but children eventually come to realize how flawed and fallible their mentors really were — or, rather, are. What follows is a painful process of disillusion, a resentful awareness of having been misled, and sometimes an exaggerated, angry, and unconstructive form of rebellion. This may happen during adolescence or much later. Even if it never happens, though, it's difficult to overstate how much damage has been done, how many opportunities have been lost, as a result of an education designed mostly to create acceptance.

### **Needed: Questioners and Challengers**

The idea that we ought to help children become more challenging, more willing to stand up to authority, will seem both curious and objectionable to adults who view kids as too rude, loud, and rebellious already. The central mission of many books (and workshops) on the subject of classroom management is to create a more efficient environment for the teacher to pursue her agenda, and that generally entails heading off inconvenient challenges from students. Of course, this tells us more about the desire for compliance on the part of the people who write and read these books than it does about what

children are like.

Part of the disagreement between those who want to see students challenge what they're told and those who think students are entirely too challenging as it is may be due not to incompatible values but to the ambiguity of words like *challenging*. I don't deny that some students are rude and aggressive, and I don't want more of them to be that way. This is not a brief for obnoxiousness or for mindless if-you-say-yes-then-I'll-say-no opposition. Rather, I'm arguing for the value of reasoned objections and principled skepticism. Thus, it's possible to assert, without contradicting oneself, that some students are unpleasant and also that too many students are unwilling to challenge authority.

The fact that childhood is an ideal time to begin promoting the disposition to question and speak out doesn't mean that only children are unlikely to do these things at present. Quite the opposite. All around us we find adults who sound like Robert Frost's neighbor, the man who "will not go beyond his father's saying." All around us are people who, when questioned about some habit or belief they have adopted, reply, "Well, that's just the way I was raised" — as if this ended the conversation, as if it were impossible to critically examine the values with which one was raised.

All around us we encounter individuals who not only are unwilling to oppose that which is wrong, but who seem not even to see that something is wrong. They open their front door, survey a landscape of suffering and injustice, and quietly close the door again, declaring with satisfaction that all is well. All around us — including in the field of education — we meet people who have lost their capacity to be outraged by outrageous things, people who, when they are handed foolish and destructive mandates, respond by meekly asking for guidance on how to put them into practice. If they ever had the gumption to analyze ("Is this really in children's best interest?") or to object (when the answer to that question is no), it has long since evaporated.

Even if our only goal were to understand the world more accurately, we would need to maintain a questioning stance. Intellectual progress demands that we refuse to take things at face value, refuse to accept everything we've been told, refuse to assume that the conventional wisdom must be right. Science, as Richard Feynman remarked, can be defined as "the belief in the ignorance of authority"[9] — a statement that might be dismissed as hyperbolic were it not for Feynman's eminence as a scientist.

Of course, that same questioning stance is demanded not only by a desire to understand but by a desire to act, not only to find out what is true but to do what is right. There are social and political realities that fail to meet even the most elementary standard of moral acceptability. Rather than socializing children to accept things the way they are — accept them as desirable or, just as bad, accept them as inevitable — we need to help children critically analyze the status quo in order to decide which institutions and traditions are worth keeping and which need to be changed. In short, we should help students "talk back to the world." [10]

Some who would like to see students do just that are inclined to turn, logically enough,

to the movement known as Critical Thinking (CT), which was all the rage among educators during the 1980s.[11] Alas, CT proves disappointingly traditional in several respects:

- To respond to ideas and events critically, one must not only think but also feel, care, and do. CT, as the name implies, is an exclusively cognitive affair.
- A CT curriculum trains students to master a set of discrete analytical skills; they learn to spot this logical fallacy, then that one. Here we find the familiar behaviorist tendency to reduce a whole to its parts.
- Each of those skills is transmitted from teacher to student, which leaves the relationship between them unexamined. CT is about analyzing arguments, not about questioning the role of authority.
- Like most instruction, CT is geared to improving the proficiency of individual students. Meaningful criticism, on the other hand, is a social process— not merely logical but dialogical — and it addresses the structural causes of the situations in which we find ourselves.
- Finally, and implicit in the preceding points, CT is concerned only with what students are able to do, not with whether they're inclined to do it. They may learn what “post hoc, ergo propter hoc” means, and they may be able to recognize the use of loaded language when they see it. But will they use these tools? And, if so, when and to what end? CT is so far removed from promoting a critical sensibility that one begins to suspect the word “critical” in its name is intended in the other sense, as a synonym for “important.” Done well, CT can indeed help students to acquire useful thinking skills, but it's not about helping them to *become* critical, to talk back to the world.[12] For that, we need other measures. One such measure is the practice of taking children backstage. But there is much more that educators can do.

## Raising Rebels

From about age 5, children tend to latch onto the concept of fairness, denouncing whatever they believe violates that ideal. Teachers can build on this principle, extending it beyond self-interest so that students realize it's unacceptable when any person (or group) has been wronged. At the same time, it makes sense to call attention to wrongs that are, in fact, taking place and support the process of developing and refining a sense of moral outrage. The goal is to help children acquire the insight needed to recognize injustices and the courage needed to oppose them. Here, of course, we are trafficking in values, but in a way quite different from— perhaps even diametrically opposed to — the orientation of mainstream “character education,” which is usually more about socializing children to accept status-quo values than to challenge them.[13]

It's possible, however, to promote a critical sensibility even without discrete lessons devoted to social and ethical issues. What matters most is how the regular curriculum is taught. In many cases, teachers may come to realize that the default approach to instruction has the effect of inculcating passivity, with students spending most of their

time swallowing right answers and then spitting them back on command. This process is easy to see where scripted instruction is used — or, even more commonly, in classrooms characterized by the unholy trinity of textbooks, tests, and lectures. (Lecturing was defined by the writer George Leonard as the “best way to get information from teacher’s notebook to student’s notebook without touching the student’s mind.”[14])

But I’ve been struck by how many teachers who regard themselves as nontraditional, or as champions of critical thinking, also end up promoting passivity in ways they probably don’t intend. I recently visited a combined third- and fourth-grade classroom at a nominally progressive school and watched as the two teachers met separately with students for a math lesson. In both groups, the agenda consisted mostly of reviewing the students’ answers to worksheet questions about place value. One boy rattled off an elaborate technique he had devised for solving a problem, after which the teacher, in a rather perfunctory fashion, said, “Wow. I’d have to look at that.” It was clear from his tone, and from the fact that he quickly moved on to the next problem, that he had no plans of investigating the idea any further. The boy and his classmates presumably got the message that innovative thinking was not encouraged here. Across the room, meanwhile, the other teacher was trying to help her students figure out what “they” — the anonymous worksheet creators — meant by a certain instruction. The goal was to second-guess the intentions of distant authorities and then do what they wanted.[15]

There is a striking difference between a lesson— and, over time, a classroom — whose purpose is to train students to provide correct responses and one whose purpose is to promote deep understanding. Even in math, where right answers obviously exist, some teachers deliberately avoid presenting (or at least minimize the salience of) the accepted algorithm. Instead, they invite students to invent their own techniques and to discuss with one another why each may have gotten a different answer. Even when a student comes up with the correct answer, such teachers are apt to ask, “How else could you figure it out?”

The more traditional approach, by contrast, is to scan children’s ideas to determine the extent of their “correspondence [with] what the teacher wanted,” as Eleanor Duckworth saw it. “Knowing the right answer requires no decisions, carries no risks, and makes no demands. It is automatic. It is thoughtless.” The single-minded concern with getting children to produce that answer, Duckworth added, may offer one response to the haunting question: “What happens to children’s curiosity and resourcefulness later in their childhood?”[16] However, curiosity and resourcefulness are not the only casualties of this kind of teaching; students’ inclination to object, to resist, to refuse to be cowed by authority is also affected. We should reject a focus on right answers and conventional methods, in other words, not only because it promotes shallow learning but because it promotes passive acceptance.

Avoiding practices that encourage passivity is just the beginning, of course. Teachers also must take steps to create critical classrooms and to set up regular opportunities for students to be skeptical about what they hear. The choice of reading matter plays a role



here. When a teacher deliberately assigns material that contains errors or clear indications of the author's point of view, students can be jolted into the recognition that something in print shouldn't be accepted at face value. The teacher can help students develop the disposition and the skills necessary to notice mistakes and biases even in works where these things may not be so close to the surface.

Some elements of this process require exquisite skill on the teacher's part, but others are quite straightforward. They can be as simple as explicitly inviting students to ask probing questions — and modeling such questions for them, if necessary. These opportunities should be built into the curriculum so that every lesson includes chances to wonder, to argue, to criticize the text and what the teacher has said. At least initially, it may be wise to have students engage in this process in small groups, which, as Ira Shor points out, allows them “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.”[17]

The content of one's teaching makes as much of a difference as the style. The subject matter of particular disciplines can be framed so as to highlight examples of dissent, with students learning about people who have challenged established ways of painting or governing or thinking about the natural world. To take a rather different example, instead of just defining the word *metaphor* and assigning students to locate examples in a work of literature, metaphors can be introduced as a kind of rebellion against things as they are. There is something implicitly subversive about the project of imposing different and deeper meanings on the world we encounter.

Or consider the social scientist Herbert Simon's distinction between “well-structured” problems, the kind that are clearly defined and can be solved by applying established algorithms, and “ill-structured” problems, which are complex and don't necessarily contain all the information necessary for solving them or even clear criteria for determining whether they've been solved. The latter are much more realistic given that “all the really important social, political, and scientific problems in the world today . . . are ill-structured,”[18] and they're also more likely to provoke students to question what they're told.

Here's another specific suggestion for promoting a critical perspective: teachers can emphasize the ideas in a given field that they are still personally struggling to make sense of. The passion they probably feel about such issues is likely to facilitate students' engagement even as it communicates two equally important messages: that people continue to be genuinely curious all their lives and that adults, including teachers, may be uncertain and even clueless about some things. The latter point can also be made by focusing a discussion on what even the experts still don't understand — that is, on what *isn't* known — in a given field. Or teachers might present “a major disciplinary issue about which experts of equal stature disagree dramatically,” after which students can be asked “how it is possible for experts to come to such different conclusions”[19] — and for so many absolute certainties about the world to have been questioned and ultimately overturned.

Even while reviewing basic facts and skills, teachers can emphasize that many things we just accept as givens could have been 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, should children be reminded how arbitrary the "correct" — which is only to say, conventional — spellings of words really are. Toward that end, teachers might present sentences featuring words that have more than one acceptable spelling or whose spelling has changed over time. ("My *loveable advisor cancelled* our meeting about the *esthetic* features of the new *catalog*.") One can take an active and critical stance, in other words, even toward basic knowledge that students need to acquire.

Thoughtful assignments can be designed specifically to encourage a sharper, more active response to authors. It's possible to dispense with the tired practice of asking students whether they agree or disagree with what they've read. "*Why* do you agree or disagree?" is a little better, insofar as it invites reflection, but even that question is far from ideal. To begin with, it suggests that there are only two possible responses. (Exercises in which students are assigned to argue for or against a given proposition, like anthologies that contain clashing "pro" and "con" articles on controversial issues, similarly teach students to think in simplistic and misleading dualities.) We want students to construct nuanced positions on important questions, not merely to come out for or against something.[20]

Asking students for their opinion about what they've read, rather than whether they agree or disagree with it, would seem to address this concern. But even here we have to be careful. The premise of both questions seems to be that the student's view is a fixed reference point by which ideas should be evaluated. This excludes the possibility that one's opinion might change as a result of having been exposed to a new idea. Thus asking "What questions do you have that you didn't have before you read this?" is more consistent with the possibility that *learning* might have taken place.

The implication here is that, while students are questioning what they read and challenging what they're taught, they should also be questioning and challenging their own beliefs. This is Constructivism 101: learning happens when we're compelled to reorganize our thinking in light of a fresh experience or when we discover that two beliefs can't easily be reconciled. It's not always recognized, though, that an approach intended to promote a more sophisticated mastery of ideas can also promote the disposition to challenge. Moreover, it should be emphasized that such a disposition applies to others and oneself alike. To be critical only of other people's ideas is to risk arrogance and stagnation; to be critical only of one's own ideas is to risk timidity and indecision.

It takes time, of course, to help students learn to strike the right balance or, for that matter, to do almost any of the things I've been talking about. Deep inquiry and critical evaluation are much less likely to take place if the curriculum has been overplanned or if learning must conform to a rigid schedule. The worst-case scenario is the concatenation of short periods in a factory-like high school, but many elementary

teachers voluntarily impose something almost as bad, cutting off discussion about the Presidential election because an arbitrary timetable inscribed on the blackboard dictates that “it’s time now to take out our science books.”

One common theme in all these suggestions is the happy confluence between the kind of teaching that helps students learn better and the kind that helps them challenge the world as they find it. This is true not only of the specific topics and methods I’ve been discussing, but also of certain overarching educational goals that have been proposed for stimulating intellectual development. Consider the five “habits of mind” developed by Deborah Meier and her colleagues. The study of virtually any topic will benefit, they argue, from raising questions about *evidence* (“How do we know what we know?”), *point of view* (“Whose perspective does this represent?”), *connections* (“How is this related to that?”), *supposition* (“How might things have been otherwise?”), and *relevance* (“Why is this important?”).[21] When you think about it, these are also habits of “minding” — that is, of objecting and shaking one’s head and speaking out. Educators who navigate by the questions Meier proposes — as opposed to, say, by the criterion of standardized test scores — are likely to help students become skeptical and perhaps even brave.

Why, then, are so many students compelled to spend so much time practicing skills and memorizing right answers? Perhaps it’s because those with an interest in preserving the status quo don’t want kids (or even most adults) to feel too confident or empowered. It isn’t surprising, Paulo Freire remarked, that “the ‘banking’ concept of education,” in which knowledge is deposited in student receptacles, regards people as “adaptable, manageable beings. The more students work at storing the deposits entrusted to them” — a pretty good summary of most homework — “the less they develop [a] critical consciousness.”[22] There may be good reason, in other words, for conservatives to oppose constructivism, learner-centered instruction, whole language, and the like; conversely, there may be good reason for socially and politically progressive people to be overrepresented among the proponents of such teaching.[23]

Many philosophers and politicians believe that education is principally about transmitting a set of cultural beliefs to children in order to reproduce our institutions and values in the next generation. Conservatives, almost by definition, are likely to take this position, but in the United States the range of debate on many issues has been narrowed to the point that mainstream thinkers, the only kind given a respectful hearing, tend to agree about far more than they disagree. Basic premises are accepted across the visible political spectrum. Thus, for example, William Galston, a political theorist who advised President Clinton and other Democrats, has declared that the state may not “prescribe curricula or pedagogic practices that require or strongly invite students to become skeptical or critical of their own way of life.” After quoting that remarkable statement, Nel Noddings adds, “Socrates would weep. But, of course, people who feared critical thinking in his time knew what to do with Socrates.”[24]

## Climate and Culture

To challenge is to venture out on uncertain terrain, and in order to take such risks, one

must first experience a sense of safety. Students have to feel comfortable if they're going to promote useful discomfort for themselves and those around them. This applies not only to high-profile dissent but to high-quality thought. One educator, defending the need to explore "the affective aspects of cognition," emphasized that "to engage in thinking which is challenging, fraught with ambiguity, and involves reflective activity necessarily requires students to feel confident in their ability to make sense of problematic situations." [25] This is doubly true if students are engaged in *making* situations problematic.

While temperamental differences will incline some people to feel more confident and comfortable than others, teachers can work with all students to create a caring classroom community, a place where everyone feels valued and supported and no one fears being laughed at for asking a question or proposing an idea.

Creating a classroom that's conducive to challenge is a matter of what teachers do, but also of what they refrain from doing. It's a function of their personalities (warm and inviting versus chilly and intimidating), but also of the way teaching and learning are structured. I'm not interested only in whether a teacher smiles and nods and hugs, but in whether he or she schedules class meetings devoted explicitly to eliminating putdowns and helping reticent students to feel comfortable about speaking up. I'm also interested in whether students are publicly evaluated, whether their assignments are graded, whether they have been led to focus more on *how well* they're doing in school than on *what* they're doing. Even in the classrooms of supportive teachers ("Ooh, you're close!" or "I'm sure you'll do better next time!"), learning often takes a back seat to performance. And many students will decline to challenge the person who serves as the arbiter of their performance. "In order not to fail," the anthropologist Jules Henry once observed, "most students are willing to believe anything and [not to care] whether what they are told is true or false." [26] The hidden curriculum in such classrooms is how to please authority, not how to develop convictions and stand up for them.

It's important to add that a classroom can be safe and supportive while promoting criticism and even rebellion. Some years ago, David and Roger Johnson, the cooperative learning mavens, and some of their students (including Dean Tjosvold, now a management theorist), formulated the idea of "cooperative conflict" or "constructive controversies." [27] Its premise is that we don't need to choose between an environment that's adversarial, in which one person's success is predicated on another's failure, and one in which disagreement is discouraged. Neither is desirable. A setting with contests, debates, and an imperative to triumph over others feels chronically unsafe, as I've argued elsewhere. But a setting characterized by enforced harmony isn't exactly an incubator of courage or effective problem solving. That's why Alfred Sloan, who ran General Motors in the 1920s, was known for saying to his board of directors, "I take it we're all in complete agreement on this decision? In that case, let's postpone further discussion of the matter until our next meeting to give ourselves time to develop disagreement and perhaps gain some understanding of what the decision is all about."

Cooperative conflict offers the best of both worlds: the passion of disagreement nested

in a caring community. Lessons can be structured with this blend in mind, and its very existence in the classroom serves to remind students of the possibility of civil discord, or noncompetitive argument, or what the Johnson brothers once called “friendly excursions into disequilibrium.”

Ideally, teachers are open not only to having students challenge one another, but also to having students challenge *them*. This is the logical conclusion of the idea of taking students backstage and demystifying one’s authority, which I described earlier. However, it’s a conclusion that many teachers find difficult to reach. Don’t get me wrong. I’m convinced they’d like children to think for themselves, to be assertive and morally courageous . . . with their friends. All teachers hope students will resist peer pressure, but they may be “troubled by children’s passivity only in certain contexts,” as psychologist Robert Deluty pointed out. They don’t want kids to be bullied, but they want them to follow directions from adults uncritically.[28]

We have to be secure enough to welcome challenges without becoming defensive or reverting to practices that are fundamentally autocratic. We need to remind ourselves just how much social, moral, and intellectual growth will be sacrificed when getting or keeping control of the classroom is our paramount goal. (Countless discipline manuals offer advice for how best to outmaneuver children who have the temerity to argue with us, how best to parry — or, better yet, preempt — their challenges. Such books provide excellent examples of what not to do and how not to be.[29])

No specific expertise is required to take this advice. An openness to being confronted by one’s students is more a matter of will than skill. But two theorists have suggested interesting ways of taking the basic idea a step further. Frank Smith recommends bringing a second adult into the classroom, someone able and willing to argue with the teacher. This empowers students to do the same — or at least to avoid thinking of the teacher as an absolute authority figure whose ideas must be accepted.[30]

Meanwhile, Marilyn Watson, an expert on early childhood development, proposes that we not only make it clear to children that their opinions count (by listening carefully and giving their views a respectful hearing), but that we also refrain from “responding with the full force of our argument to justify our own positions, thereby overwhelming children with our logic.” In fact, she adds, we should “help children develop reasons to support their own views, even if we don’t agree with those views. We should help them to articulate their position, or even marshal the best argument [we] can think of from their perspective.” The ultimate goal, after all, isn’t to ensure that our position prevails, but to encourage children to challenge us (and others) and to help them learn how to frame their arguments more convincingly. We want kids to talk back to us, as long as they do so respectfully, and we want them to get better at it.[31]

To suggest that teachers relinquish the comfortable position of authority over students is to ask a lot, especially if most of *their* teachers, from preschool to graduate school, haven’t set a particularly daring example. For that matter, any change that entails rethinking basic questions about the teacher/student relationship and the objectives of schooling is more likely to take hold if, as a matter of policy, teachers are treated as

professionals and trusted to use their judgment. They need to feel safe about taking risks in order to create classrooms where students can feel the same way; it's hard to give others what you, yourself, don't have. A teacher who has been deluged with directives and intimidated into following orders is rarely able to help students find the courage to dissent.

Schools of education have a fundamental choice to make here.[32] Teacher educators can either socialize their students to deal with educational reality as they find it and try to succeed within given conditions, or they can encourage their students to ask radical (that is, root) questions. Those who see the latter as their mission will provide future teachers not only with what they'll need to do their job well but also with what they'll need to reimagine and reshape the job that's been defined for them. Newly minted educators may benefit from a familiarity with different theories of education, but they also need what Hemingway called a good crap detector. They ought to emerge from the university secure in the belief that one can and must fight what is wrong, rather than being inclined to put their heads down and hope it will go away by itself.

It may be necessary for some teacher educators to take a hard look at what happens in their own classrooms. It's not uncommon to find university instructors who see themselves as critical thinkers, progressive and even radical critics of the status quo, but who rely on orthodox pedagogical methods to transmit heterodox ideas. Some of their courses are done *to*, rather than designed *with*, students; the syllabuses are written before the course has even begun. Some of these instructors proceed largely by lecturing, by fishing for right answers during discussions, even by giving grades. And that is the chief lesson their students will take away: not the explicit content of the course, but the idea that classrooms are places where students listen and memorize facts and figure out how to snag a good mark. Ideally, professors of education should not only reconsider their own reliance on the usual practices but should attempt to do in their classrooms the kinds of things I've been describing, beginning with taking their students backstage in order to demystify the process of teaching (including teaching about teaching).

Regardless of what or whom one teaches, there are ways to help students develop an active and critical stance. Obviously the strategies listed here are not exhaustive. In fact, I would be grateful to hear from educators about their experiences with any approach that has proved useful for reaching the same objectives.[33] We need to learn from—and, fittingly, to challenge — one another's ideas. But most important is a basic commitment to make sure that our students — future teachers, parents, and citizens — are able and willing to take a stand.

## NOTES

1. For example, see the work of Donald Graves, Nancie Atwell, Regie Routman, and Donald Murray.
2. John Seely Brown, Allan Collins, and Paul Duguid, "Situated Cognition and the Culture of Learning," *Educational Researcher*, January/February 1989, pp. 32-42. Schoenfeld himself has argued that students not only don't get to see their instructor doing problems but don't really get to do problems themselves.

“Over the period of a full school year, none of the students in any of the dozen classes we observed [in a highly regarded suburban high school] worked mathematical tasks that could seriously be called problems. What the students worked were exercises: tasks designed to indicate mastery of relatively small chunks of subject matter, and to be completed in a short amount of time.” The focus was not on “mathematical thinking” but on “the rote memorization of facts and procedures” (Alan H. Schoenfeld, “When Good Teaching Leads to Bad Results: The Disasters of ‘Well-Taught’ Mathematics Courses,” *Educational Psychologist*, vol. 23, 1988, pp. 159, 164).

3. I reviewed several studies on modeling and generosity in [The Brighter Side of Human Nature](#) (New York: Basic Books, 1990). The cautionary study is George C. Thomas, C. Daniel Batson, and Jay S. Coke, “Do Good Samaritans Discourage Helpfulness?,” *Journal of Personality and Social Psychology*, vol. 40, 1981, pp. 194-200.

4. John Holt, *How Children Fail*, rev. ed. (New York: Delta, 1982), pp. 282-83. This, I suspect, is similar to the reason the Mission Hill School in Boston, founded by Deborah Meier, has its main office in the same large room where students use computers or just hang out. There are no secrets when staff members meet or talk on the phone. For the most part, the inner workings of school administration are deliberately transparent to everyone.

5. This exchange was reported in Richard T. White, “Raising the Quality of Learning: Principles from Long-Term Action Research,” in Fritz K. Oser et al., eds., *Effective and Responsible Teaching: The New Synthesis* (San Francisco: Jossey-Bass, 1992), p. 55.

6. After years of being instructed to comply with someone else’s decisions, it can be disconcerting to be invited to do some of the deciding. This is a point I raised more than a decade ago, at the end of an article for this journal that emphasized the importance of giving students more say about what happens in their classrooms. I suggested that resistance on the part of students takes three primary forms: *refusing* to participate in making choices (“You’re the teacher — that’s your job!”); *testing* (that is, offering outrageous suggestions or responses to see if the teacher is serious about sharing authority); and *parroting* (repeating stock teacher lines or guessing what the teacher wants to hear). See [“Choices for Children.”](#) *Phi Delta Kappan*, September 1993, pp. 8-20.

7. Moreover, even those students who welcome the chance to challenge received wisdom and to see teachers as fellow learners may need to be convinced that an adult is what he or she claims to be. As Carl Rogers once remarked, “Students have been ‘conned’ for so long that a teacher who is real with them is usually seen for a time as simply exhibiting a new brand of phoniness” (*A Way of Being* [Boston: Houghton Mifflin, 1980], p. 273).

8. Norm Diamond, “Defiance Is Not a Disease,” *Rethinking Schools*, Summer 2003, p. 13.

9. Feynman’s comment, published in his book *The Pleasure of Finding Things Out*, was cited in an article by David Berliner that was, in turn, cited by Gerald Bracey in his April 2004 *Kappan* column.

10. The idea of “talking back” to authority is credited to the writer bell hooks by the editors of *Rethinking Schools*, who used the phrase in their 2003 book *Rethinking School Reform*. This sensibility is sometimes articulated by academic theorists whose critiques of conventional education require one to hack through a dense tangle of off-putting, self-important verbiage: “liberatory praxis,” “problematizing discourse,” “textual hegemonies,” “conflictual domains of materiality,” and so on. There are useful ideas lurking in many such monographs, to be sure, but after reading them one is sometimes left with the impression that a few hundred academics and graduate students are talking to one another and using lots of words (many of them nearly inaccessible) where a few would do. Meanwhile, 10-year-olds are still being trained to think the teacher knows everything, the textbook is always right, only kids screw up, and education is about memorizing the right answer.

11. It was all the rage, that is, until it was supplanted by Total Quality Management, then by Outcome-Based Education, then by Brain-Based Education, and then by Differentiated Instruction. There may have been a few more in there, too.

12. Some of these criticisms of CT, along with several others, are raised by the contributors to Danny Weil and Holly Kathleen Anderson, eds., *Perspectives in Critical Thinking: Essays by Teachers in Theory and Practice* (New York: Peter Lang, 2000).
13. See my essay "[How Not to Teach Values: A Critical Look at Character Education.](#)" *Phi Delta Kappan*, February 1997, pp. 429-39. It, along with "Choices for Children" (cited above), was reprinted in *What to Look for in a Classroom . . . and Other Essays* (San Francisco: Jossey-Bass, 1998).
14. George Leonard, *Education and Ecstasy* (New York: Delta, 1968), p. 2.
15. "Teachers who have a limited view of mathematical knowledge . . . [treat] the mathematics textbook . . . as a cryptic but authoritative document: Teachers and students together engage in puzzling out 'what it wants you to do'" (Magdalene Lampert, "Knowing, Doing, and Teaching Multiplication," *Cognition and Instruction*, vol. 3, 1986, p. 340). I suspect that Lampert is only partly correct in suggesting that this phenomenon is the result of teachers' lack of expertise in the field. Attitudes toward authority — teachers' own and those they hope to instill in students — may also play a part.
16. Eleanor Duckworth, *The Having of Wonderful Ideas" and Other Essays on Teaching and Learning* (New York: Teachers College Press, 1987), pp. 131, 64, 6.
17. Ira Shor, *Empowering Education* (Chicago: University of Chicago Press, 1992), p. 71.
18. Herbert Simon's article, "The Structure of Ill-Structured Problems," *Artificial Intelligence*, vol. 4, 1973, pp. 181-201, is cited in Norman Frederiksen, "The Real Test Bias," *American Psychologist*, March 1984, p. 199. Frederiksen invokes this distinction in order to make the point that standardized tests contain only well-structured problems, which is one reason that they tend to measure what matters least.
19. Chet Meyers, *Teaching Students to Think Critically* (San Francisco: Jossey-Bass, 1986), p. 47. "Every discipline," Meyers continues, "lends itself in some way to such an approach. There are opposing theories of mental disease, conflicting interpretations of history, different theories of management," and disagreements "about what constitutes 'real' art."
20. Another disadvantage of reading and participating in such debates is that they encourage students to accept an adversarial approach to thinking and discussing. We want them to challenge, but there's a difference between challenging in order to learn and challenging in order to win. Whenever competition is involved, learning — and ultimately the quest for truth — is apt to suffer.
21. Meier discusses these habits of mind in her book *The Power of Their Ideas* (Boston: Beacon, 1995), as well as in many of her other writings.
22. Paulo Freire, *Pedagogy of the Oppressed*, trans. Myra Bergman Ramos (1970; reprint, New York: Continuum, 1993), p. 54. Ira Shor put it this way: "All forms of education are political because they can enable or inhibit the questioning habits of students, thus developing or disabling their critical relation to knowledge, schooling, and society." Thus, "rote learning and skills drills in traditional classrooms do more than bore and miseducate students; they also inhibit their civic and emotional developments" (Shor, pp. 12-13, 18).
23. Back before whole language became the teaching method that dare not speak its name, one survey found a .86 correlation between teachers' commitment to this approach and their liberal views on social and economic issues. That finding was reported by D. H. Creek at the 1993 meeting of the American Educational Research Association, as cited in Steven A. Stahl, "Why Innovations Come and Go (and Mostly Go): The Case of Whole Language," *Educational Researcher*, November 1999, p. 18.
24. Nel Noddings, *Happiness and Education* (Cambridge: Cambridge University Press, 2003), pp. 223-24.
25. Terry Wood, "Events in Learning Mathematics: Insights from Research in Classrooms," *Educational Studies in Mathematics*, vol. 30, 1996, p. 86.



26. Jules Henry, *Culture Against Man* (New York: Vintage, 1963), p. 297.
27. For example, see David W. Johnson, Roger T. Johnson, and Karl A. Smith, "Academic Conflict Among Students: Controversy and Learning," in Robert S. Feldman, ed., *The Social Psychology of Education* (Cambridge: Cambridge University Press, 1986); and Dean Tjosvold, "Making Conflict Productive," *Personnel Administration*, June 1984, pp. 121-30.
28. Personal communication in 1989 with Robert Deluty, a psychologist at the University of Maryland.
29. I discuss this issue in [Beyond Discipline](#) (Alexandria, Va.: Association for Supervision and Curriculum Development, 1996), particularly in the section titled "The Value of Conflict," pp. 74-77.
30. Frank Smith, *Insult to Intelligence* (Portsmouth, N.H.: Heinemann, 1986), p. 201.
31. Marilyn Watson is the author of *Learning to Trust: Transforming Difficult Elementary Classrooms Through Developmental Discipline* (San Francisco: Jossey-Bass, 2003). The comments quoted here are from personal communications in 1989 and 1990.
32. This paragraph and the following one are adapted from my article "[Professors Who Profess.](#)" *Kappa Delta Pi Record*, Spring 2003, pp. 108-13.
33. I can be reached at the email address listed on the contact page at [www.alfiekohn.org](http://www.alfiekohn.org).

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