On Assessment of Teaching: A Conversation with
Lee Shulman

Idea man par excellence, Lee Shulman has long set directions for research on teaching. After founding and directing the Institute for Research on Teaching at Michigan State, Shulman, now at Stanford, continues his far-reaching investigations into the interplay of content and pedagogy and into assessments of teaching that faithfully reflect its complexity.
You're working on a process for assessing teachers for national certification. What do you think it will look like when it's finally in place?

I think we'll eventually have a certification process that will unfold over a period of several years, beginning as early as the time a candidate seeks entrance to a teacher education program and continuing into the first few years of teaching. Please understand that I don't speak for the National Board; they are the ones who will write the policies. But having said that, I foresee a process that will culminate sometime during the first five years of teaching. It will include written tests and performance assessments, but also an emphasis on documenting teaching through building a portfolio.

A lot of people are skeptical about tests.

I'm not prepared to dismiss paper-and-pencil tests as worthless. Written tests, especially objective tests, were invented to solve a very important problem: economically surveying a large range of understandings and ensuring that the same standards were used in a fair and equitable manner for every single person who takes the tests. Tests have their limitations, but you don't want to throw out the baby with the bathwater. Certain aspects of content knowledge and pedagogical knowledge related to content are amenable to paper-and-pencil testing—though not necessarily multiple choice. A format that requires a single best answer does not typically reflect the complexities of teaching.

They've apparently had difficulties with the portfolio idea in Tennessee. Teachers claimed they had to put in so much time building a portfolio that it interfered with their teaching.

We can learn from the problems others have had. We should be able to design checks and balances to ensure that the portfolios represent a legitimate portrayal of the teaching accomplishments of the candidate.

What I have in mind is that after a period of time, during which there is a combination of test taking, documentation in a portfolio, and direct classroom observations of the teacher—with mentoring playing a strong role—when candidates have their portfolios in a certain state, they submit them to the board for review. And only if the portfolio meets stated standards does the teacher go to an assessment center, which I would see as the final stage. The staff of the assessment center will be examining people, in part, over the contents of their portfolios: videotapes, examples of student work, a description of the unit of which the lesson was a part, and so on. In other words, they'll need to make linkages between the assessment center and documentation of performance.

How will this system improve the teaching profession?

Well, first, I think it will make all of us, teacher educators and practicing educators, teachers and administrators, much more reflective about what we're doing. At present, for example, we educators leave almost no record of what we've done. So when it comes time for someone else to learn from our experience, they find it difficult. If beginning teachers are responsible for developing a real portfolio, with test results, performance assessments, and so on, they'll have evidence that will help them look back and think about their performance as a teacher: both what they understand how to do and what they don't. When they apply for a job, teachers will have more than a transcript and a few letters of recommendation. They'll be able to present a portfolio of their work, as an architect can.

Aside from making educators more reflective, the assessment process should improve teacher education. I'm not in favor of assessment only for screening purposes, for selecting people out, the whole idea should be to provide formative feedback to improve the quality of those engaged in learning to be teachers.

It's inevitable that the prospective teacher will see anything of this sort as a set of hurdles to be jumped over.

So you want the hurdles to be valid in themselves, you want them to be meaningful.

What are some other pieces of the total system that need to be in place in order for this process to work?

Well, those of us in teacher education need to radically reconstruct what we do in the preparation of teachers. The worst error we could make as teacher educators is to assume that the problem is one of quality control rather than the quality of the instruction we provide for teachers. Anybody who treats certification as a magic bullet that will somehow select only the best and brightest teachers from an unchanging teacher education process is going to be badly disappointed. We're doing teacher education the same way we've been doing it for 50 years, the process is fundamentally flawed, and we need some utterly new models.

What sort of changes do you have in mind?

I'd like to see much greater use of cases, much like what is done in law and business education. That might reorient the teaching of teachers from the current model, which is either entirely field based, where you have little control over what goes on, or entirely classroom based, where everything is artificial. We have to create a middle ground, where problems of theory and practice can intersect in a realistic way. The genius of the case method, especially in business, is that you use realistic problems, but you can still deal with both the theoretical and the tactical aspects.

A second change is the development of mentoring and induction programs that provide a better transition into teaching, and that will, I hope, erode the boundary between preservice and inservice. I see the mentor as a really new role: a teacher who begins to take on some of the responsi-
The model of certification on which you're working gives a great deal of control over the process to teachers. What are the implications of that for people who now play a larger role in teacher selection, certification, and evaluation?

Well, remember that it's a model for voluntary teacher certification for professional recognition purposes. It's not for licensure, and it's not for the evaluation of performance in a district. The process will be essentially under the control of the practitioner community, with participation from other stake-holding groups. In other words, two-thirds of the members of the board will be teaching professionals, and the majority will be K-12 teachers—but that still leaves a lot of places on the board for administrators, teacher educators, curriculum specialists, subject matter specialists, political leaders, parents, and so on.

Then I foresee that the very existence of that standards board and that process of certification will exert influence on the processes of licensure and of evaluation, which are of their nature more political and local—not supplanting them, because I think that would be wrong—but providing amplification of the teacher's voice with respect to the standards of practice.

Still, in the long run, it suggests that those in roles typically occupied by ASCD members—principals, curriculum directors—will play a less influential part in such decisions, and teachers will play a larger part.

Perhaps so—but the core of our profession is teaching, and everything else—supervision, administration, teacher education—should build around that core. I dream of the day when principals or aspiring principals will first have to be board-certified teachers: to have demonstrated that they have reached a certain level as instructors before they can claim to be instructional leaders. I feel the same way about those who supervise instruction. The results should not be a "we and they" kind of business, but a "we," in which we all share the same core and build differentiation of roles out of that.

If someone were a board-certified teacher and also a principal, would she still be considered a teacher?

Absolutely. Let's remember here the etymology of the word principal. Principal did not begin as a noun, but as an adjective, "principal teacher."

There are some educators who wouldn't mind having teachers as individuals play a larger role in decision making. They do worry, though, about teacher unions playing such a role, not because they dislike unions but because they feel that's just another way of limiting individual teacher prerogatives.

That's something that's got to be dealt with. I think the members of the two major teachers' unions who are represented on the national board—but are far from controlling the board, which is the nightmare that some folks seem to have—will have to think through the incompatibility between traditional images of adversarial collective bargaining on the one hand, and notions of a unified profession that includes administrators and supervisors, on the other. They can't play it both ways. We're going to have to come to terms with that one, but I'm not smart enough to figure out how. I'll leave that to others.

Some people object to the idea of performance assessment for teachers because zeroing in on a particular model of good teaching necessarily limits the options and implies that we have now decided what good teaching is and that we will shut out other alternatives. Does that concern you?

One would have to be terribly naive not to worry about that, but it isn't the creation of a national board that suddenly introduces this danger; we're living with it already. A good many current teacher tests and teacher evaluation instruments are limited to the teacher effectiveness model of teaching. I actually see the new assessment approaches we're talking about as part of the solution, because they are much
more open-ended: the whole idea in these assessments is that teachers produce their own responses to a situation.

But we have to recognize that at some point somebody somewhere has to say, "Here's where we draw the line." That's not been popular in education, and some decisions that will be made may be unpopular. But I don't see any way of doing a responsible job of educating teachers, evaluating them, or selecting them without making some such tough choices.

I can see that some current state models may be mistaken, but the difference is between a variety of state models, which makes it possible to see by comparison over a period of time that a particular plan may be a bad idea, and a single system that might dominate all of education.

Yes, we've had that problem in medicine. When I got into medical education for the first time back in the late '60s, the worst problem we had was the National Board of Medical Examiners, because it was locked into what we felt was a conservative view of medical preparation. For about 10 years, it was a real impediment to changes in medical education. That board has come around, though. It is now becoming much more innovative. If this national board thing works and really does the job we dream it can do, in 20 years we could conceivably have that problem.

One of the themes you've emphasized in recent years is the importance of content knowledge. For many people that's a new way to look at the research on teaching. How would you characterize the state of the art?

We know by now a great deal about classroom organization and management, and much of that work is being applied quite successfully. Some of the research doesn't get classified as classroom organization, but it really is, like the work on cooperative small groups by Slavin and others. But it too is rather generic.

We're just beginning to get a second generation of classroom research that is domain-specific, for example in mathematics, where teaching is typically built around problem sets you give as homework, and you therefore have to review homework as problem sets, so you can see whether the students are making specific errors. The management and organization of the mathematics classroom has a certain character that follows from that characteristic of the discipline. Gaea Leinhardt at Pittsburgh has done some fine work on this. A math teacher has to be able, as economically as possible, to check to see if the students understand the homework they've done, to get a quick impression of both what problems they have and who's having the problems, and to do it fast enough to get on with the lesson for the day. It turns out that if you break that down, as Leinhardt has done, that's a very difficult thing to do. Leinhardt has documented that novice teachers have a terrible time doing it.

That's an important kind of second generation research. But notice that it applies in only a limited way to the teaching of history or literature, which doesn't involve use of problem sets. What does it mean to make a mistake with respect to the Declaration of Independence or Madame Bovary, if by mistake you don't mean simply an error of fact but that the student didn't get a strategy right or an interpretation right? What I see happening now is a move from the first generation of research on teaching, which helped us understand generic teaching skills, to second generation work looking at content-specific management.

But there's also a third generation of work beginning to be done, which is trying to understand what kind of representations and transformations of content understanding are needed to teach complex ideas well.

Your attention to content pedagogy makes me think of the statement by Lynne Cheney of the National Endowment for the Humanities, who concluded that educators value process more than content. I rankled at that, and many educators did too; but she apparently got that impression from listening to testimony from expert teachers.

I met with Cheney when she came to Stanford and she gave us that diagnosis at the time. I argued with her that the education community has overemphasized generic processes; but her solution, which is simply to forget process because it's irrelevant, is incredibly naive. As we're finding in our research, deeper and deeper content knowledge does not in and of itself produce better teaching. It is taking that content knowledge and transforming it for teaching purposes that makes for good teaching. Cheney missed that point entirely. She has decided the cure for education is the amputation of pedagogy, and that's insane.

But again, what triggered the thought is that the content has become so subordinated when we think about what we do that even great teachers aren't aware of the role of their own content knowledge. They understand Huckleberry Finn well enough that they can read it in different ways, like a literary critic. They select the interpretation that best fits with these students in these circumstances, and then blend some cooperative methods with some discussion methods with some lecture methods to put together an instructional unit. When you ask them what they did, they usually don't talk about their content knowledge; it's second nature, and they don't realize how subtle and deep it is. In my chapter for the Handbook of Research on Teaching, I called it "the missing paradigm," in the sense that paradigms are semiconscious ways we or...
ganize our thinking about a whole domain. Content has been the missing paradigm; we never talked about it.

Cheney would not only amputate pedagogy; she would amputate most of the people who are concerned with it. What you're saying is a challenge to people who purport to be experts in curriculum and supervision.

That's right. But it applies to my own group as well. Those of us who teach psychology and philosophy of education, and sociology of education, have to make the content of what is being taught central to what we teach. This isn't something I'm prescribing for curriculum and instruction courses alone. When I teach a course in the psychology of education, half of the reader I put together for my students should consist of excerpts from actual texts the students will use in their teaching. When we teach an idea from cognitive psychology, we'll use as the vehicle a chapter from a biology or history textbook. We'll ask, "How do these notions of misconceptions and preconceptions, or of higher and lower order thinking, relate to the teaching of this particular set of ideas regarding natural selection or to this Shakespeare sonnet?" We've got to bring it all in.

That has overwhelming implications for researchers. If more and more research is reported in terms of particular content, how can it ever be pulled together to make a picture of teaching in general?

I think we've got to start working from the bottom up. We will continue to find general principles of teaching, but I'm going to trust them only when I know that they have first been discovered with regard to particular content areas and then slowly generalized from topics to curriculum areas to teaching more generally. I no longer trust the approach of ignoring the content and looking only for the generic. We're going to need a long time in which, as physicians do, we do case studies of the actual teaching and learning of particular topics. My guess is that we'll find we can generalize the findings within a domain very rapidly after that.

It suggests, though, that educationists will have to be well educated people themselves, with a huge range of knowledge. It means we should be familiar with content that many of us, in fact, are not.

It makes clear why a really good liberal education is an absolute prerequisite for both teachers and teacher educators. When you realize how tightly bound up the content and process are, you begin to appreciate how profoundly difficult teaching is, and how much we draw on our understanding of the things we teach. One of the most important things we find that teachers do is to draw analogies, because one of the ways you make something clear to a student is by comparing it to something else they already know. The drawing of analogies, the generation of metaphors, rests on what other things you know. A liberal education, then, is not simply a nice thing to have because it gives you stature and proves you're smart; the contents of a liberal education are absolutely basic to teaching particular things to particular kids.

When there's more awareness of this content relationship you refer to, when everyone begins to recognize the complexity of what we need to think about, the audience for research on teaching may be a bit less interested. Generalist administrators who in recent years have been confident because they've had a clean, relatively simple model will now be told they can expect to read research on how to teach Huckleberry Finn. They may not find that very appealing.

That's right. I guess one of my goals in life is to bring more profound discomfort to those administrators and supervisors. I don't want them to believe any longer that they can walk into a class in which Huckleberry Finn is being taught and, without any understanding of that novel, of the teaching of literature, of the teacher's goals for the teaching of literature to this group at this time, do a responsible job of teacher evaluation.

And yet the generalist administrator can't know the content of every course that well, yet is obligated to supervise and evaluate every teacher as well as possible.

I recognize some of the dilemmas with respect to union contracts, teacher evaluation, and so on. And these dilemmas are being addressed in Toledo, for example, Rochester, and Redwood City, California. We'll come to see that the evaluation and supervision of a teacher is not the exclusive province of the administrator. Administrators can evaluate some things, of course, but they have to recognize the limitations of generic evaluations and the need for additional data reflecting content-specific pedagogy relevant to a particular setting. The task is not to disqualify the general administrator—heaven forbid—but to take the notion of instructional leadership much more seriously.

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