

Lee Shulman

Video 1

AUDREY AMREIN-BEARDSLEY

Hi, my name is Audrey Amrein-Beardsley from Arizona State University, Mary Lou Fulton Teachers College, working today with interviewing Lee Shulman, Dr. Lee Shulman, who is Charles E. Ducommun Professor of Education Emeritus Stanford, and President Emeritus the Carnegie Foundation for the Advancement of Teaching, and also the National Academy of Education member. Today we have the pleasure of introducing Lee Shulman to our audience members. Hi, Lee.

LEE SHULMAN

Hello.

AUDREY AMREIN-BEARDSLEY

Becoming Lee. You were the only son of Jewish immigrants. From where did your parents come?

LEE SHULMAN

My dad was born in the city of Lodz, Poland, and his family came to North America, to Canada, when he was four. But didn't get to the United States until his middle teens to Columbus, Georgia, where his dad was a Rabbi. And my mother came at the age of 14 from Lithuania and went directly to Chicago.

AUDREY AMREIN-BEARDSLEY

Where did (1:00) they meet?

LEE SHULMAN

In Chicago.

AUDREY AMREIN-BEARDSLEY

In Chicago.

LEE SHULMAN

Working in, they both had jobs in the Hart, Schaffner, and Marx Suit Factory in Chicago working on the assembly line.

AUDREY AMREIN-BEARDSLEY

And were you born in Chicago?

LEE SHULMAN

I was.

AUDREY AMREIN-BEARDSLEY

And your dad was a delicatessen?

LEE SHULMAN

That was his last failed business. I mean there were other before that. Dad worked on the assembly line in factories, especially during World War II. Then had his own little wood working factory that never really made it. Then he lucked out and had the chance to buy this deli. That was the most successful business Dad ever had. Mom and Dad worked in it together. Unfortunately, he died before reaching the age of 50, so he never really enjoyed the deli very long, but my mother with her second grade education (2:00) actually ran it more profitably than my dad had. So, but it was a very formative part of my early life.

AUDREY AMREIN-BEARDSLEY

Did you have siblings?

LEE SHULMAN

No.

AUDREY AMREIN-BEARDSLEY

No, only child.

Tell us about your experiences at Yeshiva High School and how that influenced the scholar that you've become.

LEE SHULMAN

My grandfather, who was a Rabbi and in New Jersey by that time I was born, very much wanted me to get a rich Jewish education, and the only way to really do that in Chicago at the time, was to go to a Jewish day school, where you got all of your education, both your Jewish education and your general education in the same institution. There wasn't much choice—there was one of these, and it was about an hour's commute from my home. So my parents enrolled me, and it was called the Chicago Jewish Academy, from sixth grade through, well graduating from (3:00) high school. It was about six years. For much of that time, I would be spend the morning in a Yeshiva, in essentially a theological seminary studying Talmud. Then after lunch we would get to the trivial stuff like English literature, and algebra, and geometry, biology, and physics, the stuff that, you know, you didn't have to be wide awake for.

AUDREY AMREIN-BEARDSLEY

You speak Hebrew, is that correct?

LEE SHULMAN

I do.

AUDREY AMREIN-BEARDSLEY

Is that where you learned Hebrew?

LEE SHULMAN

I learned Hebrew there, but I also when to a Jewish summer camp. A two month camp, which was not as Orthodox, it was a more liberal camp. So it actually created a kind of interesting dialectic between a much more modern perspective on what it meant to study Jewish texts and to be Jewish, and a far more traditional one in my school. But it also was the place where I learned much more Hebrew because it was a Hebrew speaking camp. (4:00) We were expected to speak Hebrew during the day. I don't think I ever dreamt in Hebrew.

AUDREY AMREIN-BEARDSLEY

Were you a good student in school?

LEE SHULMAN

Yeah, yeah, I was good. I was good. I was a speaker at graduation. Got a full scholarship to the University of Chicago, in spite of studying all of that unimportant stuff after one o'clock in the afternoon.

AUDREY AMREIN-BEARDSLEY

How did those formidable experiences influence your scholarship? Or did they?

LEE SHULMAN

Oh, yeah, I think they did enormously. If you are, kind of, invested in the practices of Jewish learning, they are entirely organized around the study of texts. I mean, whether the text is the Torah, or the Talmud, or any text. The basic notion (5:00) that I internalized was that texts are terribly important, they ought to be revered and respected, but never taken at their word. That a text is a starting point for understanding something, but until you begin to exercise your own interpretive capacities, and until you begin to seek out multiple interpretations of that text from others who are either your predecessors who may have existed five and 600 years ago, or who are your contemporaries with whom you are studying now whose work you're reading, you can't begin to understand what the text says. And so I think it developed in me a set of dispositions as well as skills that, boy, do they transfer to the academy. I mean the academy is all about (6:00) publish or perish, and I don't mean that in the emotion sense. I mean, in the academy the first principle is, if you've got some good ideas, publish them or your ideas are going to perish. They'll just disappear. And if you want to find out the very best ideas that others have had, read what they've published, but read it critically, read it analytically, read it skeptically, and keep on interrogating the text. That's very much the Jewish tradition of reading texts. Don't just accept them, wrestle with them. And I must say that when I left the Yeshiva and went to the University of Chicago, which was then, you know, the home of the great books of the Hutchins approach to reading original sources, never reading textbooks. Those dispositions, and orientations, and skills in (7:00) diving into texts, whether you're reading Galileo's *Dialogue*, Shakespeare's *Tempest*, or William Harvey on the circulation of the blood, I mean, your assumption was, I'm going to try to skim this, but I'm not going to get it because nothing worth reading is skimmable in that sense. I mean, for the plot of *The Tempest* (makes noise), that's fine.

AUDREY AMREIN-BEARDSLEY

Or Cliff Notes.

LEE SHULMAN

Or Cliff Notes. But that's just it, Cliff Notes are a skim. And what this meant was, read deeply, read analytically, read critically and skeptically. I mean I think that it formed my academic identity in many ways complete with its limitations. There's more to life than texts. But for a very long time, my orientation toward education and psychology was dominated (8:00) by the centrality of the written word, and I think, as I said, came to understand that every, every virtue like that comes with its own liabilities and limitations like that. And it's one that maturing as a scholar and as a teacher require of you, to acknowledge your strength, but recognize that in principle every strength has some hidden weaknesses, which you want to learn to either acknowledge or, if you can't, overcome.

AUDREY AMREIN-BEARDSLEY

What do you believe are some of the fundamental texts in education, foundational?

LEE SHULMAN

Well for me, they start out with some pretty old ones, Plato's *Ethics*, Plato's *Republic*, Aristotle's *Ethics*. I (9:00) go back to those Greek sources often. I think in the Jewish tradition, the Jewish tradition is so filled with texts that deal with teaching and learning. I mean, it's no accident that the word, Torah, means teaching. That's what the Hebrew word means. So it's very much those texts are extremely important. Getting more modern, I would say the work of John Dewey has had an enormous impact on me. No accident that I studied them with one of the great teachers of all time, the late Joseph Schwab at the University of Chicago, who in many ways was a mentor and a role model, remained so until he died. Other than those, it's Phil Jackson's *Life in Classrooms* was an (10:00) eye-opener. It's hard to, the older I got, the more texts I found influential. Every year I'll often add something that I just read that turns my head and gets me thinking in new ways.

AUDREY AMREIN-BEARDSLEY

Even outside of the field, I'm sure.

LEE SHULMAN

Oh, yeah.

AUDREY AMREIN-BEARDSLEY

When you were at Chicago, you met a very special person. Who was this person and how did you meet?

LEE SHULMAN

I have a feeling you have an answer in mind.

AUDREY AMREIN-BEARDSLEY

She's behind us.

LEE SHULMAN

Well, but I didn't meet my wife, Judy, at the University of Chicago.

AUDREY AMREIN-BEARDSLEY

You didn't?

LEE SHULMAN

No, I met her at summer camp.

AUDREY AMREIN-BEARDSLEY

Oh, okay.

LEE SHULMAN

So somebody gave you poor...

AUDREY AMREIN-BEARDSLEY

It must have been the time...

LEE SHULMAN

Yeah, my guess would be the sources of most of your misinformation is Gary Fenstermacher. But, yes, I actually met Judy while I was at the University of Chicago. (11:00) This is a relationship that, you know, is still being built. We've only been married 50 years, and we've raised three great kids, five grandchildren, and have done some writing and research together, although too much of that would put a good marriage at risk. But we have done a lot of work together, and our work overlaps and intersects a great deal. But we had no anticipation that that was going to be the case when we met.

AUDREY AMREIN-BEARDSLEY

She remembers that before you were married, her older brother sat you down, and, you already know what I'm going to say...

LEE SHULMAN

Yes.

AUDREY AMREIN-BEARDSLEY

He wanted to know how you intended to support her during your marriage. You said you were planning to be a philosopher. When he asked, "What do philosophers do?" What did you say?

LEE SHULMAN

Oh, yes, that was great. I mean, here I was a philosopher major essentially. All of us at Chicago were philosophy majors. And so David, who was going to be (12:00) a doctor, and of course doctors know what they're going to do because there are doctor shows on television, and people go to the doctor. And here I was majoring in philosophy, and nobody knows what a philosopher does because who goes to a philosopher? You know, when you've got a transcendental pain, do you go to a philosopher? And the fact is, I was majoring in philosophy, but I had no idea what a philosopher did. Because he meant do as a living. And I was probably all of 20 when he asked me that question, in love with his 18 year old baby sister. So all I could come up with, Audrey, was philosophers make distinctions. Well, you know what, that was a conversation stopper. He had nowhere to go on that one. And I believe he just began going to the bottom line of, "Aren't

you worried that you won't be able to support my sister in a manner to which she is accustomed?" (13:00) Did Judy tell you the coda to that story?

AUDREY AMREIN-BEARDSLEY

No.

LEE SHULMAN

Well I guess it turns out that a lot of my writing over the years has involved making distinctions, you know, between content knowledge and pedagogical knowledge, you know, these sorts of things. I was never particularly self-conscious about that. Then in about 1996 I find myself being interviewed by a headhunter who's looking for a new president for the Carnegie Foundation of the Advancement of Teaching. I was very happily in my Stanford professorship and didn't seek this job, and found myself being invited for an interview. At the end of about a three hour interview, the guy from the search firm leans over to me, and he says, "You know, Lee, I should probably shouldn't say this, but I think you'd make a really fine president for the Carnegie Foundation." And never having been an administrator of anything except for the Institute for Research on Teaching in my life, I said, (14:00) "Why in the world would you think that?" And he looked at me and said, "Well I've read a lot of your stuff. You make such lovely distinctions." And I thought to myself, "You know, here we are decades and decades later, and it turned out that the response that I gave my future brother-in-law was remarkably prescient. That that's what I do, I make distinctions."

AUDREY AMREIN-BEARDSLEY

You predicted your own destiny.

LEE SHULMAN

I did. I did. So, be weary of what you say. It may anticipate more than you think.

AUDREY AMREIN-BEARDSLEY

So three degrees from the University of Chicago by the time you were how old?

LEE SHULMAN

24.

AUDREY AMREIN-BEARDSLEY

24. So you had a bachelor's in philosophy,

LEE SHULMAN

A bachelor's with a concentration in philosophy. In Chicago, everyone took the same courses at the University of Chicago. Then if you had, as I did, a year left before you could get a bachelor's degree because you had to spend four years, you had to concentrate in something. So I did a bachelor's thesis, a tutorial in epistemology because I thought that was interesting. You know, where does knowledge come from? (15:00) What does it mean for people to know? Not really anticipating that would be what my career would be about.

AUDREY AMREIN-BEARDSLEY

Sure. And then the PhD is in educational psychology by the time you were 24?

LEE SHULMAN

Yeah.

AUDREY AMREIN-BEARDSLEY

That's pretty amazing.

LEE SHULMAN

Well, you know, I had this wife and set of responsibilities, and was ready to get on with it.

AUDREY AMREIN-BEARDSLEY

You studied with Benjamin Bloom?

LEE SHULMAN

I did.

AUDREY AMREIN-BEARDSLEY

Acknowledging the influence of your mentor, you created a new taxonomy, Shulman's Table of Learning?

LEE SHULMAN

Many years later.

AUDREY AMREIN-BEARDSLEY

What did this one have that Bloom's Taxonomy did not?

LEE SHULMAN

It wasn't what it had that Bloom's Taxonomy didn't. When Bloom did his work with his collaborators like Masia and others, they started with the cognitive taxonomy. That was the taxonomy for many years. It, in some ways, reflected both the power and the narrowness (16:00) of the perspective that I developed at the Yeshiva, but it was all about the work of the mind. It was all about intellect. It was all about cognitive understanding. And, in fact, it was called the Bloom's, the Taxonomy of Educational Objectives: Cognitive Domain. They recognized in the very beginning that they would need parallel taxonomies that dealt with what for them were two other domains, the affective, or emotional domain, and the psychomotor, or the performance domain. And these came out years later, but never really had the impact of the cognitive, which remains, I think to this day, probably the most widely used and translated across the world from looking analytically at learning. And I was by then the president of the foundation, and what had happened to me at the foundation, (17:00) in large measure because of the people I recruited to be my colleagues because I really recruited people to the foundation who in significant ways, probably even more than I anticipated were substantively and philosophically different from me. So that, I suppose in retrospect, I think of it like Abraham Lincoln's cabinet, which was a, what was the name of the book that was written? I forget, but it talked about the diversity of views that he had organized into his cabinet. So I began to realize I was thinking much more about the intellectual relation to the moral and the emotional. These ideas were beginning to penetrate each

other, and you couldn't really understand the intellectual without the performative, and the practical, and the what could people do. (18:00) But they wouldn't do anything unless there were emotional, or affective, or motivational components. And I became more and more dissatisfied with thinking about these as separate domains. So the Table of Learning was simply a way of trying to blend into a single analytic framework, those intellectual, and moral emotional, and social, and performative. And in the same article, I kind of look back at the end of the article and still try to point out again something I would not have been able to do when I was less mature, even with this attempt to blend all these things, here were some things that I still had left out and hadn't done justice to. Which, again, I think is one of our responsibilities. We've got to try to be as penetrating as we can in our work, and try at the same time (19:00) to be cognizant of what we've left out. You've got to leave stuff out, or you'll be so broad and fuzzy that you'll illuminate nothing. It's kind of like having a spotlight that tries to covers a stage as you open it up, and it's so large that at a certain point there's no light on any one point of the stage because you've broaden. So if you want to see something sharply, you've got to narrow the beam. But then to see the whole stage, you've either got to get other folks with other beams and work with them collaboratively. Or you acknowledge, look, this is what I understand—I'm really clueless about the rest of it. And before you got into action on these ideas, make sure you've taken account of the rest of it. Or you'll make some deep errors.

AUDREY AMREIN-BEARDSLEY

What brought you to Michigan State?

LEE SHULMAN

It was the only job offer I had. I mean, I'd like to be able to say I put these...

AUDREY AMREIN-BEARDSLEY

You were turning them away. (20:00)

LEE SHULMAN

Right. No, No. One of the things about Chicago, Audrey, is that it was again, its weakness and its strength, my colleagues at Chicago didn't give a damn about what the rest of the field was doing. Their view was, at Chicago we break new ground. We go where the problems really are. Eventually the rest of the field will catch up to us. And so when Joe Schwab did curriculum theory, he didn't do the same kind of curriculum theory that everybody else was doing. When, my orientation towards learning was very cognitive. You know, asking questions about how do people think and about the mind, at a time when all of psychology was behavioristic. So I go out to interview at Michigan State for a learning position, and I thought I had done a great job. Well they concluded (21:00) halfway through the first day that I didn't know the field of learning at all because I was giving no attention to people like Thorndike, and Hall, and Spence, Osgood, who were the key people. The fact is, I thought they were laughable. I was reading Bruner, and I was reading Herb Simon, and this was the early 60s. This work was younger than new. So I didn't know any of the literature that people saw as the learning literature. So I never got an offer for the job that I applied for, and I thought I was going to be unemployed my first year after the PhD. And then I got a very late call from Michigan State, offering me a job I didn't even know was there, which was teaching the broad undergraduate ed psych course to 500 students in the morning and 500 students in the afternoon. And I learned later that I was the second person for

that job. And they finally, when they were turned down by their first choice, they remembered me, and I think my virtue was I didn't seem to know anything in particular, much, you know, hardly learning. But I seemed to know a little about a lot of stuff, and maybe that would work well for the introductory ed psych course. So it worked fine. But that's why I went to Michigan State. I think Judy and I, Judy began to teaching fourth grade at the time in the area. You know between us, I was making 9,000 dollars for 12 months, and she was making 4,500 or something. We had this experience of being unbelievably wealthy. But it was a great place, and where we thought we were going to go for two or three years. We ended up spending 19 years there.

AUDREY AMREIN-BEARDSLEY

19 years there. While you were there, you worked with your roommate and good friend, Arthur Elstein. Tell us about Arthur.

LEE SHULMAN

Arthur and I met at summer camp, same place I met Judy. (23:00) He came from Chicago as well, University of Chicago. We had been, we had shared an apartment as students at the University of Chicago. He was a graduate student—I was an undergrad. We shared it with two others, and we were each other's best men in our respective weddings. We were very, very close. Arthur got his PhD in clinical psychology and human development and went off to Harvard and joined the medical school faculty there. And I went to Michigan State. In the late 60s, I was by then a full professor in the ed. school, and a guy comes into my office, introduces himself as the dean of not yet existent medical school at Michigan State. He said, "I'm Andy Hunt, I come from Stanford where I was the professor of pediatrics. We're starting a new medical school here. Unlike a lot of people in my field, I think that educating physicians is much too important to be left to other physicians. And I understand (24:00) that you study how other people solve complex problems." I said, "Yeah, you could say that." "Well I think that is what medicine is all about. Would you be willing to take 50% of your appointment and move it to the medical school and help us learn how to teach people to solve problems?" That sounded like a neat possibility, beside which the medical buildings, which were quite new, were the only ones on campus that were centrally air conditioned. I think you're married to somebody that grew up in mid Michigan, so he can tell you about what the summers are like in mid Michigan, and air conditioning is to be valued. Anyway, they immediately encouraged me to start some research on how physicians solve problems and make diagnoses. And I thought to myself, "God, this could be very exciting, but it's a lot to do alone." So I persuaded my new colleagues (25:00) to recruit Arthur Elstein from Harvard to come to Michigan State so that we could do this work together. You know Arthur's first reaction was, "Leave Harvard for, you know, a cow college in the Midwest?" But the more he saw the potential of what we could do in helping to start a brand new medical school and this really pioneering research, we pried him away from Harvard. He came to Michigan State, and we began a ten-year collaboration on medical problem solving that resulted in a book that was published in 1978 by the Harvard University Press that remained in press for 30 years, still one of the most widely cited, if not the most widely cited book to this day on that topic of how physicians solve diagnostic problems. It certainly shifted my whole orientation on how to look at teaching because I was already cognitively inclined, but the work on physicians really shaped (26:00) up a lot of stuff. And it changed Arthur's career because here's somebody who was a clinical psychologist, you know, whose dissertation was on the Rorschach Test. He eventually became the president of the Society for Medical Decision Making and the first editor

for the journal for medical decision making. I mean, he became the leading person in that field. It was just a wonderful, I mean, it's a wonderful example of accident, and chance, and good fortune of utterly changing the course of somebody's career.

AUDREY AMREIN-BEARDSLEY

To this day he says that that book is your most significant accomplishment.

LEE SHULMAN

Oh, he thinks that's my most significant accomplishment?

AUDREY AMREIN-BEARDSLEY

Yeah. But he also remembers a time where you, I think he served as your counselor, your junior counselor, or you served as his junior counselor?

LEE SHULMAN

Yes, at camp.

AUDREY AMREIN-BEARDSLEY

There was a night where you had a cabin of 13-year-old boys, and what happened after you turned the lights off? Do you remember?

LEE SHULMAN

I wonder (27:00) if he's confounding several different stories.

AUDREY AMREIN-BEARDSLEY

He said you were on the porch of the cabin listening to the boys, and one was...

LEE SHULMAN

Oh, yeah. I didn't think that was with Arthur. I actually think it was in another setting. I think the story that he's telling you was when we turned off the lights, and the kids had thought that we had left. But the counselor that I was junior counselor to and I were very quietly sittin gin the front half of the cabin, which is somewhat separated, in our part of the cabin, and listening to these kids who were 13 year old boys discuss sex. It was great. There was one boy who actually had the information correct, and he was proceeding to regale to the other kids with the details of the sex act. The other kids were listening (28:00) with, all lying in their beds in disbelief, in disbelief. You know, they were saying, "No, no, that can't be the way babies are made and women get pregnant." Finally, one little boy, whose voice we recognized even in the dark said, "Well that can't be because my mommy's pregnant now, and I know she and my dad didn't do that." And the other kid who was telling the, giving the instruction said authoritatively, "How can you be so sure?" And the first little kid said, "My dad wouldn't have the nerve."

AUDREY AMREIN-BEARDSLEY

To do that to my mommy. That's hilarious. What about the swimming pool in Champagne, Illinois?

LEE SHULMAN

I don't remember that story.

AUDREY AMREIN-BEARDSLEY

You were in a fancy hotel with an outdoor swimming pool. You had to take a shower before you could go out to a pool, and you came out on the pool deck, and you forgot something?

LEE SHULMAN

Oh, is that when I forgot my bathing suit? (29:00)

AUDREY AMREIN-BEARDSLEY

Yes.

LEE SHULMAN

Well, you know, I had been swimming with all guys for so long at the university. Yeah, I didn't remember that one.

Video 2

AUDREY AMREIN-BEARDSLEY

So tell us about the Institute for Research on Teaching at Michigan State that you developed in 1976.

LEE SHULMAN

Well, you know we had being to the research on medical problem solving, and that was really going very well. As I say, it was sort of changing the way I, you know, looked at what do we need to do in studies of teachers to get beyond the orientation of process product research where basically we're sort of looking mechanistically at what teachers did and trying to understand its impact on student achievement. As it happened, 1973, I left on a sabbatical for a year. I had a Guggenheim fellowship that year and came out to Stanford. For the year, Lee Cronbach, the late Lee Cronbach was my host and sponsor, and (1:00) the leading person on the study of teaching at Stanford at the time, a person who was in many ways David Berliner's mentor, was N.L. Gage, Nate Gage, and I had expected to see a lot of Gage, even though I disagreed with nearly everything that Nate was doing. But Nate went to Washington to create a national effort to plan the next decade of research on teaching. He sent to a number of people at Stanford, including me, the outline for the planning process, and I looked at it, and our mutual friend, Dick Snow, came in and said, "What do you think?" And I said, "Well, it's garbage." He said, "Why?" I said, "It's nothing but kind of testimony of the past. I mean, it's all the stuff that's going on now, and Nate doesn't realize that the study of psychology is going through a dramatic revolutionary change (2:00). The future is cognitive, not behavioristic, and the way we ought to be looking at teaching as acts of mind, as decision making, as problem solving. The only other person writing about that at the time was a Stanford graduate named Richard Shavelson, who had just recently graduated, was a good friend to David Berliner's too. In any event, Snow persuaded me that Gage would listen if I wrote him a note about that. So I wrote him a long note arguing that that was a mistake, and he writes back. You know, there was no email in those days. He writes back, almost by

returned mail saying, “I think you may be right, and so I would like to devote one of the 10 panels of the planning process to this idea of teaching as information processing. But if you’ll chair it.” So I said, “Oh, my god. I’ve got a sabbatical. (3:00) I’m trying to do some work.” So I decided I had to. So I created this panel. It was part of the, it was the only one of the 10 panels that really had that orientation. And I got a bizarre set of people to join the panel. Sarah Lawrence-Lightfoot, Tom Good, Phillip Jackson. I mean a wonderfully bizarre set of people, all of whom thought of teaching as involving acts of mind in some sense or another. But we submitted our report and heard nothing. And then out of the blue comes an RFP from the feds from the National Institute of Education to create a new institute of research on teaching that in a sense would be the successor to the Stanford Center for Research and Development of Teaching, which had been here for 10 years. We knew that Stanford would compete and would assume (4:00) that they could win, and in fact, some of our best friends like David Berliner, who was then with Far West Lab, joined Stanford in this collaboration. They had 10 institutions working together in a collaboration, and we at Michigan State decided to go at it alone and put a proposal together that was against the grain and argued for creating a national center for the study of teaching that would focus on the teacher as thinker, problem solver, planner. It would be very cognitive. What we learned later was that there were 20 reviewers that reviewed all of the proposals, and we were named first on 19 out of the 20 proposals, in spite of the fact that we were only from Michigan State, not from Stanford and Harvard and those. But the ideas were better, and I think, first of all taught me that ideas trump, it really matters if you go against the grain. And a year later, Judy Lanier, who was then the director of teacher ed (5:00) at Michigan State, an extraordinary teacher educator and talent, thinker, and I co-directed that institute. And it went on in its original form for 10 years. I mean after I left for Stanford. I think we helped shift the direction of research on teaching, to the direction of teacher thinking, teacher knowledge, teacher conceptions, in ways that are probably now the dominant ways of doing research on teaching.

AUDREY AMREIN-BEARDSLEY

Bob Floden, who worked with you there.

LEE SHULMAN

He did, absolutely. He was one of the first people we hired.

AUDREY AMREIN-BEARDSLEY

And he says that was, has been, in his mind, your most significant contribution to the field to date.

LEE SHULMAN

More important than medical problem solving?

AUDREY AMREIN-BEARDSLEY

Different perspectives, right? When speaking at AERA in 1985, he remembers that you criticized George Bernard Shaw for saying, “Those who can, does; and he who cannot, teaches.” What would be your version of this old adage? (6:00)

LEE SHULMAN

Yeah that was my presidential address to AERA, and I began with Shaw's very well-known statement and ended the talk with something like, "He who can, does; he who understands, teaches." That ended up on t-shirts in a variety of places, including, I think, at Arizona, in fact. I'm thinking it did. It ended up really having a, that talk, which was 10 years after we began our Institute for Research on Teaching kind of signaled another major shift in my work. So that's a kind of crossroads too. (7:00)

AUDREY AMREIN-BEARDSLEY

How do you think that we elevate the profession of teaching to a higher status?

LEE SHULMAN

We don't. I mean, there's not much we do. The teachers do. I think that the problem teaching faces as a profession is that it looks so ordinary, and it's so familiar, that, you know, it's almost like watching golf on television. You watch a golfer hit that golf ball, and it just looks so effortless, and you just don't have any idea of how complicated that swing is and how many thousands of hours of practice it takes to get that swing. And then you look at some of our great golf champions, and they hit periods of really bad golfing. I mean, Tiger's (8:00) in that now because they realize that something small has gone wrong with their swing, and they've got to reconstruct. And you know, the teaching is like that too, that any, you know, context changes, you change, something your kids change, and you've got to redesign that pedagogical swing, that it's not something that you get right and it's fine forever. I mean I said because I, you know, moved for a number of years back and forth between medical education and teacher education, and one of the things that I said, in fact, wrote in the volume honoring David Berliner's mentor, Nate Gage, that Nate and Barak Rosenshine edited, that the only time medicine is even remotely as difficult as the average day of a third grade teacher is in an emergency room during a natural disaster (9:00) because, you know, physicians have this and surgeons, they have this enormous privilege of dealing with their patients one at a time, and it's not even one-on-one, it's very often they've got help. They don't have any classroom management because the first thing they do is make you go into a cold room and take your clothes off. It's not exactly like you feel a sense of agency and empowerment. And then they come in with that white coat and that stethoscope, and you know the closet is filled with cold metal instruments that at a moment's notice they might decide to intrude upon you. Now, I mean, it's really a very different, and you know, a lot of medicine is very routine and quite straightforward. You know, you come in with a rash, well if it's wet make it dry, and if it's dry make it moist. I don't want to trivialize medicine, but people are prepared to ascribe incredible complexity, they watch *House* too much, (10:00) to medicine. They think that teaching is all about hanging out with the kids and telling them stuff. And they just don't appreciate its enormous complexity and richness. You know, societies have been trying to elevate the status of teaching for a really long time, and I think teaching is, for the foreseeable future, going to be a profession enormously valued, but treated with less than the value it deserves. And that means economically. That means status terms. You know also professions that deal with the young, with kids, are not treating with the same kind of regard as professions that deal with older people. I mean it's just a whole bunch of stuff. But (11:00) I think the work that we did on the National Board is an example of something that raises the prestige and because when people realize that the majority of the people who sit for the Board's don't pass for the first time. And they say, "Oh, gee, really?" So there's stuff that we can do. But it's an upward climb.

AUDREY AMREIN-BEARDSLEY

What are your perspectives about content and pedagogy and the relationship between those?

LEE SHULMAN

You know I think that the, sometimes your biggest ideas are the ones that in retrospect elicit a kind of, “duh” response. In about 1981 or 82, we were visiting the, I think the University of Texas, there was a conference on teaching, and I think I was in transition to Stanford, and I gave a talk, and I called it, “The Missing Paradigm (12:00) of Research on Teaching.” I asked the audience to, before I began, to write down to predict what I thought was the missing paradigm. It was a talk that asked people to focus on the content of what was being taught. I said, “We treat teaching as if it is domain independent, as if teaching is teaching is teaching, and even a lot of the work we did these two first years of teaching was heavily cognitive, but not focusing on the what of what was being taught. I was beginning to get this sense that the teaching of biology, and the teaching of literature, the teaching of reading, and the teaching of math, these are enormously different, and that until we came to terms with that seriously within our research, (13:00) that the research would sort of asymptote very early in terms of its effectiveness. At the end of the talk at Texas, not a single person in the audience had anticipated that it was content. That became the focus of my work as soon as I landed at Stanford, looking at the intersection of content and pedagogy. Out of that emerged this very rough and ready kind of set of distinctions between teacher knowledge of content, teacher knowledge of pedagogy, and then there had to be something else. There had to be a domain which was neither, and yet both. Out of that emerged, first hypothetically, the notion of what I think we first called content specific pedagogy. (14:00) Eventually, I guess, I arrived at this almost unpronounceable pedagogical content knowledge, which, thank God, somebody began calling PCK, which is what it’s called in Japan and a few other places because people couldn’t say the rest of it. And the notion that what makes teaching special, is that it has its own very unique domain of understanding and practice, and it’s where principles of pedagogy and the range of content intersect, and then potentially every one of those intersection is a unique problem space. So I found myself kind of driving the field to more and more content pedagogy particularism, and in order to do that, (15:00) I kind of launched, as did a number of my colleagues and students, an all out attack on general pedagogy, which it was methods courses were methods. So I, you know, I say two things here, one is that I still believe strongly that the essence of great teaching is the pedagogical content knowledge, which you can’t do without a great deal of content knowledge and pedagogical knowledge experience. I didn’t realize at the time how much my work in medicine kind of presaged that because what we learned, our biggest finding in medicine that Arthur and I did, Arthur Elstein and I, was that medical diagnosis is not generic. There are not good and poor (16:00) diagnosticians, it’s domain specific. You can be really good at the diagnostics of cardiovascular problems and suck with regard to the diagnosis of gastroenterological or neurological problems. We were able to do that through our years of research and show how domain specific that was. I didn’t immediately transfer that to teaching. So that was really important. That drove a lot of the work. That’s frankly why there are more than two dozen board assessments for the National Board because that work that we then did on the National Board’s creation flowed directly out of our work on teacher knowledge, which was pedagogical content knowledge dominated. So it had real consequences. In retrospect now, now that I’m older and wiser, I think that we overdid our attack on generic. In other words, there clearly are some aspects of teaching that involve generic

(17:00) practices that do cut across subject matter domains, and there are, I mean, the analogy I now use, let's say for teacher assessment where I really attacked generic approaches to assessing teachers, and one domain, you know, how well is that teacher teaching mathematics, say. Is that if you, if you look at evaluation, I think back at the deli. We got evaluated at the deli twice a year in Chicago, but not by the Michelin Guide, who never came close to the Shulman Delicatessen, but by the Board of Health, and they use the same generic rating scale as they used at the fanciest French restaurant in the city, or at the burger joint down the street, or at our deli, or at the Chinese restaurant a block away because they weren't asking, "How good is the food here?" (18:00) They were asking, "Is it safe to eat here? Is this a safe place to eat?" So they could use a generic approach. And that was a very important question because if it ain't safe, then I don't care if it's the French Laundry, I don't want to go there because I'm going to end up very sick. If you want to know the Michelin guide's questions, and you're doing a French restaurant, then you better have a critic who knows French cuisine, who is capable of evaluating the nuances of differences in French cuisine, and also knows French wines because that's what's being served to enhance the cuisine. You didn't need that to ask if it's safe to eat there. So my view is, if the generic approaches are asking, "Is it safe to eat here? Do these teachers have the capacity to manage classrooms, to develop relationships with kids (19:00) of a generally positive sense?" But it's not a way to ask, "If this person's teaching the quadratic formula, how well are they doing it?" So that's kind of where I am now.

AUDREY AMREIN-BEARDSLEY

And that's what the National Board and your work with the National Board of national teaching standards.

LEE SHULMAN

Yeah.

AUDREY AMREIN-BEARDSLEY

During this time you also became lifetime friends with David Berliner who sounds like and looks like you in many ways; although David thinks that he's better looking.

LEE SHULMAN

It's one of many errors that David has made over the years.

AUDREY AMREIN-BEARDSLEY

What you do have in common also is your food and your food metaphors that you use quite often in your research. What are gribenes, and what is your shared theory about their impact on the circulatory system?

LEE SHULMAN

First off, they're gribenes, now *greebanes*. That, well, you know, these are what our, what some of our friends in the south call cracklings. (20:00) They're, you start with rendering of chicken fat, which is absolutely necessary for any reasonable cuisine. Then you put little pieces of the chicken skin, and onions, and what have you, into the rendered chicken fat, and you fry them until they get very crisp.

AUDREY AMREIN-BEARDSLEY

Sounds healthy.

LEE SHULMAN

That was never the point. That was never the point. It was one of those aspects of cuisine that Judy liberated me from after we got married, except in my case, and I think Berliner's, is the way you cheat on your wife is to go each gribenes when she's not looking. What is their impact on the circulatory system? Well the one theory that Berliner and I share is that contrary to most medical mythology, they do not lead to a hardening of the arteries, but instead that the chicken fat in gribenes act as a kind of vascular Teflon, and they line (21:00) the arteries so that the blood goes woosh! all the way through. That's our theory.

Video 3

AUDREY AMREIN-BEARDSLEY

Out of your work, your most significant scholarship, in his mind, is when you came to work at Stanford. So what brought you to Stanford in 1982, where you became the Charles E. Ducommun Professor of Education?

LEE SHULMAN

Well, we had spent a couple of years earlier at the Center of Advanced Studies for Behavioral Sciences, kind of looking down the hill at Stanford for a year and had some good friends on the faculty. To be quite honest, two or three things happened simultaneously. One was that we had been at Michigan State for almost 20 years, and we had gotten the Institute of Research on Teaching. I mean, it really, it had moved from being a place kind of nobody paid attention to, (1:00) to increasingly seen as the best place in the world for research on teaching and for teacher education. I mean, to this day, and I think it started at that time, when you look at the evaluations of schools of education, elementary teacher ed and secondary teacher ed, Michigan State is rated number one in the country, year after year after year deservedly. I mean, it became the center of that work, an exciting place. But at a certain level, I felt that it was, that I was being treated too well there. It was almost too, not too easy, but too comfortable. You know, Stanford was considered the very best place in the country in educational scholarship then, and they had just hired a new dean, Mike Atkin from the University of Illinois, (2:00) who brought with him a very Big 10, public university perspective on the centrality of teacher education in very researchy ed school. And teacher ed had almost been closed at Stanford a couple of years before that. Why do we need teacher ed? It was that kind of. And in my view was that you couldn't do responsible research in this area without having an ongoing teacher education program that would both a moral exemplar of what you were doing and a laboratory. Anyway, Mike Atkin as Dean, turned that around, and he got them to post a position in this field, even though Nate Gage was still doing research on teaching. And so I think it was a combination of these things. It was not the weather, though Michigan can be trying at times; but it wasn't the weather. It was the chance of coming to a very, very exciting place where, quite frankly, (3:00) the quality of the senior faculty was so high that I was really just one of the guys. I mean, you say I came as the Charles E. Ducommun Professor, I didn't. The Ducommun Chair didn't exist in 1982, and there's a really interesting story there to, and that was that when I was recruited by Atkin, he

offered one of the endowed chairs, and I said, "Sure, that would be great." But then he called with great embarrassment about two months later and said, "Lee, I don't know what to do because some of the senior faculty who were your biggest supporters about recruiting you have expressed some discomfort with you coming in with one of these endowed," there were only four endowed chairs at Stanford at the time, and Cronbach was in one, Gage didn't have a chair yet, (4:00) you know. And he said, "Because there are even more senior faculty here," I was only 44 when I came to Stanford, and I think the notion was, you know, "You ought to get in line." He said, "But I promised you this chair, and I will stick to my guns." I said, "Absolutely not. They're right. I've got to get in line. This is not a time to come that way." And I forget who the chair went to. It might have gone to Gage. I just don't remember. And it turned out, it was a wise thing to do. In 1989, the Ducommun Chair was created for a, with a focus on teaching and teacher education from the preschool to the graduate school. And in many ways, Donald Kennedy was the president then, worked with a donor and built the design of the chair around my work. That was the right chair. (5:00) That was the right one. And it only happened in '89, and it was exactly right, and I think you know who succeeded me in that chair.

AUDREY AMREIN-BEARDSLEY

Yes.

LEE SHULMAN

Linda Darling-Hammond. Another example of a move that improves the quality of the chair, you know.

AUDREY AMREIN-BEARDSLEY

During the tenure here at Stanford, what do you believe was your most significant impact in terms of research?

LEE SHULMAN

Well I think the most significant impact in terms of research was the ongoing work on teacher knowledge. I mean, the stuff on teacher knowledge that led, you know, there was work on how do you look at what teachers know? How do you teach that sort of thing so that it becomes pedagogical content knowledge? The kind of opening up the whole area of case methods, case literature, which was then so magnificently (6:00) pursued by Judy Shulman in her work at Far West and now WestEd. There has been so much work now that continues to go on that deals with this intersection with this case methods stuff. That's been, in terms of generativity, the most generative work that I'll ever do probably. In terms of impact on practice and policy, the most important work was the work that led to the creation of the National Board. But the important thing to realize, and many people don't, they think the National Board as this policy instrument, which we're getting close to 100,000 National Board certified teachers in America, kind of came out of nowhere. It was this big idea, "Oh, let's get measured more, just like medicine, and then we did research and then." It flowed, (7:00) it flowed in, for me anyway, it started with the work on medical problem solving, that flowed into the Institute for Research on Teaching, that flowed into the teacher knowledge and pedagogical content knowledge work, and you see it all culminating in the National Board, the uses of simulation, the uses of multiple assessments because teaching is not one thing, I mean, all that stuff, the strong emphasis on reflection and analysis, rather than only on behavior. I mean, all that flowed. So the National Board is certainly

a practical impact. And what I didn't realize until a little bit later, was that when we moved from the first version of the National Board, which was all using simulations, more this sort of stuff that David was doing subsequently on his work on teacher thinking. You know, using simulations of various kinds. (8:00) We didn't like the fact, even though the simulations we used in the first phase of our work on teacher assessment were extraordinarily powerful, they were decontextualized. And we concluded that teaching is always about the context. It's always about the who you're teaching, and when, and where, and we needed a form of assessment that would capture the context. And we came up with the notion of a teacher portfolio as an assessment. Now this was now 1987, '88, when we moved to the portfolios, so it's 23 years ago, 24 years ago. Everybody told us it would never work. It was sufficiently controlled. It wasn't going to be scorable. Teachers would teach because they would help each other on their portfolios. All of these, and Mike Crisp predicted that none of those innovations last anyways. Not only did the Board make it as a portfolio based assessment, one of the other practical things, as it turns out, to have legitimated was portfolios. (9:00) Now it's almost impossible to find a teacher education program anywhere that doesn't have the portfolio at the heart of it. How what Gardner said to me, was that it took using portfolios for a teacher assessment method for his folks at Project Zero to get over the hump of the use of portfolios for the assessment for the kind of stuff that Howard and Ted Sizer were interested in. So, I think in those terms, the theoretical work on context specific pedagogy, PCK, was probably the most important than the last thing in terms of practice and policy. It was probably the Board, case methods, and portfolios.

AUDREY AMREIN-BEARDSLEY

Portfolios and assessment systems. So given your work with the assessment systems, what are your opinions about America's current accountability and assessment systems?

LEE SHULMAN

Most (10:00) of them are really awful. I think that, you know, here again, when I talked earlier about how sometimes you realize that your best big idea has really serious weaknesses. If I had to look at the most, retrospect, at the most serious weakness in the work that I did and encouraged and nurtured from the IRT right through the National Board work, so now you talking about a chunk of 15 years, my colleagues and I were so very good at attacking process product research that we threw out baby and bath water together. We threw out general processes, which I now realize have a place, what have you, (11:00) and focuses on domain specific one primarily. But that wasn't the biggest issue. But we were so critical of the use of standardized achievement tests, which were the only measure being used to get the product, that if you look at our work over those years, and you look at how the National Board was designed, we threw out standardized achievement tests as an outcome measure, but we were slow to replace it with some other way of documenting and measuring impact on students. So if you look at the portfolios, almost every portfolio entry looks at student work, but it never occurred to us that people at the policy level wouldn't trust teacher evaluations of student work as an adequate measure of what students were learning. And so (12:00) for a long time, I know I was just so oriented towards teacher knowledge and how it related to what teachers were able to do and how to relate it to particular aspects of student work, that I think I lost sight of the broader notions that policymakers were carrying around with them of teacher outcomes, of student outcomes. Now, I still think the standard, the standardized achievement tests are a lousy measure, but it has taken us years, and we're still not there yet, to develop alternative measures that will earn the trust of

the policymakers, who are often clueless of this stuff. But the fact is, that's our audience. So I am much more, you know (13:00) we just had a panel review our National Board work that Bob Lynn shared, and Linda and I were both on it and Lloyd Bond, Rick Hess, Doug Harris, an economist, trying to evaluate how the National Board could begin to incorporate more evidence of student learning into their portfolios. And the most important idea in the report is, student learning is different from student achievement. Learning is a much broader concept with many more facets to it that if it gets reduced to student achievement, and that gets reduced to standardized achievement tests, then you're a wreck. So, you know, I think the attempts now to develop more pluralistic assessment systems that come at this from different perspectives that include ways of trying to document impact on student learning (14:00) are the way to go. I see very little of this going on right now. It's expensive. It is going to require going back to trusting teacher judgment more than we have in recent years. But then it also means really goosing up the quality of teacher preparation and professional development. So you make sure that teacher judgments are resting on sufficient grasp of the evidence about student learning, so that it's worth trusting with more and more higher stakes evaluations.

AUDREY AMREIN-BEARDSLEY

Around this time you also met Gary Fenstermacher, and he remembers a time that you, David Berliner, and he sat in a room together at AERA dissecting the research on teaching, and this experience still ranks as one of the highlights of his academic career. He also cherishes the memories you have built over the last three years, during (15:00) which you have written together, critiqued, in print, each other's work, and live, gone to plays and musicals together, cruised the seas between Athens and Venice, been guests in one another's homes, ate large steaks, and drank fabulous and lousy wine together...

LEE SHULMAN

Both, both.

AUDREY AMREIN-BEARDSLEY

Joined your good friends, Rich Shavelson and David Berliner, and all of your remarkable spouses in celebrating one another's birthdays, all now doing this for 30 years, and there's always your Jewish jokes. Do tell one.

LEE SHULMAN

Tell one? Yeah, there's a, I mean, there are so many, Audrey. But one of the ones I like best, which to this day I use in many of my talks is the one about the aging Jewish schoolteacher in Poland, who's sitting alone in his small house with his wife of many years, and he looks up from his books, (16:00) and he says, "You know, I have been thinking, Audrey," he says, "If I were the czar, I would actually be richer than the czar." And she says to him, "David, how could you possibly be richer than the czar? If you were the czar, you'd be just as rich as the czar." And he said, "No, no, I've really been thinking about this. If I were the czar, I could still do a little teaching on the side." So that's the kind of, there's a kind of irony there, right, you know. The sort of notion, and for me, the reason I think I use that joke a lot strategically, especially in higher education situations is that one of the ways in which universities have corrupted teaching is that they've conveyed the message that the real role of university professors do research and to write, and then they do a little teaching on the side. (17:00) And, in fact, when you talk about the

prestige of teaching, I think that gets communicated to society more generally—that teaching is something any of us can do, and if we had a little extra time, we could do a little teaching on the side. Nobody thinks they can do neurosurgery or archeology on the side.

AUDREY AMREIN-BEARDSLEY

And these are the things we can get bought out of as well.

LEE SHULMAN

Yeah. Yeah, we get bought out of, we have a teaching load, and we have the privilege of doing research. And I think that...

AUDREY AMREIN-BEARDSLEY

Even the word “load” alone.

LEE SHULMAN

Oh, sure. The burden that we beasts carry.

AUDREY AMREIN-BEARDSLEY

Speaking of student, Suzanne Wilson. You mentored her, she was your doctoral student, and she says you have something with strong women—that you align with many strong women, including her, and Pam Grossman, and Pat Hutchings.

LEE SHULMAN

And Judy Shulman.

AUDREY AMREIN-BEARDSLEY

And Judy Shulman—there you go. You’re married to one. She says that your most significant accomplishment is that you understand that teaching and teacher education are topics well suited for serious intellectual investigation. You did this well before (18:00) almost anybody else understood this. AERA’s Division K, Teaching and Teacher Education, is as large as it is, and the National Board is as prominent, is a testimony to the insight, and your research, and your commitment to the field.

LEE SHULMAN

That’s very kind.

AUDREY AMREIN-BEARDSLEY

What characteristics do you think are the ingredients of a strong teacher education program?

LEE SHULMAN

I think a strong teacher education program is a program that takes teacher very, very seriously. That doesn’t simplify it. I mean, that treats it as seriously as we treat the preparation of physicians or surgeons. If, let’s imagine that we have a very rigorous program for preparing surgeons (19:00), and someone came along and said, “You know, the surgeon-patient interaction becomes enormously complicated when you have to teach,” I’m sorry, “have to treat patients coming from different cultural backgrounds and different language backgrounds. And unless

future surgeons understand the complexities of that, they will not be able to treat people well, and therefore, we have to add courses and experiences with non-native speakers of English, with different ethnic groups, to the preparation of the surgeon.” That would be a very good idea, but you would never do it by saying the time we have to prepare a surgeon is fixed, so let’s remove (20:00) five of the courses in the doing of surgery and replace them with these other five courses because we have to have a program committed to social justice. And I think to myself, “Just a second, we’re all committed to social justice. But, do we achieve social justice with a wider variety of ethnic and language groups by training physicians who will not be able to kill their patients at an equal rate, no matter what their cultural background.” We can’t relieve the standards in one place in order to meet standards that are terribly important in others. And one of the things I’ve seen is that as concern that reflects a real (21:00) necessary awakening, or awakening for the first time of issues of social justice that involve teachers understanding more broadly, the nuances, the, sometimes there’s not nuances, the variation, and background, and language, and values, and orientation that kids bring with them to the classroom, and the need for us responsibly to teach students better, we need to understand and deal with that, and respond to it proactively and sympathetically. That the way we do that is not to spend less time with the teaching of mathematics, or preparing teachers to teach higher order thinking, or to, you know. I think that’s what’s happened, is that teacher education programs in my mind have stopped taking teaching seriously enough. (22:00) And as we become more cognizant of the social and cultural values that must accompany qualified teaching and effective and accomplished teaching, we somehow have fallen into, and too many teacher education programs, in the trap of thinking that if you have a socially conscious teacher the other stuff will take care of itself. It won’t. It absolutely won’t. I am shocked at how little mathematics elementary school teachers still get away with. And then we wonder why the mathematics performance of our students gets worse and worse in international comparisons. And even more frightening, fewer and fewer of our students want to pursue careers in the STEM fields. Without immigration, and God bless immigration, we’d have no engineers and scientists left or mathematicians, and that’s an overstatement. And yet, (23:00) nobody suggests that maybe the problem is that we don’t take teaching seriously enough and we never permit a surgeon to get out there that doesn’t exquisitely know anatomy, or physiology, or pathology. But we’re letting teachers, who we do ensure are socially conscious, to go out and teach mathematics badly, to model negative, scared attitudes towards science. I mean that’s unconscionable. So I guess my definition of a good teacher education program is one that recognizes that justice is never achieved through equitable distribution of mediocrity. And true excellence is never achieved if the students who get it fastest do so (24:00) on the backs of the kids who don’t. But that these, it’s like hydrogen and oxygen, you can’t do with one of them. They’re both there, or nothing’s there. I think we’ve lost sight of that in too many of our teacher ed programs. Teaching is hard.

AUDREY AMREIN-BEARDSLEY

Teaching is hard.

LEE SHULMAN

And it needs a lot of routine. The other mistake we’ve made is we, maybe I can take some responsibility, though I think it was around since Dewey, the notion of thinking that preparing a teacher is teacher education, not training. There’s nothing training about teaching. Hell if there is no training. A great deal of teaching is routines. Learning the routines. Managing them.

Internalizing them. Some of the routines are domain general, many of them have to do with management, making it a safe, civil, interactive environment. And many of them are domain specific. How do you do the homework check in the mathematics (25:00) for fourth grade so that it takes five minutes instead of 25? So, again, the emphasis on routine has got to be brought back as well.

AUDREY AMREIN-BEARDSLEY

For a decade up until you left the position in 2008, you served as the president of the Carnegie Foundation for the Advancement of Teaching. When you became President, you warned them that you had no administrative experience and had carefully avoided getting any. Tell us about your tenure there.

LEE SHULMAN

I wasn't lying to them. I had avoided being department chair, or a dean, or associate dean, never did any of that work. I had directed the Institute for Research on Teaching, but that, I didn't have to worry about tenure and stuff like that. But the answer is very simple, the job of the leader is not to manage, it's to, the job of the administration is to minister. It is to create a (26:00) culture where you surround yourself with the most talented people you can, and you create the conditions under which they do such good work that you just sit back and are enveloped by a feeling of joy at their accomplishment. When the search committee interviewed me for the job, they said, "What's your philosophy of management?" I told them, "It was all captured in a Yiddish word 'nachas,' and that is the Hebrew word for the joy you get out of the accomplishments of the people you love, not of your own." And that included recognizing that the first hire that I had to make was people who knew how to manage a foundation, how to run the foundation, the budget, and all that stuff. I hired the very best people I could and then surrounded (27:00) us with just a marvelous range of scholars and practioners, and we had a real collaborative team effort and a culture in which people had nachas from each other's work.

Video 4

AUDREY AMREIN-BEARDSLEY

Pat Hutchings served as your Vice President there.

LEE SHULMAN

She did.

AUDREY AMREIN-BEARDSLEY

And she says that during your time there you changed the way colleges and universities thought about and treated teaching in general, even beyond teacher education. What was your teaching as community property idea?

LEE SHULMAN

Well the teaching as community practice, I think the important thing to recognize with the Carnegie Foundation is that it was 92 years old already when I became president, and we had a

heritage. You know, my predecessors included people like John Gardner and Earnest Boyer. And so it was the foundation for the advancement of teaching. That's what it was about. What we, what we emphasized was that the choices for faculty in higher education, and again, this was something that Boyer really began, and I think we enriched, was not between doing scholarship and doing teaching, but recognizing (1:00) that they were both essential and that at its finest, teaching not only was a form of scholarship, which was Boyer's thought, but it was an arena for doing some of the very best research on pedagogy. That members of different disciplines, be that biologists, or classicists, or accountants, or nurses could advance their fields most rapidly by studying the teaching and learning of their own students and the impact of their own teaching. So we created the first advanced studies center for teachers, which including both higher education and K-12 faculty. And we just pursued a lot of the scholarship, research on teaching and learning in that way.

AUDREY AMREIN-BEARDSLEY

What about your recent study on the new educational doctorate at Carnegie?

LEE SHULMAN

Well that was about the, that was the last thing we did as I was wrapping up. We had done (2:00) a six-year study of the PhD across a number of fields, education was one of them. And I realized that education was utterly different than the rest of them because 90% of the people who pursued doctorates in education never intended to pursue scholarship. They were preparing themselves for educational practice, leadership positions generally, or curriculum positions, or policy positions, but they weren't going to become academics; yet we were training them all the same way. So, I had invited some of my colleagues like David Berliner and Virginia Richardson to write essays to help guide us towards the improvement of the PhD and education as a field of scholarship. But most PhD were more like preparation for practice. They were more like MDs; and yet they were teaching people to practice by having them do doctoral dissertations, and they were just utterly mismatched. And so we began to create a notion of what we (3:00) eventually called the Carnegie Project of the Education Doctorate, which was to try to encourage a prestigious, rigorous, professional doctorate for education. That work is still going on. There is still a Carnegie Project. There are about 25 major doctoral institutions around the country that are a part of it.

AUDREY AMREIN-BEARDSLEY

We're one of them.

LEE SHULMAN

And you're one of them. You're right. Arizona State is one of them. The state of California gave the Cal State system the right to do professional practice in doctors of education, and the last I heard, about 15 of them have decided to join the project. So, you know, the goal again is not to diminish the value of the PhD, if anything, it's to elevate it by separating what you need to do to enter the life of scholarship from what you need to do to prepare people to engage in the very highest critical levels of professional practice (4:00) of education. Once again, once does not fit all. That was, that is that work.

AUDREY AMREIN-BEARDSLEY

So given everything that you've accomplished so far in your career, what's next for you? What haven't you accomplished that you'd still like to do?

LEE SHULMAN

Oh, well those are two different questions. There is so much that I haven't accomplished, but I'm not going to do. One of the great virtues in having extraordinary students, and you've named some of them, is that you realize very quickly that the better you are as a teacher that the smarter your students are than you are, and the greater their capacity for them to do things that you never could have done by yourself. And part of the joy now is not is being around long enough so that my students have students. And just beginning to see, and they're doing stuff that I never could have done. They're having ideas I never would have entertained. They're criticizing my research with that kind (5:00) of loving venom that makes it better. No, it's terrific. What I've begun doing now is focusing much more, kind of returning to my Jewish roots, and I'm doing more and more work on trying to create a more active and rigorous field of Jewish education. We have established at Stanford a newly endowed chair and doctoral concentration in research in the intersection of education and Jewish studies. We'll have a new endowed professor appointed I hope in the next few months. And I hope to be able to continue to contribute to that field. And, you know, the ultimate dream is I'd love to see here at Stanford, or someplace else that gets there faster, a comparative field of the study of religious education (6:00), Catholic education, evangelical education, Muslim education. I mean, more students I'm told are educated across the world in religious schools than in secular schools. And yet I think my colleagues at the University find the notion of religion so toxic that they simply are disinterested in it and don't understand the enormous impact that religion and education have on one another. The effect that really good education could have to make religion a more civil part of a civil society, which it tends to be in the United States, but not in the rest of the world. And the impact that religion's lack of embarrassment on teaching character development, moral development, what does it mean to lead a good life? The kind of Dalai Lama's approaches to mindfulness, and empathy, and self-regulation. These are (7:00) often missing in our approaches to teacher preparation and education. So I'd like to see these two worlds brought into contact, and not in the way that Judy Lanier used to describe such relationships like two porcupines mating; but rather with more openness and respect and empathy for one another.

AUDREY AMREIN-BEARDSLEY

Really back to your roots.

LEE SHULMAN

Back to the roots.

AUDREY AMREIN-BEARDSLEY

At Carnegie in 1995, you also met Tom Ehrlich. Every memory he has of you since is captured with your humor. What is it with pastrami and a well-marbled life?

LEE SHULMAN

Well, the folks at the National Public Radio who do the "This I Believe" segment, I think they've just stopped doing it, but they did it once a week for years and years and years, got in touch with me and asked if I would do a "This I Believe" as part of "All Things Considered," a morning show

(8:00) or whatever. And I said, “Well, do I get to choose my own topic?” And they said, “Oh, yeah. You choose your own topic, and then we work with you. But it’s got to be something you can say in four minutes.” So the show I did came on on New Year’s morning, I think in 2007. It’s the only thing that you can get if you Google “Shulman pastrami,” you’ll get directly to this site. I said, “I believe in pastrami. Pastrami not only in the thing in itself, but as a metaphor for a good life, and I distinguished pastrami from mere brisket because brisket, the fat and the lean are layered, so you can very easily separate one from the other. In a really good pastrami, (9:00) the lean and the fat are like they are in a, in a really prime steak. They’re marbled. They interpenetrate. And for me, the metaphor is that if your aspects of your life, your values, your dispositions, your commitments, the way you think, the way you feel, the way you believe, they shouldn’t be cocooned, or siloed, or layered. But rather, the different parts ought to be marbled, so that your values really do animate and inform your scholarship; and I think David Berliner is a lovely example of that, and he probably talked to you about that. And you do it, again, without (10:00) permitting marbling to become corruption and without permitting the mixture to become a kind of mess, and I thought a really good piece of pastrami captures all those values nicely, so that was.

AUDREY AMREIN-BEARDSLEY

What about your Pedagogy and habitat for thought that you wanted to create for teachers?

LEE SHULMAN

Well, when we were trying to build the new building for the Carnegie Foundation for the Advancement of Teaching, the administration, the leadership at Stanford gave us this hilltop above the Advanced Studies for the Behavioral Sciences to build on. It was the site of the old Stanford dairy farm. And yet it was opposed by people who didn’t want Stanford to build on its open land anymore. (11:00) And the major grounds for opposing us was that the land was a habitat for the California Tiger Salamander, and I certainly want to preserve the California Tiger Salamander, and we were really prepared to engage in any efforts needed to protect their habitat. And still we kept on getting attacked again and again for wanting to invade the habitat of the salamander. So I finally issued a statement in which I said, “While we fully regard the importance of the salamander, we simply want to remind our critics that we’re building a habitat for thought, and thought needs to be protected as well. And just as the salamander cannot flourish just anywhere—you can’t just pick them up and put them in Tempe, it would be a little hot and dry for them (12:00)—the notion that you should send people thinking hard about the improvement of teaching and learning to a warehouse in south San Francisco, where they could do it just as easily, doesn’t make sense either. That really good thinking, and good collaboration requires a setting that values and honors the importance of that kind of work. So we dubbed, you know, habitat for thought, I think Tom’s reference to Pedagogy is the notion that, you know, the Rockefeller Center retreat for scholars is called Belagio, which is not, in fact, a Las Vegas casino, but it is a lake in a retreat center in Italy. So I thought, “Well we’ll call our place Pedagogy.” So that was what we had in mind.

AUDREY AMREIN-BEARDSLEY

Now on to set of introspective questions. Who most helped you become the person you are today?

LEE SHULMAN

Well, you mean besides Judy? Because that one's sort of obvious. I would say in some ways if there was, it's not one person. You know, I think early on, it was probably Joe Schwab. In an interesting way it was Benjamin Bloom. Even though he and I went separate ways because I never became a measurement person the way all of his students did, until much later (1:00) when I sort of became one when we did the National Board, although I had Lee Cronbach and Ed Hardle on the team to keep me honest. Ben taught me that data didn't exist, didn't have a life of their own. Can I tell a little story about Bloom and what his influence was? I mean, I was working with him, it was my first research assistantship, and we were working with big, big bodies of longitudinal data because we were trying to do research that led to project Headstart, looking at the early, the impact of early experience. And he began to do statistical manipulations of the data, doing transformations to smooth out curves and stuff, it was sort of boggling my mind. I finally said to him, "Mr. Bloom, can you do that?" And he said to me, "Lee, as a scholar, (2:00) the question is: who is in charge of the data, and who created it? You or the data? The fact is, data never exist independently. Data are data because somebody has decided to observe, and collect, and gather, and analyze them. You can do whatever you want with your data as long as you're absolutely transparent, honest, and fully disclosing about what you did, and how you did it, and what your rationale was because your ultimate judge is your peers who will examine your work critically and decide whether they are persuaded by you or not. And I've never forgotten that notion that Bloom taught me that even the quantitative data that looks like it's so objective was created by people who invented (3:00) instruments, decided what to ask, and what not to ask, decided what counted as an item. I still remember at the IRT, Andy Porter and his research group discovering that the difference that in a fourth grade math standardized achievement test, four items accounted for almost a half a grade equivalent, and on that test there were four items on roman numerals. You know? So, a kind of notion that you have, you can do whatever you want with your data. You have to be inventive and creative. You've got to interrogate that data like you interrogate a text. But then you've got to be totally transparent and honest to your peers about what you did, how you did it, and why, or you're not a scholar. So that was really important. Very profound.

AUDREY AMREIN-BEARDSLEY

What inspires you?

LEE SHULMAN

(4:00) What inspires me? I guess, you know, it would be wonderful to say that what inspires me is a vision of a great society or something; but I don't think it is. I mean, I think it's there, but I think I'm inspired by stimulation and excitement, and really good questions. I think that teaching and research ought to be fun. They ought to be enjoyable. They ought to give you as much opportunity to laugh as to cry, or to, you know. I think that's what keeps me inspired. And I hope that, you know, that source of pleasure is more frequently directed towards (5:00) things worth doing than not worth doing, though I don't think that's always the case. But, yeah, that's what inspires me.

AUDREY AMREIN-BEARDSLEY

What do you find uninspiring?

LEE SHULMAN

Yeah, stuff that's boring. I mean, I long ago decided that if you want to understand the influence of somebody's work, it is rarely kind of the quality of the thought abstractly. Dewey was influential in spite of the fact that he wrote badly and spoke, probably, even more badly. So, but I think he had the good fortune of his ideas came into the hands of people like Kilpatrick, Schwab, who added a certain element of excitement and accessibility. Jerome Bruner's work (6:00), to a large measure, not only the quality of his thinking, but the quality of his writing, the way in which he presents the ideas. So I find things that are boring, needlessly abstract, I want things with example and concrete applications. And I find relentless abstraction just puts me to bed, or just gets me to go watch a football game.

AUDREY AMREIN-BEARDSLEY

What is your favorite word?

LEE SHULMAN

Well my daughter thinks it's pedagogy. I like the word, teaching, a lot. I like the word, nachas, that Yiddish word I told you about, the pleasure you get from the accomplishments of others. Yeah, those are good words.

AUDREY AMREIN-BEARDSLEY

What is your favorite curse word?

LEE SHULMAN

Shit. But, you know, (7:00) at a certain point you use something often enough it loses a lot of its...

AUDREY AMREIN-BEARDSLEY

Part of your vocabulary?

LEE SHULMAN

Well, yeah, you know, I'll embarrass my wife by telling the story of our, of one of our kids coming back from playing with a neighbor across the street when he was about six, and he was crying, and Judy said, "What are you crying about?" And he said, "Mrs. So-and-so said that shit's a bad word." I don't know, it just sort of happened.

AUDREY AMREIN-BEARDSLEY

What profession, other than your own, would you have liked to attempt?

LEE SHULMAN

I would have loved to be a writer for *Seinfeld* or *Saturday Night Live*. I mean, I see on TV the reminiscents of the people who wrote for the *Sid Caesar Show*, you know Neil Simon, Larry David, and this group, and say, "Ah, that would have been fun." And the closest I ever come

(8:00) to that kind of thing is when Berliner, and Fenstermacher, and Shavelson, and I, and our spouses get together. It gets pretty funny.

AUDREY AMREIN-BEARDSLEY
Good?

LEE SHULMAN
It gets really good and clever.

AUDREY AMREIN-BEARDSLEY
A good writing team?

LEE SHULMAN
Talking team. Sure.

AUDREY AMREIN-BEARDSLEY
What profession, other than your own, would you not have liked to attempt?

LEE SHULMAN
Wow. Okay. It'll seem odd. I think I would have found it extraordinarily difficult because of my own ADD, which I think I probably would have been diagnosed with if I were young today, I would have had trouble having the discipline to the job I value most in the world myself, which is to teach school for 30 years (9:00) as a career. It's so hard. I mean, I would have loved to do it. I just don't think I would have been good at it for as a professional needs to do it to do it well.

AUDREY AMREIN-BEARDSLEY
Fascinating.

LEE SHULMAN
I think that's one of my real limitations.

AUDREY AMREIN-BEARDSLEY
What is your favorite movie?

LEE SHULMAN
I mean long silences can be edited out, can't they? As I think reflectively. What is my favorite movie? This is an odd choice, and I would probably answer differently if you asked me the question at different times. It's a toss up (10:00) between *Groundhog Day* and, what was the movie with Will Ferrell and Emma Thompson where the Will Ferrell character realizes that he's actually, it's like *Groundhog Day*, and he keeps on doing the same thing day after day after day, and then he realizes that he's the character in a novel that a novelist with writer's block can't finish.

AUDREY AMREIN-BEARDSLEY
Oh, yes, I've seen it. I can't remember the name of it.

LEE SHULMAN

It's an amazing movie. But they both deal, in very funny ways, Will Ferrell and what's his name in *Groundhog Day*?

AUDREY AMREIN-BEARDSLEY

Bill Murray.

LEE SHULMAN

Bill Murray are among the funniest and most talented comedic actors of our generation, and they do it so well. But it's the notion, (11:00) I mean *Groundhog Day* is all about learning from experience or not learning from experience. And, you know the old line, some teachers have one year of experience 20 times, and some have 20 years of experience? Well *Groundhog Day* is about people who have one day of experience again and again and again, and they never really get better. But the Bill Murray character realizes the trap and does get smarter. I mean, there's something really neat about that. The Will Ferrell movie, again, so many people lead their lives as if they're characters in a play or a novel that somebody else has written. And you really become an agent in the world when you stop blaming everything else for who you are and what you're doing and begin forcing the novelist to get out of the way, so that you can write the story yourself. You know the Silicon Valley line, Allen Kay (12:00) I think said it, "we don't predict the future, we invent it." I think one of the things some of us have learned, is that we've got to stop trying to predict the future of education, or worse yet, just be bemoan it, and we've got to do what we can to rewrite it.

AUDREY AMREIN-BEARDSLEY

If you could have dinner with anybody, dead or alive, who would it be, and why?

LEE SHULMAN

It's got to be somebody who would go to the world's best possible deli with me. Berliner is a lot of fun to eat with because he eats without guilt, unless Ursula is there. Who else would be good to have that kind of meal with? Well I think somebody like Larry David or Seinfeld, so that you could eat that food and be laughing constantly. (13:00)

AUDREY AMREIN-BEARDSLEY

The entire time.

LEE SHULMAN

All the time

AUDREY AMREIN-BEARDSLEY

If Heaven exists, what would like to hear God say when you arrive at the Pearly Gates?

LEE SHULMAN

I've heard that question before. I suspect what I would hear would be, "I never expected to see you here." Well, I would hope that God would say, "Welcome, come in. In spite of the selectivity of our admissions process, it's not going to be as boring here as you think."

AUDREY AMREIN-BEARDSLEY

Judy, your wife, says that one of your greatest virtues is incorporated in the Yiddish word, *kvell*, which means taking pleasure in the accomplishments of others. You are wise, patient, a great listener, a mentor of graduate students and young faculty. Gary Fenstermacher notes this as well, that you promote the careers of younger and more junior scholars (14:00) so well. He knows of at least a dozen highly reputable scholars today who are where they are in part, perhaps in considerable part, because of your adopting them. What are your words of wisdom for graduate students and young faculty aspiring to be educational researchers, philosophers, theorists, and the like, like you?

LEE SHULMAN

Well, I think it starts with the recognition that whether they're your students or colleagues, the likelihood is that you are surrounded with people who are smarter than you are about really important stuff. Important stuff for the world of education and important stuff for you. I suppose is a little bit like someone, you know (15:00), when we were at Michigan State, we, we were there for every basketball game that Magic Johnson ever played as a on the home court, and the lovely thing about Magic Johnson as a metaphor is that he got greater, he failed more for his assists than for his baskets. He made lots of baskets. But the thing they always said about Magic is that he makes everybody around him better. I mean, that was their char. I think that was true. I would hope that I could be model and teach that to younger scholars. That to the extent that what you do can make other people around you, whether they're your students, colleagues, physically present, or virtual, better at what they're doing. In the long run, that's going to be best for you as well. One of the things I've tried to teach (16:00) is that, sometimes, you know, we get annoyed by the need to use footnotes and references, and my sense of footnotes and references, citations in effect, is that our entire field depends on the scholarship of others. Almost everything we do, we couldn't do if others hadn't done work before us or at the same time. You know, we can't give them residuals. We can't pay people for doing work that made what we do smarter. But we can write them a thank you note. And I think of citations of being able to, I look forward to citing Audrey Beardsley because that will be my way of saying thank you for work that you've done. In fact, I have cited you, Audrey, for some of your earlier work, and I'm sure I'll do it again (17:00) because our entire field depends on our giving away our knowledge free. That's what publication is all about. It's making your work public. And when you do that, you make it possible for others to do better work than you did by starting where you leave off. And when they cite your work, they're saying thank you. And that's what we do. The two worse sins we can commit as scholars are plagiarism because it's taking a gift and not saying thank you. Worse yet, it's taking a gift and pretending it was always yours to begin with. And that violates the norms of the community of scholars. Our research is community property. It belongs to everybody, and that's how we should view it. And the other great sin is fraud—when we publish work that we (18:00) know isn't true, and others because they trust us will take it seriously; and that ruins their work. It's like having a bad part in an airplane. So I think those are the values that I would want to communicate to young people, that that kind of generosity, courtesy, membership in a community of people who respect, admire, and value one another, is what makes our work possible.

AUDREY AMREIN-BEARDSLEY

Perfect. When asked to capture the nature and essence of Lee Shulman, Arthur noted that you are a gifted speaker and storyteller, you engage well with a large variety of people easily and effectively. Bob Floden noted that you have an incredible ability to give spellbinding talks on a range of topics, helping listeners see subtleties in material that they thought they knew. Suzanne said that you're generous, intellectual, and personal. Pat said that you are intellectually generous (19:00). Though few can keep up with your intellectual inventiveness, you have a gift for making others feel valued for their ideas. David called you a mensch, a man committed to his family and friends, to his institution, to the promotion of scholarship, to Jewish culture, to a good meal, good wine, a good laugh, and to the life. Gary said that while you are a superb facilitator of others careers, and a terrific broker of scholarly collaborations, you hold the highest degree of attainment possible in schmoozing. If there were a PhD in schmoozing, you would be the person to write the standards for it, and you would be its first recipient. Tom added that you are a beautiful human being, one who cares deeply about others, one who believes that everyone has the capacity to do good work with the right facilitation, and you are a supremely good facilitator in that realm. Gary agrees. Tom ended with this note, "I love Lee Shulman." (20:00) It sounds like a bumper sticker or a coffee mug in the making. Well there is no doubt that we all love Lee Shulman and hold you in highest regard, schmoozer and scholar alike, and we thank you so much for being you, everything you have done for us, the academy, future educationists, educational researchers, and of course, students in our schools. Thank you for being you, and thank you for being interviewed.

LEE SHULMAN

Thank you.