

JOHN TOMMASINI: Thank you, Janet. Just want to remind everyone, and Janet has done so, but please take time to stop by the vendors and the poster session. Without the vendors we couldn't do what we do for the cost that we do to bring you here. As she said, I think that it's a great opportunity for you to talk and ask questions to the folks at the poster session because any of them are doing a lot of things that many of them would like to do, and they have experience, and they know how to do it. I guess the other thing is it's going to be really hot today, so please dress casual. Take your neckties off and relax. It's going to be a long day and enjoy it.

Also, as I said to you yesterday, last night, as you listen to Dr. Reeves present, and thinking about the things that he's going to tell you, just think about the things that you can put together and take back with you, take back to your schools and your buildings, take back with you those kinds of things that you can implement that will really touch on children, because that's why we're here. So think about that, think about the things you can take back, and enjoy what Dr. Reeves has to tell you.

Dr. Reeves is a founder of the Leadership and Learning Center. He's worked with education, business, nonprofit and government organizations throughout the world. He's the author of more than 20 books, many articles on leadership, organizational effectiveness. He's twice been named Harvard University distinguished author series. Dr. Reeves is named the Brock International Laureate for his contributions to education. He's also received the Distinguished Service Award from the National Association of Secondary School Principals and the Parents Choice Award for his writing for children and parents.

And he's a strategic council member of the Partnership for the 21st Century Skills. I think that we're very fortunate to have a person like Dr. Reeves here with us today. And without further adieu, I'd like to introduce to you Dr. Douglas Reeves. Thank you.

DR. REEVES: Thanks so much and good morning. Am I turned on? Now, am I turned on? I guess you're going to be the judge of that between now and 11:15, won't you? Let me tell you what we can get done together. It's not easy to do interactive learning with a thousand people here plus several people at remote sites, but it's not impossible. And if we work together, we're going to make this an interactive session because you know and I know that one of the big lies of staff development is that all the wisdom resides on one side of the podium. It's not true. We'd be crazy not take advantage of all the all of the expertise in this room. So that is what intend to do between now and 11:15.

We'll have quite a few interactive activities. And what I'll ask to you do is just pay attention to the cues. You'll hear 30 seconds, and then ten, nine, eight, seven, and we'll all come back. Also, with respect to how you do the learning activities, I'm going to leave that to you, because I don't like it when people contrive my learning style. If you want to work as a table, that's great. You want to work with a dyad, with one other colleague, that's fine. If you want to work blissfully alone, because this may be the last five minutes of peace you get before school is out, then you just work alone. I want to make sure we meet your needs this morning.

And there's another way that I'm going to try and meet your needs as well. You will see that you have in your handouts a kind of buff colored sheet called "burning questions, challenges, success stories." Every time we have one of our interactive learning breaks, what I want to also invite you to do, if something's bugging you, is to write out a question, write out a challenge, write out a success story. And let me put a special note on the challenge part of that. This is a safe and appropriate way for you to ask questions and make challenges. Yeah, Doug, this is good in theory, but you haven't seen my, fill in the blank.

And we have parents represented in the room. Welcome your participation in this. We have administrators, superintendents, teachers, both general and special education. This is a good time to get tough issues on the floor. It doesn't mean that I've got all the answers. But what I want to make sure that I do throughout this morning's discussion is to not only have my agenda, but have our collective wisdom in this room.

And finally, here's the deal that I'll make with you. If you would be so kind to just bring those up during our little five-minute exercises, while you're working, I'll be working too, creating new content so that what we have by 11:15 is not only my research but our collective work. I'll post it on our website. You can download it, use it for free, because you may have colleagues back home who may find it at use.

Just to make sure that we're engaging not only people here, but also the people who are watching the video stream, a couple of notes. If you have a problem with your video, the protocol there is to take the nearest available picture of Harrison Ford and staple it right to your screen there. It won't do your computer good, but it will make me feel a whole lot better.

And what I want to do, get a pencil ready is give you a text number, so if you want to text in questions outside of Hershey, you will be able to do the same participation that people in this ballroom are doing. The text number is, you ready, remote people, 781-710-9633. Send an sms text to 781-710-9633. So just as people in this room will be writing out on the buff form questions and challenges, you'll be able to send those texts in and we'll all be together.

Just a couple of more preliminary things before we get underway. I want to say a special note of thanks to our conference organizers on two counts. Number one, that I am deeply honored to be following in the footsteps of Michael Fullen, with whom I share many philosophical research interests. And I think it is important when we organize conferences like this that there are consistent philosophical messages. And Michael's research and mine, not only for many years, but continuing into his new work this year, I think you'll find consistent.

Secondly, I want to add my endorsement to the poster sessions. Let me tell you why. I did a research study of 81 separate action research projects a few years ago asking, what's the greatest impact on teacher professional practice, thinking, of course, the answer would be inspirational speeches from Doug Reeves in hotel ballrooms. That's dead last, my friends. And graduate classes and undergraduate classes weren't faring so well.

You want to know, when we surveyed the more than 300 participants in 81 separate projects, number one impact on really changing teacher professional practice, direct modeling and observation of other teachers. So these poster sessions can be

some of the most powerful things you see at this conference, and I would really ask you to take time.

I've literally watched while people will see a poster session model something that I've been talking about for years with my research and millions of people, and they watch a poster session, and that's what pushes them over the edge, because it changes their view of reality. It can happen in my context. It can happen in my district with my kids. So please make sure you give your colleagues some time on that.

Well, let's get to work. Let's begin with this statement right here, because right now there are people in your state capital who may be a little confused on this point in the legislature. And I would like to you make sure that we get the balance right. A lot of people think that you are an expense source because you are a line item in the budget. I dissent. You are a revenue source. And I say that not because of rhetoric or because I'm trying to patronize you, but because the statistics are on my side.

You are a revenue source. Everything we do at this conference and what we are going to do in the next couple of hours is going to be focused on students success, and more particularly, whether you're working with early childhood education, special education, those difficult transitions in middle years, avoiding dropouts, wherever you are, stopping that dropout trajectory, you can stop one of those 35,000 Pennsylvania dropouts that we had last year. What does that save this state? \$9.1 billion just for one class, \$9.1 billion for one class, a half a billion dollars in medical care.

And let me just stop and explain what that's all about. Do we have any people here who have been secondary school counselors? You've seen it. The differences between people who drop out and people who stay in school are differences in health, in safety and high-risk behaviors. Every time you avoid somebody dropping out and you give them the opportunity to complete their education, you're saving uninsured medical costs, you're saving the state Medicaid costs. That saves money for people who don't like public education. You save money for everybody in this state.

And what about the male dropout rate? I just read the statistics last night and the way out here. How, you've seen the new reading scores that in elementary, middle, and high schools, males in Pennsylvania and 44 other states have consistently lower reading and literacy scores than do their female counterparts. If we could reduce the male dropout rate alone by 5%, it saves this state \$288 million. Now I want somebody to think about that the next time they tell you how expensive you are. You save money for the state, you don't cost money, and let's remind our colleagues of that on a regular basis.

Here's the four big ideas for today. First, I want to assert that it is not, it is not that we don't know what to do, it is that we are frazzled in too many directions, and as a result, do not implement what we know what to do, and therefore, we are going to talk about closing the implementation gap. Michael Fullen and I are converging on this idea, and I'm going to give you new unpublished evidence, literally things coming out this month and this year, on the value of that with more than 2,000 schools in a large international sample.

We'll talk about confronting some of the realities of how we deal with the fact there is political change and economic change, and insufficient resources, and yet our mission continues anyway. We're going to talk about some turnarounds that work with

new evidence both in high-poverty schools, high-minority schools, second-language schools, schools with significant special ed populations where the gap is closing.

And finally, I want to, with deep respect to my friends who are drinking the 21st century Kool-Aid, just stop for a second and make sure that before we jump on any bandwagons that we are very, very sure about challenging some of the presumptions that's behind them. And in that context, we are going to talk about some 16th century skills, some 18th century skills, some 20th century skills that I'm not quite ready to let go of.

And I'm also going to respectfully suggest that for all rhetoric about 21st century skills, you are not going to get them done with Ming Dynasty assessments which is pretty much what I'm noticing around people. I meant no offense, by the way, to the Ming Dynasty. They're wonderful people, they invented the multiple-choice test. I just want to suggest be better figure out how to do better than that.

So please take a look at the screen and you will see the definition of training. You've been there. Draw, pull, drag, haul, drag out, protract, spinout, spend, or pass time slowly or tediously, not today. Today's going to be interactive. And so think about how you're going to spend your time. Let me just also give you some, a heads-up, just so I can give you, create the maximum level of anxiety as we go all the way through here.

First of all, to reduce a little anxiety, I'm not going to make anybody speak into a microphone for a thousand people. I will wander around, and I'll be like your United Nations translator. You talk to me, I'll talk to the group, so we'll keep the energy very, very quick. I also, however, am going to need a couple of volunteers, and I want you to be thinking about who you are. If you are or have been a professional musician or are or have been a professional athlete, and by professional I mean you either got money for it or played at a collegiate level, musicians and athletes, I'm going to ask you to cooperate with me for an interview later on, probably at around 10:45 or so, so just be thinking that I'm going to ask you.

Questions, challenges, remember, and you've got to, I tried to save a tree or two by just having a one-page handout. But I'm not trying to hold out on you. If you want any of these research slides, they're yours. You can, you know, some people get cranky about copying slides. I do not. Copy them, use them, share them, don't sell them, okay, but otherwise, do anything you want. It's only fair. I mean, I saw Perry Zirkel's in the audience. I've learned so much from reading his stuff, and quoting it. You ought to use my stuff, and share it, and do it. And that goes to a lot of other scholars that we have here, that we ought to be a learning community and share that with.

Let's begin with the implementation gap. Here are some variables that I've been examining out of many, many, many variables that you see in school. And I just want to make a couple of notes before I show you the data on this. These are things that everybody in the world says that they do. But there is a big difference between when they do these things together and when they do them in isolation.

And the data that I'm about to show you, from three years of data, elementary and middle and high school, rural, suburban, and urban, 1.5 million students, I particularly parsed out where I saw clusters of effective practice. And what I did was to

compare deep implementation where people say they're doing the same thing, but in fact, the implementation was faulty.

Everybody does a needs assessment. You all have to do that whether it's special ed or general ed. Everybody has building plans. We have variable called inquiry that more appropriately should have been called efficacy. That's nothing more than inquiring, asking, hey, what do you think causes achievement? And when the answer from teachers and leaders is, well, come on, Doug, it's us, we cause it. It's teaching, curriculum, feedback, assessment, great, great leadership. Those are the things that cause achievement. In other words, when we attribute the causality to achievement to ourselves, that is a sense of efficacy, it becomes a self-fulfilling prophecy.

When, by contrast, we say, well, come on, what do you expect, these kids are rural, or they're urban, or they're unattended to at home, or they're fill in the blank here, nothing I can do here, I'm just a potted plant, that too becomes a self-fulfilling prophecy. So we've got good needs assessment, good efficacy. Prioritization, not people who write these 170-page plans, but people who can say that we've got six or fewer priorities, that's rare, friends. But when I find it, it's golden as you'll see for a moment.

I've watched individual school plans that claim to have 77 strategic priorities, district plans that had more than 240 taking what every board member slapped up against the wall and calling it strategic. There is an inverse relationship between the number of priorities you have and your ability to close the implementation gap. Specificity and measurability. You know, everybody claims to have smart goals. That's fine. I know, people love these acronyms, but I parsed out the s-m-a-r-t in those first two. Specificity, measurability have a disproportionate impact on everything that you do.

And, finally, monitoring. And I say with deep respect to the President and Secretary of Education, we do a heck of a job of monitoring nine-year-olds in this country. We do a heck of a job monitoring students. But monitoring in the context I'm about to show you means monitoring us. This is a fundamental ethical issue. There is not a child in the commonwealth of Pennsylvania who will be more accountable than the adults are. So we want to hold kids accountable, that's great. But I'm talking about, are we willing to leave this conference measuring what we do, describing what we do? I'm going to give you an opportunity in a minute to do just that.

So how good is it? Let's take a look at the data. These are data from three years, 2,000 schools, one-a-half-million students, 400 of them were Canadians, 1,600 U.S. And by the way, I did them separately originally, but the difference is not cultural, governance or language. The difference has to do with implementation. Let me explain what these axes represent.

I combined literally millions of cells of data into a few simple charts. The vertical axis here represents three-year gains in reading, math, writing, science, social studies at elementary and middle and high school. The vertical axis represents degree of implementation. On the right, these are people who not only said they did those things, monitoring, needs analysis, efficacy and so on, but upon individual examination, actually did them. The people in the middle went to the conference sang the song, did the dance, as did the people on the left, and they came back and not much happened. The difference is implementation.

But the first time I presented these data, somebody said, you know, Doug, that's fine, but you don't understand. A lot of these kids come to school with either great advantages or great disadvantages. We're all kind of props in a grand play. We don't really influence them if they already have lots of advantages. And, you know, I don't get mad about that stuff. That's just an interesting hypothesis. Let's test it. Let's look at only the high-performing schools, kids who came with lots of advantages, read from left to right, low implementation, medium implementation, high implementation.

Even if you're serving a very advantaged school, implementation matters. What about those of you serving very poor schools where kids come with lots of disadvantages? Even when I just isolated those schools, implementation matters. What about kids that have disadvantages? Even when I just isolated those schools, look at those in the left, the middle, the right. Of course, disadvantages matter. Anybody who claims that poverty does not matter has not spent a day in a high-poverty school. But what you do matters also, and it matters profoundly, because look at the people on the right who had deepest implementation. They had the greatest mitigation of the ills of demographic disadvantage.

Now just a few more charts before I get on with the main event of today. How important is deep implementation? Let's take an example that I'll bet everybody in this room says they're doing. We're doing PLCs. We're doing Professional Learning Communities. No look, you love Rick Dufour. I love Rick Dufour. He uses this chart, so this is no disrespect to Dufour. What it is saying, however, is this.

You've got people only the right who really do Professional Learning Communities. They look at the data. They have special ed and general ed meeting together. They look at individual classrooms and individual kids. They're able to have clear and convincing evidence that at their meetings they have changed instructional practice. Moreover, that the changes in instructional practice lead to gains and achievement. In fact, they have students using data. I've seen fabulous special ed and regular ed classes where the kids themselves, using stickers or other mechanisms, are watching their own data every day. That's a PLC.

And on the left, you have people who went to the same conference, and came back, and changed the label of their faculty meeting to Professional Learning Community. And I just want to respectfully push that we're real, real good at labels, and not so good at actual changes in practice. And that's what I want to have happen today.

The chart you saw before was math. This happens to be reading. And now what I want to do is do, is do our first activity where I turn theory into practice. Let me explain what I'm going to ask you to do in the next few minutes.

I'm going to ask you to take one, just one essential instructional initiative. Maybe it will be, maybe it will be something that you do with students. Maybe it will be something, if you're an administrator, that you're doing with adults where you're describing adult behavior. I defer totally to you. But what I want to do is describe a professional practice. And then I want you to envision three levels of it.

I want you to tell me, if you were coaching me as a new teacher coming to your building, what's proficient, professional practice, Doug. This is the right way to do inclusion in math, particularly in math problem solving at the fourth grade. Be really specific with me. Tell me what proficient is.

Secondly, describe what's close, but not really there yet. Because we sometimes create this binary effect of okay, not okay. Tell me not only what is proficient, but tell me what's not okay.

And then thirdly, this will be your greatest challenge, address me as a 35-year veteran who wants me to make my 36th year even better. Tell me what's way, way beyond proficient. Tell me what's exemplary practice. So think, either alone or with a colleague, about a very important instructional practice that's directly relevant to you, and then be ready to describe three levels of performance.

And then in about five or six minutes, I'll just ask a couple of you to tell me about it. Remember, you don't have to speak into a microphone. I'll repeat it for everybody else. Clear what I'm asking? See you back here in about six minutes.

Let me begin over at this side of the room, and who is willing to volunteer. Remember, I'll just ask you to tell me, and I'll tell everybody else. Somebody from over here who will tell me first what your essential strategy was, and then I'll ask you to tell me what proficient was.

Quick, eager volunteer. Yes. Outstanding. Thanks very much. And go ahead and tell us what it is and I'll just repeat it so everybody else can hear. [inaudible] Okay, they're going to focus on transition. And let's begin, you're coaching me. You're coaching me, remember. Tell me what proficient practice is. [inaudible] Okay, compliance, paperwork, so like avoiding trouble. That's a good start to proficiency. Keep going. [inaudible] Some assessment and job shadowing. [inaudible] And a school curriculum that determines the transition plan. Any other elements of proficient performance?

And if I were brand new in your school, that may be like all I want on my plate for one day. But nevertheless, even if I am brand new, I've got to perform at least at that level. So coach me what's not okay. Tell me what's not proficient. What is not proficient is [inaudible]. Absence of parent and student input, absence of plans. Okay. Now that's, I'm not going to let you off the hook, just more, because, remember, I want you to challenge me. I'm the 35-year veteran who is going to make my 36th year better.

So I've been doing proficiency pretty well. I got the paperwork. I talk to parents, I talk to parents. I do all the stuff that you just said. You know, I think my transitions are just fine. Tell me what would make it even better. What's exemplary performance? Having the student engaged, not just as a passive participant, but engaged. Tell me what else makes for exemplary transitions.

A student feels empowered to say what they do and do not want. Keep going. Measurements through the years, not just like, you know, through the weeks, but actually through the years of closing gaps. Keep going. Community education with the students being part of it, which is a great time for me to just remind us all that the reason I'm going to be talking about education generally is that what a lot of you call special ed, I think we ought to be calling it good ed, and that is the message that we ought to be giving to our communities. Hey, thank you. Thank you for being a good sport, and thank her for being first out of the box. Thanks very much.

Let's, somebody from the middle, please. Volunteer and tell me your professional practice. And I won't make you go through all three, but I'm just trying to illustrate a broader point. So who is willing to start with what the professional practice

is? Somebody in the middle here, please. I see a hand there. If this were a country auction, you just bought a sofa.

Okay. Tell us what the instructional practice is, please. Co-teaching, splendid. Just to make a point, I'm going to ask you to start with proficient. I'll go back to exemplary in a second, but tell me what proficient is, because I don't want to get overwhelmed here. Okay. Two teachers in the classroom, one's teaching and one's kind of present. No planning time. They're just thrown together in the blender. Insufficient content knowledge and background to really support general education. I'm sorry. Okay. There's a similar theme of not acceptable being insufficient planning time and insufficient coordination.

Let's skip now all the way to exemplary. Give me a model for what is even more than what's minimally required. What's exemplary practice? A professional dance, she said. I love your expression. Co-teaching, co-planning. Keep going, please. Multiple models, planning time, working together. Anything else? Reflective practice in a safe environment for kids to take risks. Let's add adults, safe for us to take risk as well. Grouping strategies, differentiated instruction.

Now, look, we all talk a good game about these things, but let me explain why I'm am going to ask just one more person from this side of the room to do this. And I want to note particularly for administrators two kind of subtle points here. Number one, we've probably had more specificity and clarity in the last five minutes than a lot of people get from a two-hour seminar. So if you're on the edge of being overly specific in describing professional practice or being over-general, let me just suggest, we got generality down pat.

What is missing is specific description of effective practice and error on the side of specificity. And secondly, notice how in literally six minutes we could get the beginning of a rubric done. You don't have to spend two hours doing this. You don't have to have a summer workshop to do this. We could take time in the middle of a department meeting and say, hey, this issue appears to be affecting us. We appear to be inconsistent. Let's stop for ten minutes right now and see if we can get the first draft of a rubric.

And you can get things done in meetings like this. And the reason I'm stressing that, administrators, is that teachers in this room get really cranky when they leave meetings with more to do. Imagine a meeting that we had left where we accomplished things and had fewer things on our to do list. That's going to help the morale of the faculty as well.

One final one. Somebody from over here, please. Let me have somebody from over here. Yes, please, ma'am. Differentiation, excellent. Student buy-in and some ownership. This is proficient we're describing. And? Classroom management. Pre-assessment of learning styles, interest in readiness. High cognitive demand tasks. Implemented with flexible grouping. And matched instructional activities to student profiles. Man, that sounds great. That's proficient. What's exemplary?

All of that plus more student self-direction and ownership. Student advocacy for what they need. By the way, one of the key survival skills that separates kids from those who drop out and those who do not. Keep going. Movement and evidence of flexibility, not a label that stays there. And? Reflection and redesign by the teacher

based on formative assessment. And student self-monitoring. This is really great. Thank our previous two speakers too, please.

Now the point is made. We can be much more specific in practice. And let me give you a little research vignette if you're still not pushed over the edge. It's a little experiment you can try at your next faculty meeting. And I've done this literally in 130 schools, thousands of faculty members.

It starts out innocently where somebody will say, well, you know, we've got a fill-in-the-blank here balanced literacy program, differentiated instruction program, and, you know, that's great. It's been our major instructional initiative. Wonderful. We've had seminars about it, outstanding, book studies, heck of a deal. Would everybody, I ask then, please get out a blank sheet of paper. And would you just write the response to the following question.

No names. Nobody's going to get put on the spot. I'd just like to ask a few questions like, what's differentiated instruction? Or how much time do you spend on your balanced literacy program every day? When I have done this in 130 schools, here's the essence of the data that I gathered.

The time allocated on what they all thought was a consistently implemented initiative varied from literally 30 or 45 minutes to 3 hours. Then I'd ask, well, what happens if that's not enough? How much extra time do the kids get? And the answers ranged from 0 to 120 minutes. And then I asked, well, okay, but if you're talking about something like differentiated instruction or balanced literacy, that's a pretty big concept. When you come to visit my classroom, because I really want to do well for you if you are my peer leader or administrator, what are the three most important things you are going to look for?

And in each case, I would stop counting at 30 three-most-important things. And I seriously want you to think about this because we've got schools and districts and state department people represented here. You know I mean no disrespect, but I want to tell you how this feels from a teacher's point of view.

When my peer leader down the hallway says, Doug, here's the three most important things you got to do. And my assistant principal walks in with a different three most important things to look for. And then somebody from the district and, oh, my gosh, the state department is visiting, and they've got a different three most, and they're all three good things. But when they are inconsistent, it leads us to feel whipsawed, and it makes people cynical. That's why you, even if you think you've got this all figured out, try the experiment of the blank sheet of paper and have people describe what they need. You can get a lot done with this technique.

Now let's talk about the nuts and bolts of closing the implementation gap. And it seems to me that the leadership essentials here are focus and feedback and flexibility. And by focus what I mean if, you know, people want to tie us down to a number, it feels sometimes like the students who say how many pages does this have to be. But I've decided after looking at enough numbers I'm willing to do that. I won't fight you over six versus seven, but I'll flat tell you when you've got 14 or 20 strategic priorities, you might as well have none, because you cannot simultaneously monitor on a frequent and effective basis more than about half a dozen key priorities. You decide what they are, but you got to be willing to focus.

Feedback. We know, and I'm going to give you evidence later on, that feedback is the most profoundly important instructional activities there is. But we have, and apparently are getting ready to continue, a disproportionate focus on feedback on once-a-year test scores. That is the academic equivalent of spanking your dog on New Year's day for everything it did on the carpet during the previous year. Doesn't do the dog any good, doesn't do the carpet any good. You don't feel better about it either.

We need formative feedback precisely as you suggested. That is clearly the state-of-the-art, and I'm going to give you the new best evidence on that. And we've got to have feedback, not just for kids. We've got to have feedback for us. These rubrics that you just started, that is one of the best ways. That's not an evaluation. That's not part of collective bargaining. That's not going to be some HR drill. That's just professionals working together to give us feedback saying, how can I make today better than yesterday and tomorrow better than today.

And flexibility. I loved what you said about risk-taking, but we've got to make sure that adults can take risk as well. You want to know the reason we don't, is that whenever I try to visit your classroom, oh, no, no, no. It's got to wait until it's perfect, which ensures that we will never take risks, never try great things, and I'll give you evidence before we're done that that is precisely what we must do.

The realities are this sounds great in theory, Doug, but don't you know we've got more and more student demands, we've got higher levels of poverty, second language and special education and more complexity within each one of those even as property values and resources are followed.

So I want to ask you to imagine this. Imagine that you're not going to start the year with much money or with any mandates. We're not going to have helpful assistance from Washington, D.C. or Harrisburg or anywhere else. I'm going to ask you to say, what would the right things be if you're doing them just because they're the right thing to do.

What of all the things you've been doing in the last several as instructional priorities, that you've worked so hard on, would you do even if it was not mandated, even if there was no special money to support it. It's just the right thing to do. Maybe it doesn't have a name, maybe it's just your own practice. Take about three or four minutes at your table, and be ready to tell me what would last even beyond money and a mandate. See you back here in about three.

I want to suggest to you that this is a really important conversation for you to have. And the reason it's such an important conversation is if you don't think that it's important to articulate what you do without money and mandates, then I would challenge you to make the following list, make the list of all the new initiatives that your system had, let's say in the last five years. And make a list of how many you deliberately terminated. That is, you stopped them because you decided to terminate them, and then make a list of how many you really still do today.

What you will find is the truth of the law of initiative fatigue. We pile program after program after program after program, I fear very much schools in program improvement wind up achieving precisely the opposite, because flooded with money, they buy one thing after another after another and give teachers the same amount of time they had.

The law of initiative fatigue says that as the number of initiatives grow, the amount of time and resources and emotional energy is fixed, and that gives you declining amounts of time, emotional energy, and resources for each one of those initiatives. Therefore, if we asked ourselves, what would we do just because it's the right thing to do, you want to know what you will see emerge, practices, not programs, practices, not programs.

It drives me crazy when somebody says, well, this program, you know, helped kids gain 20% in test scores. No, it didn't. Teachers did that. And programs are wonderful assets to us, but I want you to stop giving credit to programs for practices. That is why it's so essential that you define what those practices are.

Now let me offer a couple of ideas for you to consider as well as a methodology that I've used now for several thousand schools that might be useful to you for deciding where you're going to place your focus.

Number one, we've got to define the impact on student results. And let me warn you not to let the proficiency trap stop you there. When we define results, let's define it in an appropriate way. Tell me if this has happened to you. You've got a seventh grade student who comes to you reading on a third-grade level. Is that a wild improbability? Happens all the time.

So here they are, and heroic teachers in this room change the instructional method. Heroic administrators support them when they change the schedule. When they know that they've got a huge amount of ground to catch up, and by gosh, you do. You go from 3 to 4, 4.5, 5, 5.5, you got two-and-a-half years of gain in one year with this seventh grade student. And what does the report say? Did not meet seventh grade standards.

Now I understand that proficiency is the culling of the realm. But one of the things that I do have great hopes for, and I've spent a good deal of time on this in Washington, is for special ed kids specifically, and for all kids, we start measuring growth. So that if you've got somebody who makes a two-and-a-half-year gain, you have somebody who makes a two-and-a-half-year gain, you don't call him a failure. You say, how do we get more of that? That's the sort of thing that we have to do, and you won't if you use the wrong measurement for the wrong job.

So, yes, we're not afraid of measurement, but let's use the right tool. Conversely, let's make sure that we do not ignore students who came into that same seventh grade class and were reading on a ninth-grade level. And our incentive right now is to, fine, they're on auto-pilot, got other things to do, when we ought to be challenging them way beyond seeking growth for those students, seeking growth for students who are having academic difficulties, seeking growth for everybody.

Number two. There's got to be no hidden costs. And by that I mean we've got to know what the cost in terms of people and money is. We consistently underestimate the time it will take. Cost is not only in time and money. But I always ask people when they announce with breathless enthusiasm they're going to start something new, what will you stop doing? That's a question I'm going to ask you before 11:15. And if they can't tell me what will they stop doing, then I know there will be this death of a thousand cuts in both money and time for a number of other things. We just don't admit it.

And thirdly, we must specify what success looks like. Too often, we have an evaluation that comes in, oftentimes well designed and well intentioned, and then

people are at loggerheads because the evaluator had one definition of success and the implementers had something else. Let us discuss, with reason, upfront, openly using things like the rubrics that we just designed what it really looks like.

Now here's on process that I've used. You may want to take it into consideration at both the state, provincial, and even district level. It's called the implementation audit. And although the word audit sounds kind of scary, it really just asks three big questions. What are we doing? I would challenge you to do this. Go back and conduct an initiative inventory, and just see, at the Central Office, at the building, at the classroom level, how many instructional initiatives you've got going on.

I'm willing to bet you dinner it's more than we think, because there are things that one level will assume are going on, that may not. There are continuing initiatives, maybe from long ago that are continuing at the classroom that another level thought had been ceased. Find out what your inventory is.

Number two. Create implementation-storing rubrics. The exercise that you and I just did. The ones that I've done are a little bit more detailed on a four-point level so that we can distinguish, one, two, three, four. And we make that fourth level deliberately challenging, and we are explicit about what's not okay. So that if somebody is making the same claim, whether it's Professional Learning Communities or any one of dozens of initiatives. I looked at more than 600 so far. We've challenged them to define one, two, three, four.

Let me stop and explain why this is important even though I'm in close proximity to Washington, D.C., and maybe we've got people here who have participated in some of the What Works research of the last eight years. After \$200 million, do any of you know the answer to the questions, what works? Not much. And the reason is not because we have bad people doing the research. It's because we asked the wrong question. By federal design, what we did was to compare where a program existed and where it did not exist thinking that the variation is between implementation and no implementation. That was a bad assumption.

It turns out that the real variation is within the implementation of the same program. And you've seen it. Four people who claim to be doing the same thing, and they're wildly different between Levels One, Two, Three, and Four. And so by creating an implementation rubric, you focus on where the variation really is.

Then thirdly, you ask the big question. So what's the relationship between implementation impact and student results? And, not to get really statistically dry on you, but let me tell you the single finding that is almost consistent after looking at thousands of these, it's nonlinear. And let me just explain. In a linear world, you got a problem, you buy a program. There's Level One. And then, hey I got buy-in, 5% of my teachers are doing it. In fact, they like it. So with evangelical zeal, they convert another 5%, and now I'm at 10%, and the results get better.

And then I send out some mandates and send some people to some conferences. Now I'm at Level Three, and things get better. It's this beautiful feedback loop, but it's not the real world. The real world is not linear, it is nonlinear, which looks like this. You buy a program and nothing happens. And you convert a bunch of other folks, and nothing happens, and the administrative mandates and more conferences, it's a flat line until we get all the way over to Level Four. And then, as you saw earlier, there's some pretty darn good evidence that Level Four on Professional Learning

Communities, Level Four on coaching, Level Four on a lot of things that you're doing really does improve student results.

The problem is we rarely get to Level Four, particularly at the secondary schools that are the most fragmented institutions that we have. We do a lot of starting here, one, two, three. We rarely get to four. And the real problem happens as follows. We look at those frustrations, and you've had them. We worked harder. We got from one to two to three, and there's no results yet.

And instead of saying, let's get to Level Four, you want to know what we say? Well, shoot, that didn't work. Let's try something else. And we go back to Level One and two and, well, that's not working either, let's try something else. Hence, the law of initiative fatigue. And what I've been asking you this morning to think about is not to do new things, but to focus on fewer things with deeper levels of implementation.

Now let me address another hot-button issue that is much in the news right now. This will be in the May issue of *American School Board Journal*. And certainly hesitate to intrude into Perry Zirkel's field of law, I'm just related to lawyers, so I can play one on TV, I guess, I'm not a real one. But I don't even have to have a law degree to say that if we do unilateral abrogation of contracts, there's going to be a heap of money spent on lawyers that ought that ought to be spent on teachers.

And so if you want to do pay-performance, and that is what everybody is pledging to do as part of the next round of Race to the Top, let me just ask respectfully that we learn from the mistakes of the past. You don't have to make your own. California and many other places have been kind enough to provide us with a rich resource of mistakes that we can learn from.

So let's look at three of the big things that are out there right now. Rewarding for scores, sounds great. Who wouldn't want to have an incentive for student results? You want to know what happened? Unen Morano did this study at UC-San Diego. What really happened in the context of score rewards, it's not the kids who improved. The teachers migrate to the schools with higher scores. And so it creates the illusion of better teachers with higher scores, but that's because they moved to the schools that were already high.

How bad was it in Unen Morano's study? If you are minority and poor, you were six times less likely to have a subject-matter certified teacher than if you were anglo and wealthy. That's how bad it was. We created an incentive all right, but not an incentive for kids to improve.

Well, everybody now says, well, Doug, that's, we've got that problem licked. We won't just reward scores, we'll reward growth. The problem is in the details. If you reward growth in terms of percent proficient, you've probably been to conferences, and who do they focus on, the so-called bubble kids. I must say I find that deeply, deeply troubling. Because if the line that we're going for is here, you saw just a minute ago we ignore the person who makes enormous progress below that line. We ignore the person who makes progress above the line. And it's not as bad as all of that. It's worse.

I do a lot of research in high-poverty schools. And you know, I have not gotten these high-poverty kids to agree to be a stable population to serve the purposes of my research. They're just incredibly uncooperative like that. Tell me if your experience is that lower-income students have higher levels of transiency sometimes, job loss, family

separation, all manner of social dysfunction also cause transiency. Where we work, it's the, you know, the landlords have all these different incentives, so kids might be in four different schools to bounce around to get wherever the first month of free rent is.

Well, what does that mean for the growth model? Unfortunately, what that means is you may not have growth to compare. And there's only two things that happen, beware. One is we wind up not having any incentive to attend to transient students. The other is that we estimate the data.

Now, I'm very aware, and I've heard all of the statistical jargon of variance, covariance matrices that allow to us to estimate the data. And I have no doubt that data estimation can be done in good faith. But, administrators, I just want you to imagine that you're on the witness stand and a member of the Pennsylvania Bar is cross-examining you, and saying, well, you terminated my client because he or she did not have adequate growth in the classroom. Is that right? Yes, that's right.

And with regard to this student, you had the score in the spring, and wait a minute, there wasn't a score the previous spring. How did you determine that there was not adequate growth, and therefore terminated my client? And you say, I made it up. That may not be exactly how the conversation goes, but I assure you your defense attorney is not going to be very happy unless we have data to do that.

Third, credential rewards. It isn't working. And you know that, I know we've got people in here who work very, very hard on that. But beware. What we've got to reward is professional activity in the things that we do in the classroom, in our schools. So as you seek to have this pay-for-performance, please at least avoid some of the mistakes that I've seen other people make.

Teresa Amabile at the Harvard Business School has a wonderful article out, just published last month. And she asked, what really motivates us? And it is not, she asserts, money. Daniel Pink's brand new book, *Drive*, asked what really motivates us? It is not, he asserts, money. And I've, look, don't anybody leave and say I didn't think money was important for teachers. I know it is. But what we know is that it is not sufficient. Money alone is not the driver.

Both Pink and Professor Amabile are consistent with very good research. What's the best day at work? Not the day we got the raise, not the day we got public adulation, it is feedback on our progress. It's mastery. It's a degree of autonomy knowing that we did a good job. And, as Canadian researcher, Marie Charbonneau(?) expresses it, it's harmonious passion. I love how the Canadians speak. Harmonious passion.

What Professor Charbonneau says is there's passion, let's face it, is stressful. We know that. Passion is stressful. But there's harmonious passion and disharmonious passion. Disharmonious passion, hey, I can't influence the result and it's frankly not something I care very much about. It's just a source of stress. Harmonious passion has two characteristics. Number one, I care deeply about this. So let us define terms.

Nobody's going to have harmonious passion for a 2% gain in state math scores. They will have harmonious passion for saving the lives of children. And I know teachers who literally have started putting pictures of kids on their data walls, because they say that data has a face. They start describing, as I did earlier, in vivid human terms about the rewards of success and the risks and costs of failure, because it's lives we're talking

about, not data points. So harmonious passion number one, we care about what we're doing, people, not numbers.

And number two, we have the ability to influence the result. No matter how compelling the case is, if I feel helpless, I will not have the harmonious passion necessary to succeed.

Now there's a lot of evidence about stress anxiety and burnout. And before I overwhelm you with the evidence, I can probably skip this part because this is not a problem in Pennsylvania, is it? Well, let's begin with some context. It could be worse, please watch the following brief film. [film played]

Okay. So it could be worse, stress, anxiety, burnout. But there's an interesting set of studies on, that particularly focus on teachers, stress, anxiety, burnout, done in different jurisdictions, in different cultures. And the question is, what's the hypothesis about stress and burnout versus what the reality is. The hypothesis is, hey, that data analysis you talk about, that feedback, that looking at professional practice we've been talking about, don't do that. It's evaluative, it's stressful, it will push them right over the edge. You just, you know, close the door, go down here, and let's leave each other alone and try to survive this year. And I see people hunker down like that.

Well, it's an interesting hypothesis, but it's not where the evidence is. The consistent level of the emphasis is is that the antidote to stress, by a country mile, is efficacy, the sense that my work influences the result. And the more frequently we get efficacy, as Professor Amabile says, the better our level of stress, anxiety, burnout is. Don't bother having a team meeting if you don't say, here's where we started, here's where we are right now. It's the perfect experiment, same child, same family, same nutrition, same demography. The only difference between September and here is you.

And we've got to build efficacy, not with the rhetoric, not with inspirational speeches, but we build it with facts. And as your wise colleague suggested, not just week to week, but over the course years, because that is the evidence that we make a difference, and the evidence I think could not be overwhelmingly more clear.

Now whenever I talk about feedback, let me be clear to add, don't go home and say, well, now we'll launch a Stalinist five-year plan to redo our evaluation program. Look, that's a bargained-for issue, and I understand that. But you don't need a five-year plan to have feedback systems that are effective right now.

I think Bob Marzano is doing some of the most interesting work that I've seen in this area. And just imagine, if you will, three stacks of data. One stack of data is student achievement, not just state test scores, but formative data, classroom data, the things that you do all the time. That's one stack, achievement.

The second stack is Bob's observations, not just yes/no, but along a continuum of what are the most effective teaching practices. I want to respectfully suggest that people who are going through claiming they're doing Marzano, and they've got a list of nine things, and they walk in the classroom and they see them or they don't, are engaging in a practice that Bob Marzano would not endorse, does not endorse, has publicly repudiated. It's more complicated than that.

And what he's done is to, number one, say the effective teaching practice that use has to be in a context. It's not something that we just always use, especially when somebody's watching. And number two, that effective practice happens in a continuum, one, two, three, four, not binary, it's present or absent.

Imagine if you had those two stacks of data, then you could ask which specific teaching practices in my school, in my system, in my state, are most related to gains, not just gains generally, but gains for fifth grade English language, arts, special ed kids, eighth grade regular education kids, math, problem-solving. Let's decode what teaching strategies work in which context. That's a sort of analysis I don't see very many people doing.

And the third thing that we've got to acknowledge is the role of leaders in here. Yes, yes, yes, teachers are important. We all acknowledge that. But in a study that I just read yesterday on the plane here, more than 80% talked about the leadership in their building being one of the keys to their morale, their productivity, having the time and the resources that they need. We ignore leaders at our peril.

And therefore, we ought to be asking, in a third pile of data, what are the behaviors and characteristics of the leaders that are most related to our most effective teaching practice, which are most related to our best gains of specific student needs. Now that's the kind of feedback system that would be a learning system, not designed to rate and rank and sort, humiliate people, but designed to learn. That's the missing issue right now.

Now we say feedback is important, but before we point the finger at the state, because it's really easy to take potshots at Washington and the state, I want us to be reflective for a moment. Because if I were talking to a thousand students about feedback, you want to know what kind of feedback they're talking about? Thanks ever so much, professor, for all these statistical tables. But there's only one kind of feedback that my parents and I care about, and that is? That's what they look at.

So I'm just ask all of you to do something, and I'd like you do this alone, that we all have done many, many hundreds of times, probably thousands of times sometimes. And that's grade this kid. All I'm going to tell you is, these are real grades, from a real kid. And they're in the sequence one through five, six through ten on the right, he had ten assignments that he did through the course of the semester. MA stands for miss ago assignment, which you know, given this kid, because I happen to know who's involved, may have done it, just never found it in the toxic waste dump called his backpack, and so never turned it in.

I want you to use your system, whether it's an individualized system, whether it's something that you've developed collaboratively with your colleagues, whether it's a computerized system, to look at these data, and in three months, do what every Pennsylvania educator has got to do all the time, and that's calculate a final grade. I'll see you back here in about three minutes.

Thank you very much. Now by show of hands, using whatever your system happens to be, let's see how we did. Who in this room awarded this young person an F? Thank you very much for your honesty. If you have a computerized grading system, you have zeros for missing assignments, an F is exactly what you get. How many awarded a D? Thank you very much. How many a C? Thank you very much. How many a B? Thank you very much. How many an A? Thank you very much. And did we have some people who had grades other than A, B, C, D, and F? Sir, would you mind just shouting out what your alternative was? The gentleman awarded an incomplete.

Any other grades? There was just an article you might have read that was in *Principal Magazine* about the not-yet grade. Yes, sir? Yes, the grades are in order.

The student's clearly showing growth. But as we all know, if my computer uses the average to calculate the final grade, then I don't really care about growth. I want to make sure I'm punishing him in May for the sins of January. And there's nothing I can do about it because it's the, the computer makes those decisions.

Now can I just show you something? I've done this, oh, I beg your pardon, ma'am? You had an alternative? Yes? [inaudible] So here's a parent with a very wise suggestion, that the student has to choose the path of responsibility. And in fact, you have gotten the issue precisely where it belongs, which is, what is the consequence that works? I was just on the phone with a reporter yesterday. You have hit on the most controversial issue right now. We think it's No Child Left Behind. No, it isn't. It's grading! It's feedback. And you've run into it. Everybody who has had IEP meetings on the same issue has seen the same sort of controversy all over the place.

Let me just go into a slight digression. But first show that you you're not alone. In this room, we had A's, B's, C's, D's, and F's and alternative grading systems. So do more than 10,000 of your colleagues before I stopped counting. And let me also just note that the chart that you see in front of here represents people from all over the place, including places where my gracious host said, don't do this. Our country has a nationally calibrated grading system. And they also had like a military junta. And they, so, you know, say what you will about the Department of Education. At least they don't have like machine guns. I mean, come on.

Don't do this, we have a calibrated grading system, it's all going to be the same. And of course, I did it anyway, and they did the same thing that you did. And I was just in Australia a couple of weeks ago. And they said, our state has a policy on grading. Don't do that. And I did it anyway. And they, well, and even though they watched the hands go up, as you just did, with A, B, C, D, F, they said, well, that can't be right because our state has a policy.

May I just respectfully say to my friends at the state that issuing a policy may not be sufficient to actually change what happens in schools. In fact, back to our parent for a moment. Let me just ask the following question. And a lot of our teachers and leaders also are parents. Put your parent hat on for a moment. You know what it's like. Maybe some of you grew up, and your parents were teachers, too. And you bring home your report card. And they say, how did you get that grade? And the kid says, I don't know. They are telling you the truth. They don't.

Because the same kid with the same performance, and the same missing assignments, and the same absences, and the same everything, could have gotten an A, B, C, D, or F depending upon the idiosyncratic grading system. In fact, if you want to replicate this experiment, and I ask you to do so in your schools, set it up as follows. Ask your colleagues, ask a group of parents. Hey, what do you think the difference is between kids who get A's and B's and kids who get D's and F's?

And when you ask that question, you know what you hear. Well, it's parent involvement, it's worth ethic, it's homework completion, it's intelligence, it's background knowledge, it's organization. No, it isn't, because this kid had the same parental involvement, and the same background knowledge and the same intelligence, and the same organizational skills. The difference was our inconsistent feedback.

And I just want to respectfully suggest that as emotionally difficult as this is, this is, number one, really important, because if you get it right, it will reinforce everything

else that you do. And if you get it wrong, it undercuts the credibility from everything else that we do. No matter how good instruction and leadership and curriculum and other feedback is, if kids don't trust our grading systems, they don't understand them, or they seem wildly inconsistent, then we're not going to have the credibility that we need to pull this off.

The final thing, just by warning you of the level of emotionality on this, when, some of you know the name of Thomas Guskey, a very thoughtful and engaging researcher, who has written about these issues as well. Guskey and I wound up on the front page of *USA Today*. I called my mom, 87 years old. Mom, I'm on the front page of *USA Today*. It's not the *Rolling Stone*, but it's as close as I'm ever going to get, front page of *USA Today*. It was about this issue and Guskey was too.

And that pride lasted about 30 minutes until the e-mails started pouring in. That particular week, there were more than 430 blog posts, almost entirely negative. I especially liked the one that misspelled idiocy in referring to me. And the whole issue, and then I'll move on. The whole issue here is that people think that if we have a more rational grading system, very much as your colleague and parent suggested, of having the right consequence for missing work, not be the F or zero, but the consequence be doing the work, people think that's going easy on kids.

Let me recommend that you go home tonight and ask a 15-year-old near you what they think about that. You want to know what they tell me? Give me the zero. Because a zero isn't a punishment, it's a reward. A zero means they don't have to work anymore. And if we change the consequence from zeroes to F's to doing the work, and by the way, that is exactly the sort of relentlessness that special education teachers exemplify.

When a student doesn't do what the consequences, not an F or a zero, the consequence is doing the work. And it's not just special education. You see that in music, you see that in athletics, our best coaches do that. Our best music teachers do that. This relentless pursuit of work ethic and responsibility that doesn't have anything to do with F's and zeroes. We can get this better.

So part of what I want to do is suggest, as I have been all day, if we're going to have better implementation, we got to choose where to focus. And I've been suggesting some areas. This would be a good one, that might make your cut of the final things that you focus on. But before I ask you to focus, I've got make sure that we're willing to have our kids focus as well.

However, I have been told, by people who I'm quite sure have studied the matter, that kids' brains are different today. You know, they're digital natives. They're capable of doing so many things at the same time. What do they call that? Oh, yeah, yeah, yeah. In fact, this one guy said, it's my job, it's my job to help kids multi-task. That's the 21st century skill. That's an interesting hypothesis. Let's test it.

And that's exactly what Professor Clifford Nass at Stanford had done. Nass is in the communications department, not education, but he wrote what I thought was a brilliant study a few months ago that I'd like to share with you. Because Nass, kind of like me, can get intimidated by how good kids are with this stuff. Man, these 18-year-old Stanford students, and they can do this and they can do that. And what's the secret?

So what he did was to give his 18-year-old Stanford students a bunch of cognitive and problem-solving tasks. And he segregated them by the high multi-taskers and by the low multi-taskers. Here is what Professor Nass found. I love, I love his phrasing. They are suckers for irrelevancy. And this, my friends, applies to people in this room who have heard the following complaint. She gave me three hours of homework last night. No, you didn't. You gave 30 minutes of homework done as follows. A minute of homework, three minutes of *Facebook*, a minute of homework, answering five AM's, a minute of homework. That's not multi-tasking, that is switching back and forth in the least efficient way possible.

And the worst finding, Professor Nass said, is that the kids don't know that they're bad at it. Despite being confronted with evidence that multi-tasking diminishes performance, they think they're good at it, and persist at trying to do many things. You know what the real 21st Century skill is? It's focus. Focus on a challenge. Focus on an idea. Focus on a person. That's the 21st Century skill. That's what's being diminished right now. And if we really want to think about what our kids need to deal with the complexity ahead of them, it is not doing a thousand things frantically and superficially, but doing a few things well.

It is also important that you and I do the same thing, focusing at the organizational level. And I've been suggesting some things that you might want to consider for your final cut. Let me just offer some of these things for you to consider. The best collection of research extent right now, in my judgment, has been collected by New Zealander John Hattie. It's a meta-analysis of more than 800 meta-analyses. And I'll show you some of the results in a minute, but suffice it to say, everybody knows and loves Bob Marzano. And I respect his work too. That was a meta-analysis. Thirty-five years of assembled research. Friends, Hattie is Marzano on steroids.

This is 800 meta-analyses, 83 million students, and best of all, what I think it does is to bring some rationality to the debate that allows you and I to say, man, there's so many things to do. Where do we invest our time? And it's not a coincidence that for both Hattie and Marzano feedback, feedback for adults and feedback for students comes in number one.

Expectations. Since the day of Rosenthal and the Pygmalion research at Harvard in the mid-1960s, we've known that expectations are there. And now we know, in the 21st Century, that efficacy not only is essential for kids, but it's essential for our mental and emotional health as well.

I want to give credit to Richard Ingersoll of Penn who did a national study of teachers asking what is our number one source of dissatisfaction. And what Professor Ingersoll found is that it wasn't the usual suspects. It's not money, it's not bad, you know, administrators or quarrelsome parents or out-of-control kids. Number one complaint of teachers by a country mile, we don't have the time to do the job that we want to do well.

And leaders, I just want to be as clear as I can, if you leave this conference with lots of good ideas, and you don't complete that not-to-do list in a few minutes, then all we're going to do is have frustration instead of inspiration. Time, time, time, it's the number one thing I hear around the world from teachers.

Formative assessment. One of most powerful kinds of feedback that we can give, but let's echo James Popham here. It's not formative because the label says

formative. It's formative because you and I make it formative. Formative is only formative when teachers do it. And it doesn't even have to be store-bought. I know teachers at Harlem Village Academy that start every day, question number one. It's a silent room, the pencil and papers are out, little five items. It doesn't have to be psychometrically pure, just every day always getting feedback.

What I used to do with graduate students was to take them, and the dean hated this, but I did it anyway. That's probably why I write books now. I would take them to a basketball game. I wanted my assessment students to literally code what assessment looked like. And they would go to a basketball game, and they would code quantity of feedback, percentage of students receiving feedback, the frequency of it, the nature of it, and the result of it. Was it something, I didn't ever see a coach with a red pencil and a book sending notes nine weeks later to students in a basketball game. They always gave feedback, it was immediate, specific designed to improve performance right then.

And then I would have them do the same coding in a writing class, in a math class, in a science class. And I think you could do the same thing in a music class where you watch a teacher who doesn't conduct with a red pen, but who stops, gives feedback, and provides immediate improvement. That's formative assessment.

And finally, I'll nominate my own non-fiction writing, just because I think of all the research findings of the last decade, this is often overlooked. And it's just been recently reinforced in the last few months, thanks to a couple of professors at the University of Utah. My large study, about eight years ago, I guess, had one-and-a-half million kids, elementary, middle, and high school, and essentially said, man, there may not be a whole lot of silver bullets out there, but if do you more nonfiction writing, it helps science, it helps social studies, helps math, helps reading comprehension, helps every kid.

I've personally had kids with pretty significant reading disabilities and graphic disabilities who other people have thrown in the towel on start with bullet points, then to descriptions, then sentences. It's one of the most powerful things we can do. So that's the research from eight years ago.

Here's a brand new research, from the folks at Utah. I'm paraphrasing, of course, line one said, Doug was right. It didn't really say that, but it was kind of good. But what it seriously did say was that nonfiction writing is a key to improve performance academically as well as kids in technical and career education, as well as kids going directly in the world of work. Businesses spent \$3 billion on writing skills alone last year that we could have and should have taught earlier. It's great for kids and for the economy. That was line number one.

Line number two, I was less happy with. Paraphrased, nobody listens to Doug, because in a national sample of teachers they found that the greatest impact of nonfiction writing could have been in science and social studies classes at the secondary level. And where was nonfiction writing least likely to be taught, science and social studies at the secondary level.

Friends, it's yet one more example. We know what to do. We're not doing it. But the problem is, for every choice you make, there's a choice you don't make, for every thing that you choose to focus on, there's something that you'll leave out. And the partisans of what you leave out will be very angry with you. We call it in statistical terms type one and type two error. And good news for you, I have my four-hour lecture on the

subject with me, you know, probability of a hypothesis confirmed that it's not true, probability of failing to confirm a hypothesis that is true. You know, alpha and beta. I'm not detecting a lot of enthusiasm for the four-hour lecture. Would you consider the one-minute lecture on type one and type error?

Let's watch the one-minute lecture. [video played] Type one error. Type one error, you make a choice, you focus, you swing for the fences, and you get your nose bloodied. That's what happens when right now, before it's too late, we know a kid who is headed for failure and we intervene today. We change their schedule. We change instructional strategy. We amplify the quantity of formative assessment. We do everything we can to make those mid-course corrections. And instead of thanking us, they get mad, they whine, they complain, they bellyache all the way to the honor roll. I've seen it a hundred times.

For next year, we say, well, we're not going to do summer school the same way we've done it before. We're going to target summer school interventions and turn the whole model upside down to do credit recovery. And if they flunk the whole class because they missed the lab, let's do the blooming lab. If they flunk the whole class because they didn't finish the fourth grade project or eighth grade term paper, let's get those things done and stop making summer school this factory of boredom and rebellion. We can change it right now. And instead of being thanked, you'll have somebody tell you you're going easy.

We could change our grading practices that would have fewer failures, better discipline, more opportunities for this coming fall with fewer repeaters. And instead of thanking you, people will say, you're having grade inflation. Wait a minute. If they're working harder for those grades because they did the work, that's not grade inflation, that is work inflation. Performance inflation, not grade inflation. So you do the right thing, you get your nose bloodied. That's type one error.

Type two error. You wait, because you want to wait for buy-in. You want to wait for the research to be perfect. You want to wait for everybody to agree. You want to wait until we don't offend anybody. Where in our metaphor are you waiting? On the burning building, on the burning building.

There is no type three called perfection in educational decision-making. There's only type one, swing for the fences. Type two, wait. I suggest you choose boldly, because there are some things you learn today and throughout this conference that we can go back and implement now. The number one thing that people tell me at these conferences is I want to do it now, and yet, when I ask three months later, well, we didn't have buy-in, we didn't have everybody agree.

Let me give you the final piece of evidence that I think that is just really important on this before we move on. This is Hattie's evidence, read the book *Visible Learning*, because it's not just about what you and I do, it's about the relative impact of what you and I do with all the other things going on in the child's life. And I've just selected a few here. He also has things on family structure, he has things on intervention for learning disabilities, he has all manner of meta analyses of meta analyses and brings it all together in a neat synthesis.

Let's begin with the question, does socioeconomic factor matter? You bet it does. We have had this silly, unproductive debate in this country where one side says, hey, there's nothing we can do here until you fix poverty and housing and healthcare

and nutrition, nothing we do matters. I've heard this guy say to 4,000 California teachers, don't try to close the equity gap, it just makes teachers feel bad. And he got applause. But the other extreme in the debate is, well, buck it up, kid, poverty doesn't matter. As long as I can show you one school that works, then everybody can do it, and forget about housing, healthcare and family structure. That's absurd if you spend time with kids who have those challenges.

What's the reasoned middle ground? The reasoned middle ground is, does socioeconomic factors, family structure and so on matter when it comes to student achievement? Absolutely yes. How much does it matter? This shows about 50% of the standard deviation. How much is that? That is, that is more than a year of learning. It matters a lot. But without taking a breath you can say, and so does feedback, and so does formative assessment, and teacher clarity, and our relationships with our kids, and microteaching just as a few.

When you are thinking of how to focus, studying the relative impact of what we do, it changes the game, doesn't it? Because now we're not just saying formative assessment is the latest fad. Now we're saying formative assessment, by the way, read Larry Ainsworth's work on that also, formative assessment is not only important, it is more important than the impact of demographic characteristics of student achievement. That great feedback, feedback that is, as Marzano says, accurate, specific, timely, it's not only important, it's more important than those factors that we can't control. Nobody, including me, is saying poverty is irrelevant. I am saying that we must choose wisely with the best research available on how we mitigate the impacts of it.

Now let's get from the general to the specific. And what I want to do is recall that the first time I was in this state, it was probably 14 years ago, we were talking about some newly emerging schools, 90/90/90 schools. If any of you have heard of that research, number one, I wrote the doggone thing. And number two, it's free, so don't let anybody sell it to you. 90/90/90 is, remember what we said, practices not programs. It's not something you buy. It's something that you do. Documentation of schools that were 90% poverty, 90% minority, 90% meeting or exceeding standards.

Since that happened, we have continued over the years to study these, because here's the problem. Everybody's got a story of the shooting star, the flash in the pan, the dynamic teacher, heroic administrator, who burned themselves to cinder, and are not sustainable. What is much more persuasive, it seems me, is documenting success over time. Even as school boards change, even as superintendents and teachers and principals change, can you have a 50% staff turnover and perpetuate that kind of practice.

Let's see. In fact, particularly in the last two years, as the economy had declined, and some of these schools that were 90% poverty are now 100% poverty, used to be 90% minority are now 100% minority. Did they decline? That's not what I saw. In fact, here are the original practices, things that all of you can do. Laser-like focus what does that mean? When you walk into these schools, you literally see in the trophy case, not just athletic trophies, but you'll see essays and artwork and science displays in the trophy case. This is not a metaphor. I've seen it with my own eyes. The trophy case says what our culture values. And you see that displayed prominently.

Number two, they collaboratively score. If I ask, what is this grade, I wouldn't have people disagreeing A, B, C, D, F, because everybody has their own opinion, and

it's a matter of personal taste. They struggle daily and work collaboratively to define with clarity what proficiency means, because they know, as you and I know, children need and deserve consistency.

Number three, nonfiction writing. This was even before the big study, the first time I observed that the schools that were doing very well spent more time on description, persuasion, analysis, even starting at the elementary level. And it was not boring. It was exciting. They loved describing processes in nature, they love comparing and asking what's the same and what's different. You do your own experiment.

I went around to schools that were 90/90 and 10, high poverty, high minority, and virtually nobody achieving. And here's what I found. Lots of across sticks(?), lots of sentence fragments, lots of personal narrative, it's all about me, lots of fantasy, got those haikus down pat, yup, got the haikus. What was the ratio when I looked at content analyses of all the portfolios? Ninety to 1, nine zero to 1 of fantasy, poetry, fiction, personal narratives to description, persuasion, and comparison. Now friends, I love poetry. I'm not dissing that. I'm asking for balance, and a reasonable balance between the genres is what we need.

Fourth, and finally, and this gets exactly to the issue that our parent raised. What is the consequence for failure? I have never, ever seen a kid pick up a piece of paper that is already graded at an F or a zero, when that's the end of the line, read it and weep, and say, my word, my teacher has given me such highly specific individualized feedback on this assignment, I shall home forthwith and do it again. They don't do that. They take your carefully crafted feedback, and wad it up, and put it in the wastebasket. If we want your feedback to be respected, then the consequence for your feedback is not a grade. The consequence for your feedback is response, respect, work.

Carol Dweck's marvelous research at Stanford, along with Angela Duckworth's at Penn, says that work ethic, the response to feedback is one of the most powerful things that we give our kids. And it's that sense of relentlessness that special education exemplifies, but indeed the best of all teachers exemplify that we have.

Now those were the four findings in 90/90/90/. Last year, Harvard Ed Press published Karen Schanowitz' new book. It's being done. She and I had zero communication on this project. And you can look at her most recent 2009 book and see, almost to the syllable, the same findings.

Independent researchers, different times, different locations, coming to the same conclusion, that's the kind of consistency you want. Don't anybody leave here and say you're going to do something because Doug said say. I'm one pebble on a mountain of research. But when you start seeing the same thing by different folks in different places, operating independently and replicating each other, then I think you ought to take it to the bank.

And let's update to this year, 2010. You might have recalled that the President visited a particular city in Indiana, Elkhart, because it had the highest unemployment of any county in the United States. But what the press didn't tell you is the untold story. Well, the county unemployment was escalating. In fact, one young man said, the day I knew I was going to have get serious in school was when my grandmother was laid off at the factory, because I'm never going to have more seniority than she's got. And that's how bad things were in Elkhart.

But here's the untold story. They cut their ninth-grade failure rate in half. They had the lowest dropout rate since they have taken records. They're the most improved urban system in the state of Indiana. And, in addition to that, have more college credit earned, you'll see a new article coming out about earning community college credit, technical school credit, university credit, documented savings in the millions of dollars for these parents who were struggling. Kids thinking of themselves as college material all at a time when the showcase was how economically bad things are.

And what's the icing on the cake, because I think some of you may be saying, you know, that sounds, this multiple opportunities is good in theory, but what it means is multiple more amounts of work for me. So what's in it for you? How about the lowest discipline rate problem they have had, sixty percent reduction in suspensions. On 15 separate categories of discipline, from garden-variety disrespect to bad stuff with guns, down in every single category.

And just fast forward. What would this coming September be like with fewer of your time and resources devoted toward repetition, fewer of your time and resources devoted toward discipline of kids who are angry, and maybe even more of your time, as they found out, devoted to teaching the things you've always wanted to teach. Seventeen new electives that had never been offered, a four-fold increase in the music program, that's what awaits us when we reduce failure and get these things right.

And what about ELL populations? Here are the things that I'm hearing. My colleague, Bonnie Bishop, has done a marvelous job on this. And I've done a fair amount of this myself. I've taught in Africa and in China as well as in high non-English-speaking populations in the U.S. And just want to tell you there's no substitute for time. It is enraging to me when people will buy a new curriculum, buy new computers, buy new stuff, and then give you the same 90-minute literacy block that everybody has.

If a kid spent 10, 12, 15 years getting into a problem, they're not going to get out of it unless we invest the time that we need. We've got to say out loud, even in a new era of national standards, say it out loud, some standards are more important than others, and literacy has got to come first.

Writing, a lot of people, a lot of people reluctant to have our ELL kids write. My experience, friends, is exactly the opposite. That linear model of speak, then read, then write does not conform to my experience with our ELL kids. I've had kids 20 days in country who are not used to writing the alphabet or ABCs are slowly, and it's pretty inventive I admit sometimes, able to do interactive journals back and forth, from pictures to words to descriptions, the ability to ask questions in a written form that they would never ask aloud in class.

And let us not delay content. It is, it grieves me when I see the kids who are behind, whether it's a learning disability or an unfamiliarity with English, call music and art expendable when that's not where the evidence is. To be sure, what we need to do in science and social studies is embrace Ainsworth's clarion call power standards. Don't try to cover everything, they're not all equally important, but don't give up either. We can identify those standards that have endurance, that are most important for the next level. And we can make sure that the art and the music and the physical education that brings joy and health to our students is equally available to everybody.

And I did something that a lot of people who have been commenting on the new national standards haven't done. I read the darn things. All 400, and I want to assure

you, they are, they kept their promise to be focused, all 490 pages of them. And I want to be really fair about this, because I know there's differences of opinion in this room. And I'll just kind of call it as I see it.

The great gift of the new national ones is the English language arts ones are explicitly integrated into social studies and science. If nothing else is accomplished, that's a good move. The other great gift of those is that there's a clarion call for more nonfiction writing in every class, not dumping every literacy issue on the back of English teachers. I think that's a good move. There's plenty of room for improvement, but here is why I would give them the benefit of the doubt, and I know this is something of an unpopular thing to say.

The comparison of these new common core standards is not to perfection. The comparison is to the alternative. And what I've observed in the last eight years is that we're not always writing the curriculum. Testing companies are writing the curriculum. And I would much rather work collaboratively with colleagues, around the country and around the world, to make sure that you are the architects, you are the influencers of those. And I think, as more revised and reformed versions come out, you'll have the opportunity to do that.

Now I promised you that I would talk about 21st Century skills. I'm going to keep my promise, but I have to do so in a roundabout fashion. It's time for our next interactive exercise called *Choose your Century*. Now I have to say that I've done this in audiences of Lutheran and Catholic schools. And for the 16th Century, we had to make them sit on different sides of the rooms. So I know we have Lutherans and Catholics in this room. Be on your best behavior when we're talking about the Reformation and Counter Reformation.

I'm going to ask you, if you choose the 16th Century to say, wait a minute, man, the Guttenberg press was just invented, the '95 Theses had been posted. There's people who, for the first time, are wondering about defending the church in Rome or disagreeing with the church in Rome. What are the skills and knowledge I need to give to my students? The 16th Century skills.

Or advance to the 18th Century. Now we have monarchs being replaced by democracies. We have the emerging ideas of John Locke. We have people getting really good at sharpening guillotines in France. Or for any of these, add the Pennsylvania context, because there were some pretty interesting things happening that weren't there in 18th Century right here.

Or go to the 20th century. My grandfather's teaching license bears the date 1906. He literally had his scores on those. I can only imagine the number of lectures my grandfather must have listened to about 20th century skills. We're in a new generation, boy, and I want you to get ready to teach your students those.

So I'm going to get, I'm going to get to the 21st century. But what I want you to do in the next few minutes is to pick one of these centuries and be ready to tell me the most important skills teachers then, 16th or 18th or 20th, had to give to their students. Then we'll get to the 21st century. See you back here in about four minutes.

And who would volunteer a 16th century list for me? I'm teaching in the 16th century. Who would tell me what I need to know and do for my students? Any 16th century volunteers here? Anybody choose 16th over here? How about over here,

16th? Anybody choose 18th over here? 18th century? Tell us your 18th century skills, please.

Literacy, reading, writing, speaking, very important in the 18th century. That's the way a lot of things were communicated, but an emerging number of readers. And arithmetic. Would you say more particularly about math in the 18th century? What was going on then that made math so important? Yeah, navigation. It exploded. The beginning of calculus and trigonometry, and new ways to calculate latitude and longitude we never had before, a matter of life and death for kids. Anything else you want me to do for the 18th century?

Oh, interesting, a response to climate, architecture, some amazing things done there that endure today. Yeah, explain why, why was understanding of climate and environment important? Thank goodness, we don't have to worry about that anymore, right? Making changes. That was as true, if your students were native, nation kids who were still occupying land here at the 17th century, or if you were talking about coaching people in New York who were exploring the oceans, that sort of thing was important everywhere.

I haven't heard anything yet. I'm ready to give up. Who chose the 16th century? Anybody chose 16th in the middle here? If I don't hear a 16th century story, I'm going to inflict my Martin Luther story on you. Who chose 16th? I need some 16th century skills. Yes, please. And just ask, why would it be important for people to read the bible, not just a spiritual exercise. Why did that become a real critical skill in the 16th century? Yeah, so you didn't get killed. That's exactly right. It was a life skill. Because for the first time, public open discussion and debate, that we became very, very intense about that.

Keep going. What else in the 16th century? Not just to manage income, the growing trend of guilds that were coming out of the Middle Ages now to international commerce and different currencies and different sorts of specie. Anything else for 16th century? People needed to be able to write and communicate because, all of a sudden, we're governed more and more by contracts and by government documents. Anything else? And they needed a trade or a skill, some way of making a living, which also required all kinds of social connections, the ability to communicate.

Let's fast forward. When we think of the 20th century, a lot of us remember only the last part. I'm talking about the beginning part of the 20th century. I mean, we think web 2.0 is a big deal, how about human flight? Was that a fairly big deal? The assembly line, the migration from rural to urban areas. There were tremendous things happening at the beginning of the 20th century. When my grandfather taught, what were the skills that kids then needed to have? Let's have somebody over here, 20th century.

Yeah, certainly needed to have a trade. What else? It's the dawn of the 20th century. To give your, go ahead. Oh, man, problem-solving, risk-taking. Think of the immense complexity of what's ready to happen. And one thing that happened in all three of those centuries, we haven't mentioned, is, in addition to just like staying alive personally, what are some interpersonal skills that would have been great to have in the 16th, 18th, or 20th century before we started yet another cataclysmic war? Yeah, maybe some interpersonal skills, some collaborative skills, maybe some critical thinking skills.

In other words, nobody is given me anything that we're going to give up yet. So, and here's the point of the exercise. When somebody brings along to you, in addition to the common core curriculum a new set, oh, by the way, make sure you document that you're including 21st century skills. And the list that you'll always hear is creativity, and collaboration, and critical thinking, and communication. I just heard those from people in this room about the 16th, and the 18th, and the 20th century.

And I just want to respectfully suggest those are enduring skills over time. Be wary of somebody who says that a particular technology program, for example, is a way 21st century skill. It is no more than people who told me if I learned Fortran and Cobol, a reference that will elude about 90% of the people here, if you learn that, your future is secure. As helpful as telling Dustin Hoffman he needed to have plastics.

Now let me give you some additional challenges that I'd like you to think about, because, of course, of course, I believe in critical thinking. I'm writing a new book on assessing 21st century skills. And I will talk about creativity, and critical thinking, and I will talk about collaboration, and I will talk about the necessity for all of these things that we say are important, but I will press on this.

Because what do we call it in today's assessment environment, when students collaborate? We call it cheating. What do we call, when they say, no, I'm sorry, answer A, B, C, and D are not sufficient, and they write another answer that they creatively decided. And every year, we find instances, even on the SAT, where that's true. We call that a non-scoreable exam.

And if collaboration and creativity doesn't get them into trouble, then at least I know we can get communication done right, because all 50 states are going to have a writing test that will involve feedback with multiple submissions, right? In fact, what we do with our assessment regime is to talk a good game about the value of oral communication, technology communication, written communication. And to the extent a few states do it at all, it's never the way that you've been teaching it in the classroom, that involves the re-recursive process with respect for your feedback, but is one shot, and we're done. The sloppy work that was characteristic of the pre-Industrial Age, you're not going to do 21st century work with pre-Industrial sort of assessments.

And here are a few other things as long as I'm on a roll about some challenges here. In a recent study that Emory University did, and by the way, somebody asked, from our remote sites if they would access to all these citations, our website is full of free downloadable articles. Don't have to pay a nickel for them, pod casts, articles, full of research citations. And if there's anything that you want more details, you know that I'll happily help you do that, especially if you're working on some graduate issues.

Unverified self-confidence. Here's what this Emory study did, was to look at the ratio of student affirmation of their own work compared to what professors did, to whom they aspired to be evaluated the next year, it was a seven-to-one margin. Seven students thought that the work was proficient for every one the professor did. I would encourage some dialogue with the university folks represented here, not just collaborative scoring within a school, but collaborative scoring between an elementary and middle, a middle and a high school, a high school and area universities, to make sure that what we are calling proficient is not sucker-punching kids.

Daniel Willingham at Virginia has a splendid turn-of-phrase that he calls effortless brilliance. And not to hit too close to home, but this especially happens sometimes to

the children of teachers. It's happened in our home where, look, they've been read to since infancy, they know how to do school, they have parents who check backpacks, they always get A's, and then comes the day, bam, when it wasn't easy anymore. And it can be a crushing experience.

You look at Dan Willingham's work as well as that of Carol Dweck who wrote the wonderful book *Mindset*. She's the Stanford psychologist. And she thinks in brilliant terms about simple research. Kids who were given a set of math problems, kids of equally matched intelligence, and here was the only experimental treatment. Group One, I'm so proud of you, you're so smart. Group Two, I'm so proud of you, you worked so hard on that. Then what happened?

The next part of the experiment was giving them a more difficult set of problems including some that were not solvable. And they measured how many they got right, and how long they persisted on those that they couldn't solve. What happened to the group that was praised for being smart? Hey, man, you got it or you don't. If you don't get it immediately, they gave up. The group praised for working hard got more right, persisted longer. That's the real 21st century skill is work ethic and persistence.

And then the third part of the experiment. They let the kids choose, they let the kids choose. And you said choice was important. Let us be careful about how we construct choice. They could choose, medium, easy, difficult, or even challenging problems that may not be solvable. What did the kids who were praised, you're so smart, choose? The easiest problems, because that confirms them smart. If we want kids who are willing to take on real 21st century challenges, including those we don't know how to solve, we had best praise work ethic and not merely praise intelligence alone.

Another couple of research notes, F-style reading. I didn't know this. Maybe, probably some of you are a mile ahead of me on this. That there's a difference between how kids read text and how they are reading web pages. And they use these eye movement monitors on these kids to watch them when they read regular text, Z-reading, left to right and across, versus F-style, F is the top bar got their attention. By the time they were half way down a web page, they were getting half the page. By the time they were in the lower left hand corner, getting fragments of words. That has real implications for when we say, it's okay, there's no difference between researching on the web and researching on paper.

I know we're in a technological era. I know we want to save a tree. But what that suggests to us is that we might need to double check for comprehension. I mean, we might want to ask for summarization when someone says that they've looked at a website.

Hypotheses masquerading as fact. My favorite targets here are the self-proclaimed futurists. They're the same people, remember, who told you that by the year 2000, schools will be paperless. They're the ones who said with breathless enthusiasm, by the year 2000, we won't need to write anymore, we'll just be dictating into the end of pens. And here we are in 2010 still needing writing. I'm just tired of my kids using Wikipedia. So enough said on that. Cut and paste isn't research. Wikipedia is a hypothesis, it's not a source. And they can use it as long as they're willing to independently verify it well.

These are the things that really create 21st century skills. And if we're going to do that, my challenge to you is to what extent will your assessments include collaboration, creativity, critical thinking, and communication? Now to be fair, to be fair, and right after this video, I'm going to need my musicians and athletes, you know who you are, pro or college musician or an athlete, I know we've got at least one or two, I want you to start making your way up here.

But I, because I've said some critical things, I've promised to be fair. And in the interest of equal time, here's a message from Google. [video begins]

The following is brought to you by Coke Zero, real Coca-Cola taste and zero calories. Concerned about your privacy while using Google? The Internet giant says it understands. Google is now offering users a chance to opt out and live in privacy in a remote mountain village. *Tech Trends* reporter Jeff Tate has more.

Thanks, Theresa. They call it the Opt-Out Village, and it's just what you would expect from Google. If you want to keep your information private, all you have to do is move to our 22-acre Opt-Out Village and not speak to anyone from the outside world. It's very simple. Just go to the Google front page, click the Opt-Out button, and in minutes, a van will come to your house and pick you up. That same day, a team of Google privacy experts eliminates your home address guaranteeing it will no longer appear on Google local pages. And, after just two days in the back of a van, you're there.

In the village we can guarantee that there's no chance of Google reading your e-mails because there are no computers, and because they're also monitored and tracked by Google, there are no banks or hospitals. Residents will be expected to know how to grow food, suture wounds, and bury corpses by hand if they plan to opt-out. And Google has gone the extra mile to ensure that users who choose to opt out are given complete privacy in their new home.

A 30-foot tall 10-foot thick physical data security wall keeps all former Google users from leaving the village until they decide they want to start using Google again. The Opt-Out Village can't even be seen by Google satellites, because the entire town is enclosed with a large metal box with no openings.

Google says those wishing to opt back in to using Google after their time in the village will be allowed to do so if they agree to be branded with a whimsical G on their foreheads to label them doubters.

If you don't want to give us complete access to your most private thoughts and feelings, that's fine. You can just toil on the hinterlands and die young. And Carter says the Opt-Out Village is already getting rave reviews. One of the first village residents sent this letter praising the total privacy inside the village saying, all alone, no light, hard to breathe. Now that's one man whose data is secure. For the *Onion News Network*, I'm Jeff Tate. [end of video]

Now who says I don't give equal time. So, for our final exercise, I need somebody who is or has been a professional musician, professional athlete, and by that I mean you got money or you did it at a collegiate level. Who is going to be brave and move forward, musician or an athlete? Splendid. Thank you, you saved me. No, I need you too.

Ma'am, are you a musician or athlete? And what's your instrument? Viola. Splendid. And you played both solo and in an ensemble, at a university level or a

professional level? Thank you. And, ma'am, you're an athlete or a musician? Great. And do you do both chorus and solo work? Okay. And, sir, you're an athlete? Musician, another musician, I hit the jackpot. And what's your instrument? Drums and singing. In a group, right? And ma'am? And what's your sport? Shot put. Terrific.

And so, here's what I'm going to do. I want you to observe as I interview these people, and I'll let you follow along with my interview notes. And I'm just going to ask a few very quick questions. And then the question I want you to think about is these people are professionals. I'm going to ask them about professional practice. And then I want you to think about when we talk about the professional practice of teaching, the professional practice of leadership, what might we learn from them.

So, ma'am, let me begin with you, before shot put practice. May I ask you name, please? Denise. Before shot put practice, tell us what you did before you started the practice that day, before you've even suited up. Before you suit up? Yeah. You haven't even gone out into the field yet. Well, you're thinking about what you're about to do. And? You start to warm up. Okay? What else? You don't just pick up one of those great big things. Well, no, you warm up, you run, you do some push-ups, you talk to people, you have your coach, your setting your day with regards to your practice. So lots of planning for it? Yes.

Before, thank you, and let me ask your name? Ardith. Ardith, before you've even tuned the viola, tell me about before the practice, what do you do? I had a tremendous amount of content knowledge. Yeah, I mean, you can't perform until you've done this for an awful long time. Just the practice session. Just that one practice session? Before a practice, what else did you do? Before you tune up? Yeah.

You get the instrument out. Yeah. And I think the first thing I do is tune before I warm up, because I have to be in tune to warm up. Probably will have eaten well. I will have been physically and mentally fit so that I can do this. So let's just keep noticing some of these themes before they even started their professional practice, lots of physical, mental, planning things that have happened first.

Tell me your name, please. Emily. I'm going to ask you now about, now you're a pro, so you don't make mistakes in practice, do you? Okay. Tell me about your reaction to a mistake in practice. What happens, and how do you respond to it? Well, I'm pretty self-deprecating. So I tend to dwell on it. But, you know, you just take the mistake and you go back to it, and you learn from it, and you make sure not to make that mistake again.

And have you, has it ever happened that you've made the same mistake even more than once? Yes. And you found that to be such a soul-crushing experience, you quit music. No. Oh, no, so you still recovered from the mistakes? Yeah, and you improvise, you have to improvise. So if you make the mistake on stage, you have to go with it and improvise and pretend like, no, that wasn't a mistake. I was on key. But in practice. Yeah, you know. Okay.

Now, sir, let me ask your name. John. John, I'm going to ask you, you play the drums? Yes. And the stereotype that all of us have is, man, it's just like sticks and this stuff. How hard can it be? I mean, so you just do like the easy stuff, one? Pretty much. Is that it? Tell me about the most complicated thing you do on the drums. Playing the drums and singing at the same time is the most difficult thing. And what rhythmically? I

mean, defy all of our stereotypes about Ringo Starr. Tell us what our, I should explain. There used to be a group. It was named the Beatles.

Tell us about the most complex rhythms that you've had to deal with in the drum, and how you dealt, in practice, not on stage, in practice, with that difficulty and getting it right. Getting the four-limb independence though. That means each limb is doing something different. Each limb is doing something different? Yes. Sounds like teaching.

And let me just ask all of you just two final questions. You did a lot practice, you've been doing this for many years. And when did you start? Yeah, Emily, when did you start? Professionally? No, when did you start with your instrument? When did I start, oh, do you want to hear the story? No, just what age, what age? I would say, oh, my gosh, I don't know, very young. So maybe four or five? Six. So she's been doing this for at least ten years, maybe.

And when did you start playing the viola? I actually started a little later than a typical string player, which is why probably I play the viola, because I was this big, tall thing, and they needed it for the orchestra. So I had actually, I was just about to go into high school, which is very late, but worked very well. Okay, 13, 14, years old. And so she's also, at least ten years you've been doing this too.

And when did you start? July 1, 1976. Wow, that's when I was born. And when did you start track and field? When I was ten. When you were ten years old? And did you still do it in college? I did it in college. And so by the time you were in college, you didn't need to practice anymore, did you, because you're a pro, you're a veteran? There's no such thing as mastering.

So, thank, number one, thank our good sports for here, and let's see what we've learned. We know what professional practice is. Go back to your own schools, ask the musicians, ask the athletes, they know how hard professionals they work. They know how to embrace difficulty. They know that the more work, the better we get. And it doesn't stop. It doesn't stop at three years, at five years. There's no other profession that says, after 10 years or 15 years, we don't have to learn more. They continue to practice, to challenge, and to embrace the difficulty that we have.

If we want to get better as a profession, leaders and teachers, we've got to be willing to do what they do. To make mistakes, to make mistakes publicly, to be more vulnerable, to get the feedback, and most of all, to re-define what practice means, which is not being perfect, but to be willing to get feedback and have our last day of teaching be better than the next to last day.

I want to leave you with just a couple of final notes. First of all, you've been incredibly gracious in putting up with my kind of unorthodox teaching methods this morning. I take some risks. I hope you're willing to do the same.

Number two, I want to stress that this is the beginning of a conversation, not the end of one. So my e-mail and my telephone is on there for a reason. You have research questions, it doesn't mean I've got all the answers, but maybe somebody has asked them before and I would, I always learn, always learn from your correspondence.

And number three, and perhaps most importantly, I wish that there were other things that we could do, politically and financially, for teachers right now. But I'll tell you the one thing that I can do, and that all of you can do, is to say thanks, as a citizen, as a

parent, as a colleague, you have my deepest thanks. And I hope you'll share that with every one of your colleagues back home. Thanks for sharing your morning.