

**JANET SLOAND:** So it's my great pleasure to introduce Grant Wiggins. He is the president of Authentic Education in Hopewell, New Jersey. Dr. Wiggins and his Authentic Education colleagues consult with schools, districts, state and national education departments on a variety of reform matters. Authentic Education also organizes conferences, workshops, and develops print and web resources on key school reform issues. I think most of us know Dr. Wiggins as being the co-author with Jay McTighe of Understanding by Design, the award-winning and highly successful program and set of materials on curriculum design used all over Pennsylvania as well as the world, and also of Schooling by Design. His work has been supported by the Pew Charitable Trust, the Geraldine R. Dodge Foundation, and the National Science Foundation.

Over the past 25 years, Dr. Wiggins has worked on some of the most influential reform initiatives in the world, including Ted Sizer's Coalition of Essential Schools, the International Baccalaureate program, the Advanced Placement program, and state reforms in New Jersey, New York, and Delaware, as well national reforms in China, the Philippines, and Thailand. He is widely known for his work on assessment reform. Tonight, he's going to be talking to us about schooling by design, a blueprint for reform, and how to make schooling more coherent, engaging, and effective. Please join me in giving a Pennsylvania welcome and a very -- to a very esteemed national recognized individual, Dr. Grant Wiggins.

**GRANT WIGGINS:** Thank you all. Thank you all. It's a delight to be here, though it's kind of depressing that I'm all that's between you and the chocolate and dessert buffet at the end. That's kind of -- it's kind of more pressure than I can handle, but we'll make it go. So we have about 45 minutes together, talk a little bit about schooling by design as we call it. Please keep eating away.

Some of you may be aware that I've been working in the state all year. In fact, I was here yesterday in Harrisburg at the Department of Ed. There is a SAS Model District Project that I helped cook up last year. There are nine districts in it, as you are probably aware. And the goal, over a three-year process, is to develop more model practices and disseminate them through the SAS portal and other means. And we were, in fact, just meeting yesterday to talk about scaling up the project a little bit, and you'll hear more about that soon.

So some of what I'm going to say is related to that project, but it's really broader and deeper, an attempt to talk with you a little bit about what is schooling by design as opposed to schooling by dumb luck, which is how we think of it. And really what I'm asking you to ponder are these sort of thought experiment question on the screen. If you could wave your magic wand and be a school designer for a day, what would you design? Or to say this a slightly different way, I was really taken by John's message and I told him so after he spoke because John clearly gets deeply something that I believe is crucial for reform, is that you have to have a compelling vision that you never back away from. And John reiterated it, 100%. 100% is the vision. There are really only two educators in this profession of ours. There are the people that say 100% is the goal, or there are

other people who say, uh, we can't do it. No, I mean, you have to have a vision. And you have to go to sleep at night and say, what have I done to advance the vision?

What we've tried to do in schooling by design is give people a set of tools and a set of approaches that give you some sense of how we might answer this question and, more importantly, stay focused, keep our eye on the prize, not lose our way in the amazing mess and challenge of day-to-day school-keeping that distracts people from the mission. Now one of the basic principles of organizational design, and it's not just school, is you have to have a mission that you are clear about and you strongly believe in. Now every person in this room works in a school or a school district or both that has a mission statement, but most people don't give a darn about their mission statement. In fact, I've been in meetings, I'm not making this up, you may have been in them too, where I go and we're talking about mission statement, and people are arguing about what the mission statement -- no, no, that's the one we had four years ago and we changed all that when the new board came in! No, no, no, I know it says critical think -- no, it doesn't say critical thinking, I'm telling you.

Or -- at least they're fighting about it. Or nobody has a clue, it's just a plaque on the high school wall or it's on a web page that nobody ever visits. I can't say this strongly enough, and it's really the gist of my message, you got to have a mission. And you got to ask yourself every day, what have I done to advance mission? Otherwise, you're going to get whipsawed by parents, by legislators, by stupid administrators, by annoying colleagues, by kids and their daily issues. So this is pretty basic. You got to have a mission.

Well, then the second question: where does mission get lost? How did it come to be that people don't even know their district mission statement? How did that come to be? That's weird. Even if you know the mission statement, you know full well, as well as I do, maybe better, that we don't spend every week saying what did we do as a school this week to advance mission? So at the most very basic, I'm asking you to think of mission as true commitment to shared bottom-line worthy goals. I'm also going to say you need a personal mission because when you're designing some horrible quiz in February in the rain, you have to remember why we do all this. When you're reading papers when you wish you didn't have to, when you're dealing with a very difficult case with kids and their parents, perspective. Why are we doing this?

So there's two basic points to school reform done right. You got a mission and you got a gap analysis. And it doesn't matter whether we're talking about you as an individual teacher or the entire state of Pennsylvania or a large district. And so what we want to do is invest in, invent, ramp up practices and policies that make us take the long-term view and not lose sight of it.

Here's a simple example of how this works. You know whether we're talking about special ed or whether we're talking about general ed, whether we're talking about fourth grade or 12<sup>th</sup> grade, whether we're

talking about history or algebra, that most people design in a vacuum. So the fourth grade teacher designs, maybe with a few other fourth grade teachers, but we're just thinking about fourth grade. So we've got a language arts strand, we've got a social studies strand. Course can -- is meant to accompany both. Or if I'm a high school teacher, I'm designing a bio course and a chem course. On what basis? To accomplish what goal? What's the purpose of having a chemistry course? See, this is the thing that's crazy, and it's the key to understanding why so many courses are so boring and low-level. Why do we offer these courses? I.e. how does it return back to mission and principles about why we're in business?

So here's a simple thought experiment. When was the last time you or anyone else you know was forced to justify lesson plans, unit plans, course frameworks, course maps, in terms of mission? I'll wait. So simple thought experiment, and this is basically the logic of backward design applied to the whole enchilada. Suppose it says in the mission statement, as it does in many, we want students to be critical and creative thinkers and good problem-solvers. Great, then show me where in every course, especially at the high school, where we demand critical and creative thinking? We demand it. It's a hoop you have to jump through as a course designer and as a teacher because it's our mission. Is it any wonder that we don't have creative thinkers if creative thinking happens by accident instead of by design?

So this is the argument. In other words, it's an easy argument to make. And we have to therefore just say, okay, now that we've made it, now that we have a clear conception of what we should be doing, let's figure out, as John said, how are we going to go home and do more of it? How are we going to make sure that what we do is mission-focused and it's a -- mission is a point of reference? Well, that's interesting. One of the more interesting anecdotes from the SAS Model District work in the fall, nine districts, four of them are revising their mission statement. That's cool. That's cool. Oh, if we're going to take this seriously, then we better do that. Now let's add two layers because notice it says mission and principles. What is the point of the science program? We already know what the point of the special needs program is because John said it beautifully. What's the point of all the other programs? What's the point of algebra? Why is it in the curriculum? Yeah, why is it in the curriculum?

Now I like to pick on high school math a lot, and I have the benefit of having a pretty good math education. Four years in college, I know a lot of math, and I can go toe-to-toe with really annoying high school math teachers, and I love that challenge because they get away with murder, don't they? Raise your hand. How many of you hated high school math? Don't be shy. Look around the room, keep your hands up. How many of you hated high school college math? Oh, college makes it even better. Now you can't misunderstand me. You can't misunderstand this. I'm not criticizing high school math teachers. I'm not at all. I'm criticizing a program that has no justification. Marching through an algebra textbook has no justification. It can't pass this logic. Is it

any wonder that kids hate math and aren't good at it unless they're natively good at it and interested in it?

We did a student survey last year, 7,500 kids. Number one hated course? Mathematics, middle school and high school. Why did they hate it? Two reasons. No-brainers, both of them. Makes you feel stupid, not relevant. Duh. Now turn it around. Now turn it around. What if a design requirement linking back to mission is that school has to be interesting? It has to be interesting and it has to reflect how people learn, how people engage, and how people persist. What if you went to the high school math people and said, guys, when you hand me the course next time, you have to show me how it's likely to engage people and make them persist in learning and liking mathematics. Otherwise, it's not yet a course. It's not yet a course. It's just a list of topics.

So you see where we're going with this? It's really simple as logic. I'm not saying it's easy to do because you got to go to -- you got to go toe-to-toe with people and you got to look inside yourself and say, why the hell did I enter this profession? But the logic is clear. We're going to design backward from worthy mission. We're going to design backward from worthy mission of program. Courses have to show how they link. and then the key third one, it has to reflect how people actually learn.

I was at UNC Greensboro Thursday and Friday, working with design teams. It was way cool. We like to criticize colleges and I like to do it too, but this is actually way cool. The design teams are made up of, are you ready for this? Three or four professors, instructional design experts, software coders, and game designers. Is that cool or what? So you can't just say, well, we'll have 20 lectures in the course and they'll all be online. Not happening. They are designing way cool simulations as the capstone project of all these courses. That's what happens when you work in a world of design demands that reflect your goals.

Here's a little thought experiment. Harvard is the only college I know of -- there may be others, but Harvard's the only one I have firsthand knowledge of where there's no preregistration. You have two weeks to choose your courses by visiting them. Imagine if we had that. Nobody likes that idea, nobody. I get that because it would be chaos in terms of business as usual, but it surely has some logic to it. And it was actually -- I lived it as a graduate student at Harvard. It was way cool. There was a course at the ed school that I really wanted to take until I got there and then I didn't want to take it anymore. I just gave my son this advice. He's a sophomore at Ursinus and he was choosing his courses for this semester. I said, Ian, don't make the mistake you made last time, which was choosing the course description instead of choosing the teacher because he made terrible choices without knowing. Just went by the course description.

So we design backward from mission program goals and how people learn. Here's the magic word. The bottom-line, the bottom-line of all schooling, is transfer. The goal is not to get good at school. That's not the goal. The goal is to be able to use what you learned in school somewhere else. The key word is use something

that you learned in school somewhere else. That's what transfer means. Transfer means in terms of the literature and the research, can you, having learned something over here, without much prompting, do it over there? And we'll come back to that idea because it's key to understanding PSSA results. Whoa, it really is. Because the items that students have trouble with are items they've never seen before, but they should be able to transfer their learning. So transfer's the magic word.

When I was a soccer coach, true story, I was a varsity soccer coach a lot of my life. I was coaching and I was getting very frustrated about the failure of kids to transfer what they learned in the drills to the game. Common issue if you've coached. So one time we're playing a game middle of the season, I'm getting really frustrated, and the worst offender is my co-captain Liz, who is now a great educator in Massachusetts. Liz! I shouted out in the middle of the game. Remember, you can't call timeouts in soccer. It's terrible for coaches. You know, basketball coaches would die. They would. They'd have nothing left to do, just scream on the sidelines to no one in particular. So you can't call timeouts. You're stuck with what they learned. And the best thing to do is to just shut up and watch, but I couldn't help myself anymore, even though I didn't talk much, but it really got to me.

Liz! All the things we worked on all week! Give and go, two in one, and other technical stuff. Middle of the game, she's got the ball. It's like that old E.F. Hutton commercial. She puts her foot on top of the ball, freezes, the whole field freezes. She yells back at me, we would, but the other team isn't lining up the way we did the drills! Hit me like a ton of bricks. That's really the magic. That's what you're aiming for. Flexible, fluent, transfer, whether you're a special needs teacher, a varsity soccer coach, a parent. The gradual release of responsibility applied to everything. That's the goal.

Now if that's the goal, explain to me 12<sup>th</sup> grade in every high school in this state, in which we treat 12<sup>th</sup> graders worse than we treat third graders in a good third grade classroom in terms of independence and freedom of choice and movement. Ian is now alone in what was a double. Last year, he was alone at the end of the year at Ursinus in what was a triple. Gone. Three people gone, incapable of handling the independence required of college. This is huge. You talk about college and workplace readiness? I'm talking about can you take what you learned and use it without a teacher telling you what to do? So this has got to be one of our key goals. Bottom-line. So transfer, transfer with autonomy on a gradual-release model. Make sense?

Then explain to me course design. Where is it built into your course? No, we're just going to cover topics. Look at all the maps in the SAS portal. It's a march through topics. There's no deliberate plan for gradual release of responsibility in any map I've seen, and I've looked at dozens. This is the disconnect between daily action and choice and mission and long-term results, and it's everywhere in education, at all levels, in all schools, public and private. So this matters. We got to get this right. We got to get beyond thinking that school

is teach, test, hope for the best. Really, we got to get beyond it. It's time.

So we're designing backward from fluent, flexible, autonomous transfer. In other words, if you look at all the program goal statements, if you look at all the school mission statements, if you look at all the district mission statements, I think that this is a useful construct for understanding it all. Another way to say it is what can these people do?

The guy on the left, upper-left? That's Captain Sully, who landed the plane in the Hudson. That's a really interesting thought experiment. He hadn't rehearsed landing planes in the Hudson. Or if he did, I want to hear about it. In fact, he flies for US Air. US Air was heavily criticized in the '90s. This is a really cool story. And I fly US Air a lot because, you know, I fly a lot and I fly out of Philly. US Air was heavily criticized in the '90s after the crash in Charlotte. Why? Because of its yearly re-certification of pilots. The emergency situation was too predictable. It was the same one every year. Engine failure on takeoff. Transfer: fluent, flexible, efficient, effective performance. What do you do when things don't go right? Are your students prepared for that? Because that's life.

My older son is out in Hollywood finishing up at Musician's Institute trying to make it as, wait for it, a rock star. He is an interesting case. I mean, he was an honors student at the George School, great school in Newtown. Went to Knox College, dropped out and said, Dad, it's not for me. I want to be a musician. And you know, when his mother was resuscitated -- well, you know what's really interesting? He's finally got a working band together. It's not likely to be permanent. It's just fellow musicians. And they've played six gigs. And I won't bore you with the details, but it's pretty hysterical. Every single gig something horrible has gone wrong either before, during, or after. And I said, Justin, you have to be prepared for the unexpected. He said, well, how do you do that?

So I want to say then that, really, the goal that we're designing backward from goes something like this. The key phrase is in context. That's the Captain Sully story. That's the Justin in the band story. That's the soccer transfer story. To say it the other way around, students who freak out when the situation changes have not been well educated. And this really applies to the people in this room. You have an obligation with special needs students to not let them freak out when the conditions are not the way they expect. What does that imply? It implies a paradox. You have to give them situations that they don't expect, don't like, and make noise about. You have to, just as we had to practice in soccer, learning to adapt and not think that the drills would magically apply in the game. So using content, now and in the future, on their own, in context, effectively.

So let's link that now to the actual SAS Model District Project because, remember, I said before that there has to be mission and there have to be some principles. There has to be the equivalent of the

Constitution or the Bill of Rights. We have to sign off on some ideas, and we asked the SAS Model Districts to sign off on these three ideas for which there are rubrics. They were required to apply against these, they were required to self-assess against these, and we are looking for growth in these things over the course of the project. And given what I've said, you'll find absolutely nothing controversial or, you know, odd about these three principles. So this is just an extension, really, of what I said about mission statements.

Then they have to self-assess the core elements of schooling. This is the image that's in the book *Schooling by Design*, around which the project was based. And there are rubrics for each of these elements, that there has to be a house that is coherent, that's based on a blueprint in which the pieces fit. Imagine if you were doing a home renovation. Believe it or not, I'm in the eighth month of the second home renovation in six years. My wife likes this sort of stuff. It's -- we humor her, the cats and dogs. But it's been interesting the second time around because now I really understand it as a process, and it really is a powerful metaphor for school reform. And I want to say a little bit more about that a little later on.

But here's a little thought experiment that was -- that actually began to occur to me when we were writing the book. What if the subcontractors never spoke to one another, had no blueprint, that the people who were building the second floor didn't interact with the people on the first floor? That's school. Three levels, rooms in the levels. That's a hell of a way to run a railroad. It's doomed to fail. It's doomed to be inefficient and ineffective. And indeed, it is if we were honest about it.

So these parts have to align. You can see how this follows from what I said about mission. Let's stick with the phrase critical and creative thinking. Okay, critical and creative thinking is in the mission statement, so what do we know about how people learn critically and creatively? Let's do some action research, let's explore that. Okay, now we know a little bit more about our goal. Now let's embody it in curriculum, assessment, instruction, how we hire, how we supervise, how we evaluate. So we hire, supervise, and evaluate on critical and creative thinking because, remember, the point of school is not to get good at school. The point is to use content effectively, critically, and creatively because that's in our mission statement. So it's got to be embodied in everything we do.

Do a little thought experiment in your mind. Suppose you were going to hire new teachers. Eventually, there will be money back and we'll be able to do this. I'm pretty -- really, it's coming. I think we absolutely lose it at the most important moment of hiring. Got to make people teach, you got to make them respond to case studies, you got to get to see if they're on board with mission and how people learn and best practice. The resume is useless. Certification is useless. It's crazy that we hire not seeing people teach. There's no other profession that does -- it's not even professional. I don't know what the hell it is. It's crazy. It's crazy. So we got to get these things aligned.

Schooling by design gets the pieces aligned. Okay, but how do you do that? Well, you got to have a vision. Remember, when we started the home renovation, what did we have? Did we have just Denise saying, you know what, we need more light. Okay, bring in 20 guys. More light! No, you have a vision. What's it called? The blueprint. The blueprint. Think about that. With the help of an architect and many iterations, you have a vision that is so precise that even people who don't speak English and aren't particularly well-educated in the sense of conventional education, can build it to code and beyond. That's a miracle, but it's not because that's what a good architect helps you do. Imagine if we just said, no, no blueprint, more light. That's school reform.

So you got to have a blueprint. Here's actually one of 20 of the blueprints for our recent project. I'm stunned about this. I had a long talk with the electrician. He's a very interesting guy and he's very interested in what I do. In fact, he's a little too interested because I wish he'd get the lights done quicker, but that's another problem. But I said, how are you so knowledgeable about code? He said, oh, it's easy. We get re-certified every two years and, you know, it's a big tests. I said, really? He said, yeah, isn't there that in education? Don't they have to know the code? Now here's the analogy, and it's absolutely 100% perfect. Standards are building code. The goal of the renovation is not to meet code, but you got to meet code. That's what school reform is. That's what standards-based reform is. You got to meet code. You got to meet the standards, but that's not the goal. The goal is the mission, but code has to be embedded in curriculum, instruction, and assessment. And I really believe, I'm sorry to say this, I really believe that carpenters, plumbers, and electricians get this 10 times better than teachers because they live it. They know that the goal is not merely to meet code slavishly, but you have to meet code and you got to know code. They know it by heart. How many teachers know the standards by heart? See, this isn't good. This isn't good. We have to do something about this and it's in our control.

If you want change, you got to have a change process, and the change process should be manageable and straightforward. And I think this is as good as you're going to get in terms of simple and straightforward. You got a vision, you got a blueprint. Here's the reality. No light. Man, we got to have more light. Okay, here's the blueprint. All right, put the contractor on it. Cool. You know what? Still not enough light. It's interesting, a lot of changes take place even after the blueprint's done. Anybody who's done this knows. The contractor says, Steve, that can't be done. You know, you got the window and the pipe and the -- you want the pipe by its side by the window? That's not going to work. Back to the drawing board, literally back to drawing board. So there's an iterative process, but all the time we're keeping our eye on the prize, the mission of change. In this case, the wishes of the client. We don't just say, oh, sorry, that's the blueprint, so we're just going to build the blueprint. Pay us, goodbye. That doesn't work.

So school reform has to be like that. An iterative process based on a vision and reality and gap analysis in which every week, every month, we say, okay, where are we in terms of the blueprint? Well, first you got to

have a blueprint. You got to say, what's the school we want that doesn't yet exist because that's what a blueprint is. Some of you know Jim Collins' book, Good to Great. It's a great book. And this is one of his more famous quotes in the book and it really applies to schools big-time: I have found that many educators do not want to face the brutal facts of current reality. I already alluded to a basic one. We don't want to face the fact that students are bored a good deal of the time needlessly. We don't want to face it. We make excuses. Uh, kids, you have to work. That works. No, that's a brutal fact. Second brutal fact: we've got kids who graduate who are not autonomous independent people, regular ed or special ed. 100%, that's the goal, that's the vision. So that's the challenge. You got to have a vision, you got to have a gap analysis, but you got to have will and courage. You got believe that it's worth facing up to the reality instead of let's just keep on keeping on. We're not going to do that.

Here's an interesting gap analysis that I've been performing for the SAS districts. I spent a lot of time this fall developing an audit of local assessments. And I was just in one of the districts that shall go nameless for the moment to do the audit with them. It was way cool. They ran it. It was a lot of fun. Same thing happened that always happens whether you use Bloom's Taxonomy, Webb's Depths of Knowledge, our audit process. Local assessments are not very good. They're neither rigorous enough, interesting enough, inspiring enough for kids and teachers, but you got to do the audit to see it.

So if you want reform, you got to do some basic things. You got to have a vision and you got to face up to misalignment problems. Really, that's all it is really. But Grant, there's so little time. Yep, you're right. But the drivers ed teacher doesn't make the mistake that we make. No, actually the drivers ed teacher has it lucky because the drivers ed teacher is crystal clear on the desired outcome. The kid has to be able to drive with the rest of us without killing themselves or us. Right? So in fact it's the other way around. Since time is so limited, how will I get them to be able to drive? It actually is a very salutary exercise. Instead of saying, oh, we need more time, we don't have enough time -- no, no, other way around. Given the precious time you have, how you -- are you achieving your goals? That's the way you have to see it.

So anybody who keeps saying we don't have enough -- whoever has enough time? Do people in any other profession say, oh, we got all the time in the world, no problem. Come to us, we'll lend you some. So we build this blueprint because we really won't have the impetus and the focus and the clarity of direction until we determine what we want to be seeing. What do I want to see in classrooms? I mean, really, that's simple. I want to see kids who are having some fun learning. And it's real learning, it's not busywork, it's not just cutesy activities that have no payoff. That's what I want to see. That's what you want to see. They're really learning. They're engaged and they're learning. Not just engaged, engaged in learning. I want to see that. All right, what does it look like? What would I see? What would I hear? What would the kids be doing? What would the

teacher be doing? That's how you build a blueprint. Then you do the gap analysis. Well, why aren't we seeing that? Well, for a million reasons, but now we have a direction. Got to have the blueprint.

So once we have the blueprint and once we begin to have a sense of what the reality is, we can build problem statements. Why is so much stuff boring? No really, why? Why is it boring? Why will the same kid play video games for four hours straight and you can't even get them to come to dinner? This is actually an important thing that's happened in our lifetime. Video games have caused most learning theory to fly out the window. Oh, people won't accept failure. Yes, they do. Jane McGonigal makes this point in her great book *Reality is Broken* about video games. They tolerate failure 80% of the time. So why do they persist? You got to have an answer because they do.

So we got to have some problem statements. Why are some people bored? Why are kids ineffective? Why are kids not independent? Why are they not transferring their learning? Now we do the action research. Wait a minute. They're transferring their learning over here, but not over here. What's the difference? Now you're doing action research, now you're doing PLCs, and now you're doing fun professional work.

The job of leadership, Drucker said beautifully, is to get beyond platitudes and to turn the organization's mission statement into specifics. So we talked about this earlier. You got to have clarity about what mission implies and we got to get as specific as we can. We don't want to focus on the inputs. We want to focus on the outputs. It was so cool when John said, we're not service providers. We're causers of results. That's the distinction I'm making. You're not a service provider. You're a causer of results related to autonomy and efficacy. That's the only measure, not how many services you provide.

Well, here's an interesting distinction. What is means and what is end? So service providing is a means, it's not an end. You're not in the service providing business. That's a means to achieve the end. The end is 100% graduation woven into larger society. Did you know that Pennsylvania has stated the mission of schools? I think it's the only state that's done this. One of the superintendents in the SAS Model District Project pointed this out to me. I was stunned. There it is, right in code: prepare students for adult life, attending to their intellectual and developmental needs and challenging them to achieve at the highest level possible. That's cool. That's a mission statement. What happens if we color code it with means and ends? Always a useful exercise. Yellow is the end, orange is the means. You want to do the same thing with your mission statement and goal statements. You'll see there's a lot of means language that isn't helpful. It's not about what we're going to provide. It's not what we're going to do as adults. It's what are the outcomes that we're committed to causing. And that was John's point.

Here's an example from a district. I just chose it fairly at random. I was -- I went on the website, I went

on the Internet earlier in the year and came upon it. And I -- you know, I thought it was a good example, so I'll throw it out. So it's just here. I'm not saying it's the best. I'm not saying it's bad. It's just here it is. Here's one from north Allegany. So same thing, see if you can predict the color coding. What's the means? What's the end?

Fair amount of means. The end is right there in the middle. Remember the logic of before? Okay, if this is the mission, then where in curriculum design, lesson planning, unit planning are we working on the things in yellow? That's what follows from what we've been saying. That's what you would see in north Allegany if they were honoring their vision. And then you have to ask yourself, well, what does that look like? So you have to begin to envision it. What's the difference between a lifelong learner and a non-lifelong learner? Really, what is the difference? It's a funny phrase. What, they stopped learning when they're 21 and a half? Well, I mean, some people don't, you know, I mean, so it's true.

So we can generalize. And we won't dwell on this tonight, but you can read about it in the handout. So here's a way of thinking about how to critique your mission statement to make sure that we're getting off on the right foot, and that's indeed why four of the nine districts said, we got to -- now that we've seen this, we quickly see there's a gap between an ideal mission statement and our current mission statement. And so they're off and running.

I actually think that the biggest bang for the buck in the short-term is to force those math teacher that I was critiquing and everyone else to really come up with clear goals for their programs. So what is the point of algebra, seriously? Serious, I want it as a statement, and I want to know how your courses relate to the goal statement. The interesting thing is I've done this exercise with algebra teachers and they always see there's a total disconnect between their goal statement and their procedures because all they do is march through a textbook. And marching through a textbook isn't going to cause critical and creative problem solvers, which is what they always say is the goal statement.

None of this is news. Ralph Tyler said this over 60 years ago. I hope many of you have read Tyler's little book, *The Principles of Curriculum* in graduate school? It's a great book, 1949. It's basically his lectures at University of Chicago. Tyler was a brilliant guy, you know. He helped invent NAEP. He was Dewey's right-hand guy in the eight-year study in the '30s. Brilliant guy. I had the privilege of seeing him when he was 90, still vital life force. I mean, look at this statement, and I've highlighted the key thing in yellow. This is why I said earlier that most curriculum maps are totally useless. Tyler said this more forcefully in 1936. If school is about changing the learner, then you can't design courses backward from content. You have to design backward from the changes in the learner using content. There it is. So again, there's something so clear about this once you begin to wrap your head around it, and that's good because then we begin to really feel the disconnect between the vision and the reality and that's the key to reform. It has to be that obvious. We can't just throw up our hands

and say, oh, this is so damn difficult. We can't do anything. No, get clear on the goals and then it becomes obvious what you should do.

So here's the logic of backward design applied to the problem. So instead of designing maps around stuff, we design maps around the use of stuff with increasing transfer and autonomy. And these prompts are designed to make it happen. Two mission statements, one from an outstanding public school, one from an outstanding private school. Scarsdale fancies itself one of the great school districts in America, and they certainly always show up on top lists. You may not be aware that Scarsdale thinks so much of itself that they abolished Advanced Placement courses as being inconsistent with their mission. That's cool. Yes, you don't want to be the principal and the assistant superintendent and the superintendent justifying that to the Scarsdale parents every week. Neither do I, but it's cool. It shows what happens when you have a mission, really.

And the English department did a really nice job on this issue of increasing autonomy. So given their mission statement, we can now expect in doing walkthroughs in Scarsdale, and I've done it, it's true, that there's more socratic seminar in the upper grades than in the lower grades, more opportunities for independent meaning-making, in preparing you for college.

Exeter is one of the premier prep schools in America. Ten years ago, the math faculty at Exeter said, what the hell are we doing? This isn't math. Math is problem-solving. That's all they do. There's no more textbooks. There's problem sets that the teachers develop in teams over the summer. They've been doing this for a decade. Their students go to the top colleges in the world. Don't tell me it can't be done. It's exactly the opposite. When you do something with integrity that's consistent with the highest aspirations and principles, people beat a path to your door. It can be done when you're clear on the mission. I was up at Exeter last month. It was way cool. I was really impressed, yeah. It was cool, but you know what? A lot of the kids don't like it and if you go to their website, you can read some statements by kids about how hard it was to adjust to it because nothing in their prior math experience prepared them for it.

And then, finally, what's your personal mission statement? Why do you teach this stuff? I had a fourth grade teacher in a workshop not too long ago say, I think when it comes down to it, my mission is I want kids to love to read and to be good at it. Cool. How are you going to honor it? She said, well, I know how to make them read. I don't know how to make them love to read, so I got to think about that. That's right. In fact, if you think about it, a lot of what we do in upper-level courses makes you not like to read. And the student surveys show that. We have a huge boy reading problem and it grows every year and it's reflected in the literacy assessment data and it's reflected in the student survey data. Boys are hating English with more and more of a passion and my own two sons fall into the camp. That's just a brutal fact.

What are we doing about it? Well, look at the best literacy practices in special needs situations and in primary classes and you begin to get an answer. Why are we requiring boring, stupid novels? Why are we doing that? Not if you want people to love to read and to be good at it. That just doesn't make sense. So there's school reform. I've solved all your problems right before dessert. Have a clear purpose, one that you go to bed every night saying, that's why I do this. And then you get up the next day and you say, damn, there's work to be done, but it's okay because now you're not stressed in the same way anymore because you're clear on what you're trying to do. And every day is just another way of accomplishing what you're trying to do, what you were set out on this earth to do. So let's go have some dessert, let's think a little bit at the dessert table about why we're in this business, and let's keep our eye on the prize. Thank you very much.