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Dr. Willard Daggett is a national expert on education curricula. In a conversation with students at the Iowa High School Summit, the educator and the students addressed the emerging challenges of the global economy. This is Intelligent Talk Television.

Daggett: as I've been in every state in this country, I've had a chance to look at education. But maybe more importantly, I've had the opportunity to be in more than 20 nations around the globe looking at schools. And every time I return to America, I'm very thankful for my five children and seven grandchildren that my family lives in America. I am convinced that young people in America today have the finest education opportunities of any nation in the globe. Now, having said that, I want to also add, however, that while we have the finest education system, we do not have the highest standards in the world. And that might seem like a conflicting statement to you that how can you have the best system if you don't have the highest standards. I believe we have the best system because we address simultaneously in this country both academic excellence, but also equity. In a lot of ways equity and excellence are in conflict. I can get you to excellence in a hurry if you let me pick and choose who I'm going to educate. But that does not provide long-term the greatest opportunity for, number one, all students, but clearly not the greatest opportunity for a nation. I believe it's that dual commitment to excellence and equity that make America the finest education institutions in the world. Having been in all 50 states, I'll make an observation, and I'm making it here in Iowa, but this tape is going to be shared beyond Iowa, so I'm not making it simply for Iowa. I'm making it as a national statement. I know of no state in the country that has a better education system than the state of Iowa. You have great schools and you should really take advantage of the wonderful educational standards and opportunities this state provides. But while I say that, the fact that you have great schools and America has the best schools in the world, the reality of it is you as students today face a greater skill gap than any group of students in recent memory. Let me explain what I mean by skill gap. The skills you need to be successful in the world beyond school and the skills you're leaving your schools with is greater today than any time in recent memory. And it's greater not because our schools are failing. Our schools are not failing. That's a myth. A lot of the media, a lot of political leaders in this country have almost made a sport out of beating up on public education and giving this perception that our schools are failing. I don't believe they're failing. I believe our schools are getting better. They're getting better every passing year, but the problem is while our schools improve, that improvement is very slow. It's very gradual in comparison to the world outside of school, that's changing four to five times faster than the rate of change inside of school. So each year the school is getting a little better. You're educated. Your standards are higher than any group of kids have ever had, and yet the skills you will need are far greater than any generation in the past had. And that skill gap is being pushed by three dynamics. Number one is technology. If we go back and think about technology, most people think of information technology. To the students in the audience, how many of you have ever seen a picture of something that looks like this computer? Any of you ever seen a picture of it, or any of you ever seen a computer that looked like this? Okay. Well, when I was your age, that was our computers. And everything in that picture represents a total of eight megabytes of capacity. Do any of the students here own an iPod? Okay, good. The first iPods are now two years old. And those first iPods, when they came out two years ago, cost more than they do today. The first iPods cost \$400 and they had a total of 4 gigabytes of

capacity. If you don't know the relationship between a megabyte and a gigabyte is that the iPods that first came out two years ago had 528 times the capacity of everything we see in this picture -- 528 times the capacity. If you bought an iPod in 2004, you probably bought it too soon. You should have waited till 2005 because the price dropped down to \$239 to \$279 from \$400, and the capacity went up to 20 gigabytes, or 2,000 the capacity of everything you see in that picture. If you bought it in 2005, you bought it too early, you should have waited till this year. The new iPod out for Christmas, 80 gigabytes, or 8,000 times the capacity of everything you see in that picture. Now, I show you this example because what all of you as students clearly need to understand is that technology every passing year gets cheaper. Technology will never be as expensive as it is today, and that is a statement we have been able to make for decades. It keeps getting cheaper. It keeps having greater capacity. Every passing year the computer has more capacity than it had in the past. And the third thing is it keeps getting smaller. And this issue of size is going to be profoundly changed because of something called nano technology. Have any of the students in the room ever heard of nano technology? N-a-n-o. I don't totally understand it. What I do know is that with the laws of physics, we hit the wall in terms of making computer chips smaller, so about two years ago they began this process called nano technology, and they're building computer chips from an atom up. They're building computer chips today that are 1/1,000 the width of a human hair, and one of those computer chips in the immediate future is all you will need to run your computers. What I want to show you is how that's going to impact before this year's high school freshmen graduate from high school. I want to show you what will happen to the technology. It will no longer look like iPods. Clearly it's not going to look like the old mainframe computers. See, we went from mainframes to PCs to PDAs. By the way, anybody in the room have a -- own a PDA or a Blackberry or anything like that? Can you get e-mail on those? Can you get an e-mail on a Blackberry? Anybody know? Sure. Can you get total Internet access? Yeah. You can take them anywhere. They're inexpensive total capacity. Those iPods, those PDAs, those Blackberries will not last for more than another couple years. They're all on their way out. They're about to be replaced. Just like that mainframe computer was replaced, they're about to be replaced by this integration of information tech and nano tech with something called spot technology. Spot technology stands for smart personal object technology. It was first introduced by Bill Gates on January 6, earlier this year, at the Consumer Electronics Conference. It's a new product that Microsoft released with three other companies. These are the three companies. Anyone of the students in the room want to guess what the new product is simply by looking at the name of the companies? What do you think? Yeah, it's a watch. It's a watch. Now, what is it? It's a computer in a watch. An entire computer in a watch. We went from the mainframes to the PCs to those little handhelds to a watch. Now, if you're my age, here's the problem. Can anybody guess at my age what the problem would be with a total computer screen being the face of the watch? What do you think? I can't see it, yeah. I can't see it. The other problem is can you imagine what the keyboard must look like on this thing? How in the world could you use it? So what do we have? What you've got it an integrated projection system and an integrated keyboard. Now, I'm going to show it to you. I'm willing to bet that before this year's freshmen graduate from high school, the next slide I'm going to show you will be used by virtually every student in our schools. The present keyboards that you have are about to disappear. They're being replaced by this product, and it's on the new palm. What is it? You push a button on the side of the new PDA and the new palm and a keyboard appears right in front of you just as if it's really there. It projects it like this projector does, but the projector is so small, it's inside the watch. Whatever is on the face of the watch as well as the keyboard is projected in front of you. A separate keyboard as you now know it will no

longer exist in this country over the next three or four years. They're going away. Separate monitors as we now know them, they're all going away. Why? Because you don't need them. You push a button and you see them. Now, it is not just a keyboard. But before I go any further, how many in the room can type, not well but at all? Okay, I want you to try something with me. I want you to put your fingers on the keyboard just as if there's a keyboard right in front of you, and I want you to hit the letter "A." first of all, if you're going to have your fingers on a keyboard, feet on the floor, back straight up. Remember the old typing lessons? Okay, hit the letter "a." what finger are you using for "A"? What hand? Pinky? On the left hand. "A, E", what hand? Home row or long reach? I'm going to give the vowels three times in a row, and I want you to think about what you do with them. Are you ready? A, E, I, O, U. A, E, I, O, U. A, E, I, O, U. Smallest fingers, longer reaches. Those most common used letters in the English alphabet. Does that make any sense to any of you? Wouldn't we want to have A, E, I, O, U on the home row? A, E, I, O, U? No, you go A, E, I, O, U. Anybody in the room want to guess why we might do that? How many -- have any of you ever seen an old manual typewriter? Okay. What do you think would happen when you typed real fast on an old manual typewriter? It got stuck because the technology, the metal arms, couldn't keep up with people's fingers. So 1917, the year my father was born, 89 years ago, this country changed the keyboard. A, E, I, O, U used to be on the home row, but people typed too fast so we moved it to the small fingers, longest reaches. We created the slowest keyboard that scientifically could be made because the technology couldn't keep up with people. Is it any longer a problem in 2006 that technology can't keep up with people? So why in the world are we using the same keyboard? Think about it. You may want to ask me later. It doesn't make any sense that we're doing that. Oh, by the way, how many of you spent last summer working in the fields? Okay. How many did not? So why did we have to close school for the entire summer? Why do we have summers off? Ponder it. It doesn't make sense. How many of you have little brothers and sisters? Is ten weeks in the summer an awful long time for them to be off? Do they begin to lose lots of their things that they learned, and is it tough for your moms and dads to figure out what to do with them all summer long? So why do we have the summer off? Why do we do so many of the things in our schools that we do? Because our schools were designed for a time that literally has passed us by. Schools were designed for the needs of the 19th and the 20th century, but this is the 21st century. When we begin to look at this technology, this is a problem.... Or an opportunity. Let me take you further. I can push another button on a product, and whatever is on the face of it will be projected onto the wall. That's why you're not going to have the keyboard or the monitor. And I've got both at once. Old computers that you now use are soon to be a thing of the past. How many of your schools have a policy that when you take any type of national test or any of the tests that you have to take, how many of them say you cannot bring your cell phones and PDAs or Blackberries in with you? Okay. Why not? Why won't they let you bring them in? Because you could cheat; you're absolutely right. How might you cheat? You could text message. How many in the room text message? Okay. You could text message. What else could you do? Get on the Internet, find the answer. So we say you can't have any of that technology. Let me ask you, do we have any freshmen in the audience? Okay, by the time these five freshmen are seniors, this is all commonplace. Where are the seniors in the audience? Seniors, therefore, do you think we should say to the freshmen by the time they are seniors not only you can no longer bring cell phones and PDAs, you're not going to be able to bring watches, because isn't it the exact same reason? Let me take it further, it's not just watches. Guess where else they're going to be putting this? In lapel pins, in necklaces, in earrings, in bracelets. So do you think we should say no jewelry? Or let me take you further. Levi Strauss says within three years they will have it as an

option in buttons of clothes. [LAUGHTER] Think about what that means. [LAUGHTER] See, what we teach in school and how we teach in school and the rules we have, all well intended. But I raise a real tough question with you. What is literacy in the 21st century? What's the definition of an educated person? Simply what you have in your head? The knowledge you can carry around and have in your head and not share with anybody else? Or is it the ability to access information and use information and evaluate information and interact with others? That is the challenge your state department of education, your school superintendents, your principals, your teachers are beginning to really roll up their sleeves in this state and say, you know what, the definition of an educated person is beginning to change. The education system I need to put in place in response to this world that is changing so fast pushed by technology has got to change. Let me give you just one more example. Can I take a device the size of a PDA and put a word in English and have it translate into another language? Sure. Do you want to speed it up by a few thousand times, nano technology, and make it smaller? Well, IBM has created something called the IBM goggles. I call them the IBM glasses. Put them on, pick up a manuscript written in Spanish and you see it in English. What will that do to foreign language curriculums in your schools? Or pick up something written in Chinese and see it in English. The world is fundamentally changing. Information tech has changed; bio tech, which I don't have time to get into this morning with you, is changing even more dramatically, which will profoundly impact agriculture in ways we hardly can comprehend. The issue is the world of 2010 doesn't look very much like the world of the year 2000 and clearly doesn't look like the world of 1950. But our schools, what are they based upon? The past... Or the future? You put all three of these together, those three fields of bio tech, nano tech, and information tech began to merge around the year 2000. By year 2006 that merger had become great. By the year 2010, most people say we won't even use the words information tech, bio tech, and nano tech. We will simply use the word technology because they are totally integrated together. The real challenge we have is what do you need to know to be able to do any of this. In other nations, nations like China are saying, well, to graduate from high school, kids are a minimum, to understand just bio tech, they're going to have to have biochemistry. How many of you have biochemistry? Not biology or chemistry, biochemistry. How many have biochemistry integrated with physics? Because that's where all three meet. You're going to need to have skills no group of students ever needed to have in the past to be successful in the 21st century. And the technology isn't going away. Capacity is going up. The applications are going up. The size is getting smaller. And then it's pushed by a second issue, and the issue is globalization. When we say globalization, you would have to have been asleep in this country in the last six months not to have seen the cover of nearly every major magazine in the country. India and China have awoken. They have become major, major players in the global economy. When we think of the global economy, most people think of 9/11. How many know what I mean when I say 9/11 instantly? It is the day that changed this nation forever. A profound change on the country. But in some ways 9/11, in terms of the education you all need to have, may actually have been not even as important as 11/9. Any student in the room know what happened on November 9, 1989? Something fell. The Berlin Wall fell. And when the Berlin Wall fell, suddenly Eastern Europe and the old Soviet Union became eligible to participate head to head against you. But they didn't have a clue to know how to do it. I had the chance in the '90s several times to be in Russia. They had no clue. They were given the opportunity to participate, but they had no transportation systems, monetary systems, banking systems, communication systems in place, and their nations fell into utter chaos. When I look at Russia and Slovakia and Romania and Hungary and Bulgaria, nations I was in, they were in chaos. But six years after that in 1995, which is now eleven years ago, which to you seems like a

long time ago -- to the adults sitting in the back seem present recent. Eleven years ago China made a decision and China said they will remain communistic, but while remaining communistic, they will become part of the free enterprise system. If you don't think China in eleven years has turned this around, go visit a Wal-Mart, where the majority of products today sold in a Wal-Mart are now made in China. Two years after that, India has a national election. They throw out of office a socialistic leaning government, vote into office a democratic seeking free-enterprise loving government. 1997, nine years later, if you don't think they have changed, the next time you have a problem with a computer and you go to a help line, ask the person you're talking to where they are. There's an 80-percent chance they are in India. Now, India, China, old Soviet Union, and Eastern Europe, anybody know how many people we're talking about? 3.6 billion, 60 percent of the world's population. 3.6 billion, not million, billion. In just seventeen years since the day the year many of the seniors in this room were born, literally in your lifetime since the day you were born, 60 percent of the world's population have become direct economic competitors of America. I've been in many of those nations. You know what young people in those nations want to be? They want to be what America already has. They want to have a standard of living, a quality of life at least of fraction of which we now have. And then one other thing happened. How many in the room use e-mail? Do we have anybody in the room that's never used an e-mail? Do you know that you cannot have used an e-mail when you were born in this room? You couldn't use e-mail. It didn't exist. See, e-mail didn't come into place until a guy by the name of Timothy Berners-Lee, a Frenchman, created the World Wide Web, not the Internet. The Internet has been around since World War II, but in 1991 the Frenchman Timothy Berners-Lee created the World Wide Web. When he created the World Wide Web, it made e-mail possible, it made web sites possible, it made Google possible. It enabled us not only to send information via e-mail to anybody, any time, anyplace in the world in your lifetime, the other thing it enabled us to do is to send work to worker anywhere in the world if the work is information based. And so what do we begin to see? Well, Microsoft made a decision in April. Last April Microsoft made a decision to move their research and development center out of America to India. Of the fortune 500 firms in this country, they are the 125th firm to do so in the last 36 months. See, I've got workers over there willing to work for a fraction of what we're willing to work for in America. This year there will be more income tax forms completed for Americans in India than in America because, see, that's digitized information. I can send it worldwide instantaneous. And accountants in India make a fraction of what an accountant in America makes. If you know of anyone that's had an MRI or a cat scan or an X-Ray in this country in the last six months, probability is it was not read in America. Eighty percent of cat scans and MRIs are now read overnight in India, and X-Rays are now being read in Australia and China, all sent digitally instantaneous. Reuters just laid off their entire research division. That's the news service. They've moved it to India. In Great Britain, in their senior year in high school, you take something called an A-level exam, and how well you do on these exams determine whether you will or will not get into a British university. They are essay exams. The British government has now moved the grading of the a-level exams to India. They can get it done for a fraction of the cost. And so what's the issue? I can move work to worker anywhere in world. And young people in other nations say they'd like to have a fraction of what we have as Americans and they're willing to do whatever they have to do to get there. So children in China are going to school 255 days a year, 8 1/2 hours a day except on Saturday, when it's only 5 1/2. We go to school 180 days a year and during the week, 5 1/2 hours a day. By the time they're in twelfth grade, they have had twice the total -- twice the amount of instruction as an American student has had now. And they will work for a fraction of what we will work for. What's the

implication in the global economy? It all happened in your lifetime. Most people think of China and this is what they think of. That is not China. This is China. Sixty percent of the world's concrete, glass, and steel is being consumed daily in China. In America there are nine cities with a million people or more. Students, how many cities with a million or more in America did I just say?

Nine.

Eastern and Western Europe, 36. China and China alone, over 100. And by 2020 there will be over 160 cities with a million people or more. We have 9. See, I think America thinks of itself as some big fish in a small pond. We have become a small fish in an ocean. And the rest of the world would like to economically have what we may as a nation take for granted. Oh, by the way, in 2020 when China has 160 plus cities with a million people or more, they will not be the most populated nation in the world. India will be. India has 160 million preschoolers. If Indian preschoolers were a nation, they would be the fourth largest nation on the face of the earth. And India and China have higher educational standards, longer school years than America. And I thank god I don't live in those nations. And let me return to the equity issue. I'm very thankful that I don't live in those nations because my wife and I have five children. I have a daughter who has severe mental retardation, autism, and epilepsy. I have a son who 22 years ago, at the age of 11, was in a terrible accident and spent many months in a coma and on life support systems and lost a great deal of his ability to speak and hear and a lot of ataxia, so he can't write. In China, two of my five children would not have been permitted to live. My daughter, Audrey, who's in her thirties now, would not have been permitted to live in China. In her youth, life would not have been an option for her in China. My son, Paul, spent many months in a coma on life support; China would not have kept him alive. By the way, he's a four-year college graduate today. He has a good job. He's married. They've got a one year old, and they've got a two year old. We are the greatest nation on the face of the earth because we are committed to excellence and equity, but our desire for equity, we have a long ways to go to improve, but we've come further than any other nation. But you know what I figured out as an adult? Equity costs a lot of money. If you don't have economic supremacy as a nation, you can't afford equity in a global economy. And then we add demographics to it, and this is a good piece. The baby boomers, how many have ever heard that term? They are about to retire. There are more of them than there are of you. And the good news about this is in the next decade, this nation will have a labor shortage of ten million workers because there's more leaving the workplace than entering it. By the way, those leaving the workplace plan to live a lot longer than when social security were first created anybody thought would happen. This nation is going to have huge financial cost for those baby boomers in retirement, but for you it's going to provide enormous work opportunities. However, more jobs, but the kids in India and China and Russia and Slovakia and Romania and Hungary and Bulgaria, you're going to have to compete against. My generation never had to worry about competing against them. More opportunities, greater challenges. And with it, the workplace changed. 1970s this was jobs in America, tons of low-skill jobs. Not many at the top. But because of technology, anything that was routine, concrete, sequential, got automated out of the workplace so technology looked like this. Today technology is continuing to advance, but also global competition, and that is jobs. That is an extraordinary shift in a forty-year period of time, from the time I was your age until your age now. Great opportunity but not unless you have great skills. I know it's a little scary. Let me summarize quickly what I think you're going to need to be able to -- be able to do and be like to be successful. Look at this list. Level one is

I have knowledge in a discipline. Two is I can do -- apply the knowledge in a discipline. What does that mean? It means in a math class, I can do word problems. Three is I can apply knowledge across disciplines. What does that mean? It means what I learn in math, I can use in science. I know how to do that. Four is I can apply knowledge to a real-world predictable problem. And five, I can apply my knowledge to real-world unpredictable. Look at the list. What two numbers on this list would you guess that employers want workers to be able to function at? Is it one and two, or is it four and five? What do you think, students? Four and five. Therefore, to be independent as adults, what two numbers on this list are you going to have to be able to function at? One and two or four and five? The tests you take in schools, what two numbers are they based upon? One and two. That's the challenge. Now, that doesn't mean that what you're being taught and tested is bad. You can't get to four and five if you don't have one and two. You cannot apply knowledge you don't have. But if all you have is knowledge and no ability to apply it to the real world outside of school, you will increasingly find yourself functionally unemployable in the 21st century. So you've got to be stretched to level four and five. That's what you state -- and the leadership of this state is beginning to say. We've got to find ways to expand the opportunities for students, not simply to have them have the knowledge, but the opportunity to apply knowledge, because there's some students who are really, really good at one and two and utter failures at four and five. You know what they're good at? They're good at school. Being good at school is essential for success in life. So that I'm not misquoted, being good at school is what for success in life? Essential. But my message to you: while it is essential, it is not adequate. It's only halfway there to what you need. You've got to also be able to apply it. The other area I'll be glad to talk about is that the workplace is changing, pushed by all this technology. Reading requirements, the ability to read very sophisticated information and very technical information is going to be more important in your future than any generation has ever had in the past because that technology is going to change every three, four, or five months. And how many of you know an adult who has their VCR or DVD clocks going 12:00, 12:00, 12:00 because they can't read the manuals? You are better prepared. You are natives to this technological world than my generation, but you darn well better be very adept at it to be successful in the 21st century. And I close with this list. In addition to strong academics and being able to apply that academics to real-world situations, in addition to this issue of being able to read increasingly sophisticated information and then use the knowledge you read, this list of what I call guiding principles are why people get fired from jobs. Those guiding principles, in my opinion, are as important as any academic skill you will ever have. And one of the reasons I believe Iowa has such good schools is not because of the adults in your state, it's because as my staff has traveled across your state and other states in this country, when it comes to guiding principles, you seem to have very good guiding principles, which are as important as academics. Academics are very essential, not adequate. Being able to just have knowledge as tested on the state test, essential, not adequate. You've got to be able to apply that knowledge, and you've got to be able to exhibit these guiding principles daily in your lives. Question?

I'm Gary Reicks. I'm a senior at Des Moines East. My question is you said there was a gap in skills between what we know and what we needed for the work force. We're all juniors and seniors here. How do you think we're going to -- how are we going to catch up to that?

Daggett: Gary, thanks. I think the way you're going to catch up with it is a really important decision that you need to make, is what are you going to major in if you go to college. And if you don't go to college and you go into some

type of an apprenticeship or work force development program, what are you going to take those skills in. In the past an awful lot of students felt it didn't matter what I majored in, as long as I got a degree. The reality in the 21st century is it matters a whole lot what you major in. Go out and ask students who graduated five years ago from high school how many of them now have a four-year degree who are now back at home with mommy and/or dad, and mommy and/or dad are paying the bills because they can't find meaningful employment. So it's not too late for the juniors and seniors. Just think very carefully, I need to major in something that will give me a saleable skill once I get out of school. Thank you, Gary.

Good morning. My name is Erma Fetic and I am from Roosevelt High School. Since the technology is advancing so much -- and I know that in the immediate present, we can't change our school systems, what is the likelihood of success for my generation, you know, five, ten years from now?

Daggett: I think your generation probably has a greater degree -- probability of success than earlier generations. Your generation are natives to the technological world. You've grown up where technology is second nature to you. My generation, at best we're immigrants to that technological world. So we're constantly struggling even understanding the most basic of technology. How many students in the room have ever had this, an adult ask you to help them with a pretty basic piece of technology? You're better prepared than my generation, but you need to understand that where you are today is the beginning line of success in life and you've got to keep growing at it and working at it and you're going to have to be a lifelong learner. Thanks.

Thank you.

I'm Halley Stille from Southeast Polk High School. And my question is about those students that are fully capable of existing in today's world. They have all the skills they need, but they're just really not interested in achieving. I know that my school has these. They're just -- they have the skills. Everything is there. They're just not interested, no matter how much incentive is presented. So what would you do to motivate those students?

Daggett: I would -- when I have a group of students who are capable but not motivated, they're usually not motivated because they see very little relevance in what's going on in school, so they are just kind of going through the motions at best. I would encourage in those schools to have every class have a sign in front of them, and for that group of students, they be encouraged to ask this question every day, which is: where will I ever use what you're teaching me today? And as classroom teachers begin every day with that discussion, ask kids to challenge them, because I believe if they see some degree of relevancy in what's being taught, that will help motivate them. I think we also need to bring back graduates and dropouts from five and ten years ago to our schools to say, hey, look, I was just like you. I didn't become prepared. Look what's happened to me. Do you want to be like this, or do you want to have a better standard of living and quality of life. We need to bring a dose of reality to that group of students. Thank you.

I'm Molly Pollpeter. I go to Marshalltown High School. For those workers in India and China that offer to work for cheaper, how do we in the U.S. keep the good jobs here?

Daggett: Great question. Do you remember on my application model, in fact, where I had level four was being able to solve real-world predictable problems

and level five was real-world unpredictable? I think Americans are the most creative people in the world, and that is based upon the fact that I've seen workers throughout the world and I've seen students throughout the world. We are the most creative. We are the most innovative. I think our strength as a nation is creativity and innovation, and I think our society creates some of that. I think our schools and the broader culture around the schools create some of that. Our problem is we've got to make sure we have strong academics that underpin that innovation and creativity and not lose the innovation and creativity. That's how we're going to compete. We're not going to compete simply by what we know or working harder, because we simply cost too much as a nation. Innovation, creativity. Thanks.

Thanks.

Hi, my name is Alby and I am a senior at Roosevelt. I was wondering how you expect us to present the topics you've been speaking about to our peers at school and how we approach them and try to inform them about what you've been telling us in terms of technology?

Daggett: Good question. I'll give you three suggestions. Number one, get a copy of today's tape. The session I did the first hour or the first thirty minutes or so, show it, and then you lead a discussion like we're having right here. My belief is most American students, once they hear the message, are willing -- most of them, not all of them -- to roll up their sleeves and say let's at least begin to talk about this. So use the tape, number one. Number two, go to my web site. And I'll put the web site up. We already put it up earlier. And there are several papers on that web site. There's a paper on there, preparing students for their future. Download it. Share it with others. And the third one is invite local business leaders into your schools. Talk to your teachers about inviting them in, sitting them down, and let them talk to students about the changing world that they have to compete in, because I think that will give students a better sense of reality than simply what we do typically in our schools. Thanks.

Thank you.

Hi, my name is Hannah Norris. I'm a sophomore from Southeast Polk, and I just wanted to know how does what you presented today apply to No Child Left Behind?

Daggett: I think it applies directly to no No Child Left Behind. No Child Left Behind has two basic provisions in it, one of which is higher standards. We're raising the standards. And number two, all students. The higher standards are to compete internationally. The all students are the equity issues. I think no child left behind is based upon both economic issues, making America more competitive, higher standards; and equity issues, making sure all children in this nation have the opportunity to be successful. So I think it's a glove fit to No Child Left Behind.

Thank you.

Hi, I'm Krys Melton from Roosevelt High School, and I kind of wanted to talk about globalization. Obviously it's inevitable because all of this technology is increasing and the world seems to get, like, smaller by the day. What do you think are some of the things that we are sacrificing with globalization, and what do you think are some of the things that we gain from it? And what's your, kind of, personal opinion on it?

Daggett: I want to ask clarification. When you say "we," you mean we as Americans.

We as Americans, we kind of as a nation. Like, do we really want to know that we can be, like, just sitting there in our, like, classroom or whatever that someone can figure out where we're doing what we're doing all the time and that we don't have any privacy or solitary anymore and that it's just a bunch of people in this world and you're not, like, really an individual anymore.

Daggett: I think what we sacrifice as Americans is a disproportionate number of the most affluent jobs in the world. What we sacrifice is the fact that the level of affluency in this country is something we as a nation can hardly comprehend. If you take in America in our schools, we have something called free and reduced lunch, and that's for young people and their families who live below what we call the poverty line. The poverty line in America, which we consider to be pretty low, puts you at the 90th percentile of affluency worldwide. Okay? So you can be in poverty in this country but worldwide in the top 10 percent of wealth in the world. We as Americans have totally lost perspective of that. Globalization is going to threaten that because they can compete directly against us and they want to have a fraction of what we have. As you begin to look at globalization, we also are probably going to be threatened by some of our freedoms to do what we want to do when we want to do it. We're probably going to have to work longer and harder. We have one of the shortest work weeks and the shortest school days in the world. One of them, not "the" shortest but one of the shortest. We're probably going to have to work longer and harder than we have in the past. This issue of -- the privacy issue that you raised I don't see as a globalization issue. I see it as simply the ability of big brother to see what you're doing when you're doing it. That is not so much a globalization issue. That's simply an issue of privacy, and that is an issue that I think in some ways is more scary than the globalization issue to me. Thanks.

Thank you.

Hi, my name is Joel Conrad. I'm from Marshalltown High School. You talked a lot about how we need to change to better prepare us for the future, our schools. And I just want to know how you think this will affect our universities and private colleges.

Daggett: How will it affect our universities and private colleges? Hopefully our private colleges and universities will be willing to put that same statement in front of every classroom: where will I ever use what you're teaching me today? I believe one of the greatest strengths of American education is our higher education institutions; however, and forgive me for some people in higher ed, not all but many higher ed programs have become disconnected from the real world. The term we use is they're in the ivory tower. I spent part of my life in a university, okay, as a teacher and an administrator. They often lose sense of reality. However, having said that, we have the finest university systems in the world. Our problem is we've got the best and the worst of higher education in the world in this country, and most students do not look and their parents don't look hard enough at the quality of the institution and the major that they're taking. I think if we can have young people like yourselves become more informed consumers of the university and stop applying into universities and to majors that lead you nowhere that that is the most important thing we can do to turn around higher education. They're like everyone else; they're not going to turn around unless there's a real need, and their need is going to be felt when people stop applying to their colleges and to their majors. But again let me

add, we have the best and the worst of higher ed in the world in this country. Thanks.

Thanks.

My name is Alan Nagel. I'm a sophomore at Johnston. You spoke about how America's education system encourages equity and excellence. At what point does equity detract from excellence standards, if at all?

Daggett: I'm of the personal opinion that it never detracts. I believe that all students in this country need to be made to be all they're capable of being and that the quality of a human being, the most gifted and talented amongst us, have a responsibility to the less capable amongst us, are those who have been deprived of helping share our skills, our knowledge, because I believe we as a nation, we as a community, we as a family become stronger when our weakest common denominator in terms of skills and god-given opportunities, when we raise their level, we raise the level of the entire organization. I say that as a parent. I mentioned I have two disabled children. I have a daughter who won every kind of state and national award you can imagine when she was in school and in college. I have a son who's a pretty good student but not a great student. And I have a son a little bit like one of the students asked me here; he'd like to go to school but never showed up for class. Our family will be judged based upon, I believe, how the total of the five children do. I believe a community needs to be judged based upon the total of what all of those children do, and the nation needs to be judged upon that. Thanks.

Okay, thanks.

Hi, my name is Tess Pocock. I'm a sophomore at Roosevelt. Earlier you talked about how cell phones and texting have changed testing. In the future with these sunglasses and buttons and watches, do you think that being smart will be considered the actual knowledge a student has or their ability to find information?

Daggett: I want to tell you I've got a lot of good questions, and that's the best one I've heard. I think it's the latter. I think it's going to be the ability -- not simply what you have in your head, but how to access, use, evaluate information on an ongoing basis. I think it absolutely is the key to success in the future and what we'll consider academic excellence in future. Thanks.

My name is Nina Ramm and I'm a sophomore at Roosevelt. It sometimes seems like the United States puts less stock in intelligence or at least takes it for granted. Do you think that public opinion about schools will have to change before reform can exist in schools?

Daggett: Yeah, I do. I think schools are a reflection of the community in which they set in. And in many ways, if a community has high expectations for schools, schools rise to that occasion. The presentation I gave you for the first thirty minutes this morning, somebody asked how could we share that with other students. And I appreciate that observation. I would suggest equally as important, we need to share this with parents, with general public, with taxpayers. Schools are an extension of those communities. We've got to raise communities' expectations across the board. Thanks.

Thank you.

Hi, my name is Romen Borsellino. I'm a junior at Roosevelt. As you said before, one of your biggest fears is kids from India and China getting good engineering degrees and coming to the United States and getting good jobs here. My question is are you, for the most part, opposed to foreigners coming to the United States and then getting most of those good jobs?

Daggett: I'm not opposed. What I would like to see -- and it goes back to my discussion, equity and excellence -- I'd like to see worldwide equity. And I think as Americans, we often talk about the importance of equity, but we become a little bit what I call ethnocentric as a nation. Equity stops at our borders. We've got to have equity worldwide. I would like to be able to have our major research and development centers continue to have engineers, medical leaders, others from around the world, while we have an impact on their nations as well, where our best and brightest also share what we know. I said earlier that the strength of a family is based upon how the whole family does. The strength of a community is based upon how the whole community does. The strength of this nation is based upon how the whole nation does. I believe the strength of the world is based upon how the whole world does, not just how America does. Thanks.

Hi, my name is Allison Webb, and I'm a sophomore at Woodward-Granger. My question is with higher standards, there are still going to be a child or children that are still below average. So my question is how are we going to make this work with some or many children who are still below average?

Daggett: If we think about averages, half the students will always be below average. It's a mathematical reality. My view is, however, we just make every child all they're capable of being. I go back to my own family, which is representative of the students in this audience. For one, got 1600 on her SATs. For one, literally, it was getting her potty trained because of the severity of her multiple disabilities. In some ways getting her potty trained was more of a challenge for her and family and support systems than the oldest daughter winning every kind of state and national award. Or for the young man who was in the accident, my son who was severely injured, lots of people would have given up on him. Lots of nations would have totally given up on him. He ended up being a four-year college graduate, a major in computer information systems. My dream is not that all kids hit the average. My dream is every child becomes all they're capable of being, whatever that may be. And I think that is what should underpin and philosophically does underpin no child left behind and many of the movements in this country. Thanks for your question.

Thank you.

I'm Chris Jessen, a sophomore at Southeast Polk. And my question is should schools create a stronger emphasis on mathematics and science rather than social studies and English and foreign language in order for students to be successful.

Daggett: The answer is no, they should not; however, they should have a much stronger commitment to math and science than they now have. I believe in math and science. Our standards are too low. I believe we've got to raise them, but I don't think you raise them at the expense of language arts, at the expense of social studies. I think all the core academic areas are actually equally as important, and you can't raise one at the expense of the other. You've got to raise the water level, and we can raise it. The fact of the matter is we have too low of standards almost across the board in this country, but they're especially low in most schools in math and science, so the amount of gain they need to make is greater than in most areas. To all the students, you had great

questions. I'm sorry I didn't have time to go in more depth on some of your questions, but we wanted to get through all of them. I began my presentation today by saying I thought the best schools in the world were American schools because of our dual commitment to excellence and equity. I also said that I thought Iowa had the best schools in the country. I think you as a group of students and the questions you asked are very, very reflective of that. The quality of your questions was great. I concluded my general presentation by putting up these guiding principles: respect, responsibility, courteousness, all that. You have exemplified them in spades. Thank you very much. Have a great holiday season. [APPLAUSE]

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