

ADDRESS

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"HOW TO IMPROVE THE SCHOOLS -- ASK THE KIDS"

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My title, "How to Improve the Schools -- Ask the Kids," has a little bit of history. In the United States, we have a market economy, and there's hardly a day that goes by when we turn on the TV set or radio or look at a newspaper that we do not discover some kind of a poll that tells us what people say about why they're doing one thing or another. Last week we had one of those polls telling us what Americans think about sending troops to the Middle East and under what circumstances we ought to fight. In other situations, we ask people why they have come to a place, why they have moved, why they have purchased a certain product, or why they have voted for certain candidates.

Now, over the last 10 years we, as a nation, have been paying considerable attention to the shortcomings of our school systems. But it is interesting that we have not applied the same kinds of techniques that we use in the rest of our society to analyze and solve the problems of schools. For example, it's only quite recently that there have been polls of school board members and teachers to ask them what they think are the critical issues in schools. It's only a few years ago that the first poll was conducted asking people who used to be teachers why they left. That's important information because we have a world that's

full of former teachers. Wherever I travel and almost every time I enter an airport, somebody waves at me and says "Hi Al," and I take a look and the first thing they say is, "You don't know me, but I used to be a teacher." For awhile, I thought I would resign from the presidency of the AFT and start a new organization called the American Federation of Former Teachers, which would be one of the largest organizations in the world. Almost everybody used to be a teacher.

Well, we have done very little questioning, very little polling, very little asking of teachers why do you stay, why do you leave, what is it that makes you think of leaving, what are the satisfactions, what are you unhappy about? In industry generally, and especially in recent years with the emphasis on the success of the Japanese and the Swedes and others around the world that are competing with us, we have come to the conclusion that one of the things that successful businesses in those countries do much better than we do is that they ask employees how to improve their work and to make decisions. They find that if employees make decisions, often they are able to find better ways of doing things. We are moving toward that in the schools as we move toward school-based management. However, one of the things that we are still very far from is asking the kids about schools, and one of the reasons that we very rarely ask the kids is that we do not think of them as the workers in our schools.

Let me suggest an experiment to you. If I were to come to almost any school in this state or any other state in the United States, and I walked in and asked the principal and

the teachers this question -- "How many people work in this school?" -- they would start counting up teachers, secretaries, custodians, people doing maintenance, paraprofessionals, school aides, and so forth, and they would add that up and they would say 250 or whatever. I am willing to bet anything that I could go to 100 schools and never get the answer of, say, 2,000 because the students are counted as workers, too. Yet even though we do not think of students as workers, if the students don't work, the job of the school doesn't get done. The only work that really counts in schools is the work of the students.

Let's spend a few minutes on that. The concept that TedSizer has made popular is a concept that goes back a long, long time -- it goes back to Plato and one of his dialogues in which Socrates is paid a compliment. One of the discussants said to Socrates, "You are a great teacher." Socrates' response was "No, I am really not -- I am just a midwife." Only a midwife, he said. What Socrates was essentially saying was that if you want to have a child, you are the one who has to get pregnant, you are the one who has to carry the child, you are the one who has to go through labor. I am only a midwife. That is, the teacher only does a small part of the helping. Socrates was here comparing learning to giving birth to new ideas and new skills, as being comparable to giving birth to a child. Most of the work has to be done by the student. The student has to listen, the student has to read, the student has to write,

the student has to question, the student has to imagine, the student has to build. It is all the things that the student does that make learning happen.

Wherever I go, as I talk with teachers, I hear phrases like, "I taught them, but they didn't learn it." Now, isn't that ridiculous! Did you ever meet a salesman who said, "I sold it, but they didn't buy it," or a building contractor who said, "I built it, but I don't see it -- it's not there anymore"? I taught them, but they didn't learn it. In the process of learning, yes, the teacher can be of some help and all the other adults in the process of education can be of some help, but ultimately learning comes about as a result of the work that the students do.

Therefore, the most important set of questions that we have to ask, and they are almost never asked, are the same questions with respect to students that most of us ask with respect to adults in the places where we work, whether they be law firms or factories or schools. That is, how can we get the workers to want to come to work every day? How can we get them to work when we are not watching them? How can we get them to really do the work and not just make believe that they are doing it? That is a job a principal has to think about: "How do I do that with teachers within our schools?" The school board has to worry about that: "What do we have to do in order to get all people who work here to really do the work and, by and large, to do it on their own? Because it is very inefficient and usually not possible to have a system where you've got lots of people constantly watching lots of other people to make sure they are really

doing the work." Managers in business and in industry and in the public and the private sector are constantly thinking about these issues of the workplace, but very few of us are thinking about these issues with respect to students.

One of my favorite thinkers in this area is an Englishman. Unfortunately, his books are not published by American publishers, but in Great Britain, Canada, and other places he is considered the British management "guru." His name is Charles Handy. Handy some years ago said the students are workers, and the effectiveness of education and what kids learn depends a lot more on what they do than on what the teacher does. After all, if the teachers are lecturing all day long and if the kids aren't paying attention or daydreaming or doing something else, the greatest lecturer in the world is going to have a hard time moving forward. The listening and the engagement on the part of the students are important. So Handy said, "Let's take a look at the kind of workplace the school is and see whether it's an effective place for students -- for the kids."

There's been a lot of talk recently about working conditions for teachers. What are effective conditions for teachers? What kinds of conditions do superintendents need, do principals need? Very, very few people ask the question, "If kids have a job to get done, if they are to learn as a result of doing work, what are the kinds of conditions that students need to make it possible for them to do their work successfully?" Well, Charles Handy said, "Think about it this way, what kind of a workplace is a school? What does it compare to in the outside world? It's not like a coal mine,

it's not like a steel mill, it's not like a boiler factory or a clothing factory. A school or classroom is most like an office because people sit at desks, they read reports, they write reports, they listen to oral reports, they give oral reports, they manipulate words, they manipulate numbers -- all the things that you would do in a newspaper office or an insurance company, or a superintendent's office. That's the kinds of stuff that kids do at desks. It's a kind of office work that they are doing."

And then he said, "Just think now of the kind of office that we have for these kids. If this were a desk in a classroom right here, and if I came to school as a student, I would be told, 'sit down here at this desk, look around and you will see 30 other desks with 20 or 30 other workers sitting at their desks, and they are all going to be doing the same thing that you are doing. The first thing that we want you to know is that you are never ever to talk to any of these other people sitting at these other desks, and they aren't to talk to you. The next thing is that the work that you have is going to be given by that person over there and she is the teacher. She'll tell you what to do. The next thing is that in 50 minutes a bell will ring and all 20 or 30 of you will stand up, and you will all move to different rooms, and you will have a different desk, and you'll have a different boss who will give you totally different work to do. And all day long, every 50 minutes, seven times during the day, you will move to a different room, and you will have a different bunch of coworkers who you are never to talk to and have a different boss who gives you the work.'"

Is there anybody here who has ever seen an office organized that way? Is any superintendent's office organized so that people are given exactly 50 minutes to do the work and then move on to another desk and have totally different work and aren't allowed to talk to anybody around them? How about newspapers, insurance companies, government offices? There isn't any other office that's organized that way. If you ask people what's wrong with that, they would say, "Look, if you are sitting there and if you don't understand what to do, we expect you to lean over and ask the person at the next desk 'Hey Harry, am I getting this right? Could you show me?' because that's the way most people learn. They learn by asking people who are around them to help them." In the real world that's called common sense -- intelligence. To ask the person next to you in school is called cheating.

We are really teaching kids that it is better to sit for 50 minutes and not be able to get any work done than it is to lean over and ask somebody for help if there's something you can't do on your own. We would never move people from their desks every 50 minutes. Why not? Well, did you ever sit in a new office with a new desk? I know what happens to me when I sit at a new desk. I start looking through the drawers to see if the last guy left something. I walk over to the window to see what the view is outside, I try the shades, I walk over to check the closet. People feel rather uncomfortable when they are first in a new place sitting at a new desk; they want to get the feel of the whole place. Imagine moving people every 50 minutes! Very disconcerting. Different kind of work every 50 minutes. Well, gee, in a

workplace you'd never do that because you'd say, "Some people are just beginning to get the hang of the stuff they started in the first 50 minutes. If I give them another 5 to 10 minutes, they really might be able to do it." The difference between a good student and a bad one is that the good student is the one who is able to do it in time. The failing student might have passed if he'd had another week or semester or two weeks or another 10 minutes in each period.

The other thing is giving the kids a different boss, a different teacher every 50 minutes. Most workers find it very difficult to develop a relationship with and adjust to the expectations and the habits and the inclinations of even a single supervisor. It's very difficult because we need to find out what does she want, what does he want, is this right, is this wrong, is this being considered acceptable? You are not quite sure, sometimes you are surprised, sometimes you did what you think is a great job and get criticized for it because you haven't quite figured it out right. Imagine having a different person be your boss every 50 minutes, trying to figure out 7 different teachers in the course of a day. And then, of course, there's the student who says to the math teacher, "Gee I've got a problem in science, could you help me with it?" The math teacher says, "Talk to your science teacher, I don't do that." In school the only one who has to know everything is the student. Each teacher just deals with his or her own subject matter.

Well, Charles Handy asks the question, "Why do we do it this way? Why is it that there isn't any other job in the

world that's organized the way schools are?" Because we do not think of the students as workers, we think of students as material objects that are being worked on by the teachers. We think of the students as automobiles moving along on the assembly line: During the first period, the students are in English where the teachers are hammering English into them, and then they get moved along the conveyor belt to the next teacher, who drills math into them. The students are considered passive raw materials, they are considered objects that are being worked on or manufactured, and nobody is thinking about what does the student think, how does the student react, how can we engage the students to think. Instead, they think is the teacher a good teacher, is the teacher tightening the screws, putting on the parts? We are taught that the whole emphasis is on good teaching, what is a good lesson, what are good textbooks, what are good materials. Very, very, very little attention is devoted to the engagement of students. What do they think? What would make them involved and engaged?

Well, let's get to that issue. Now, this issue of asking the kids came up, and there was actually a sort of survey taken of kids who dropped out. A student media service called "Children's Express" had teenage interviewers talking to kids who had dropped out. Now, before I get to what they said, let me talk about the dropout issue for a few minutes.

We have had over the last 10 or 15 years a very strong, concerted effort to reduce the dropout rate. It is important to focus on that issue and not hide our shortcomings. And I

am one of those people who feels that it is necessary to talk about our shortcomings because if we do not, we are not going to do anything to improve things. Nevertheless, in certain ways we have improved. We think today that the dropout rate is terrible because 25% to 30% of the youngsters do not get a diploma by the time they are 18. About half of them later on do get equivalency diplomas, so that if you count that the real dropout rate actually is about 15% or maybe even less than that. We think of that as a shortcoming. It is a shortcoming. And it makes people want to go back to the good old days.

Remember the good old days? Days when the family was intact, when we had a traditional curriculum, when nobody in schools heard of drugs, when if you didn't learn something you got left back, when if the students went home and complained to their parents about something the school was doing, their parents gave them a beating? There was strong family support for education.

But when I look back in books to see what percentage of youngsters graduated high school in the United States in 1940 -- the good old days -- the answer is 20% graduated high school in the United States and 80% dropped out. But there were no headlines about 80% dropping out, because they were dropping into a different kind of world. They were dropping into a world where 20% was the highest percentage that had ever graduated up to that point, and where most people thought we did not need any more people to graduate from high

school. As a matter of fact, most people thought maybe we have too many educated people already who are just going to be doing a lot of unskilled jobs.

Now, I am not criticizing the fact that we are today spending such a tremendous amount of time and energy and effort and concern on the issue of dropouts, because whereas the 80% who dropped out in 1940 could go to the factories and get jobs, today, given the changing nature of work and the smaller number of unskilled jobs, the economic prospects of dropouts are terrible. There certainly is a need to be concerned.

However, I don't like the fact that we are constantly thinking only of the dropouts. First of all, we do not have a good definition of what a dropout is. In some states, a dropout is a kid who leaves school before he's 18 if he hasn't got his diploma, but if he remains until he's 18 and still doesn't get his diploma, he is not a dropout. In many states, if you come to school once a month and therefore are still on the rolls, and you keep doing that until you're 18, you are not a dropout. Or you can come to school every day and sit in the back of the room and say to the teacher, "If you leave me alone, I'll leave you alone," and just put your head down and go to sleep. But you're not counted a dropout because you're there every day. So the concept of a dropout is too narrow because you are only dealing with those kids who, for some reason, decided they weren't getting anything out of school and therefore they shouldn't come. We aren't dealing with those who aren't getting anything out of school but come once in awhile or those who come every single day

and are absolutely disconnected, who are just as dropped out in their heads as those who are physically dropped out. And, finally, the whole dropout issue doesn't deal with the whole question of engagement and what are kids getting out of school. It deals with the question of attendance more than it deals with the question of education.

So now let's return to what is it that we find out when we ask dropouts what led them to drop out? And what do we find out when we talk to kids who are in school? They all say pretty much the same thing. If you go to hundreds and hundreds of high schools across the country and you talk to kids, you find out that they are very, very bored in school. Or they'll tell you they find lots of things that interest them like talking to people in class and when they say something they find interesting, they like to have discussions. They like to read books, but they don't like to do workbook exercises. They do not like to sit still all day and listen to one person each 50 minutes talking 90% of the time. They like to read real books, not the textbooks where you do questions at the end -- boring.

Another thing you find is lots of students -- and I am talking now about the students who are still in school, students who intend to stay in school, students who intend to get diplomas and graduate -- ask questions like, "Do I have to learn this, is it going to be on the test? Do I have to take this course, is it needed for graduation?" In other words, you get the sense, the feeling, as you talk to students across the country that they are all saying what is the least that I can do in order to get out of here? Not

what is the most I can do, how can I be excellent, how can I learn as much as I can about all the things that are being offered here? How can I do the best that I can do? Yet there are some who work very hard, a handful of students who want to go to an elite and difficult-to-get-into higher education institution. Those kids are working beyond the minimum because they know that there are a limited number of seats in these colleges and universities, only a handful of people get in and by and large those schools accept students on the basis of merit. And so those high school students work hard, but the others are kind of trying to figure what is the least that I can do in order to get by.

The other thing that you get, aside from the boredom, is a lack of striving, a feeling of disconnectedness. The way students describe life in many high schools is the way people describe life in many of our cities. You are kind of lost, people around you don't care, there are so many students in this school that most people do not know who you are, they do not know your name, it's frightening. Think of being a high school teacher and meeting 25 students each 50 minutes or, in some districts, 30 students or 20. Essentially, it might take you 2 or 2 1/2 to 3 months before you learn the names of those students. I remember that as a junior high teacher in New York City, we had open school night, the night when parents came, very late in October or early November, and I had not yet learned the names of all the students. There were parents saying I'm Mrs. so-and-so, and I am trying to think of who the child is because after five, six, seven weeks of school and with very large class sizes in those

days -- as many as 37, 38, 39, 40 times your five classes -- I'm still trying to learn all the names. And there I am trying to meet the parents and trying to have a discussion about the individual needs and problems of their children. These are still some of the complaints.

Now, most of the discussions about schools, as I indicated a few minutes ago, deal with trying to improve how teachers teach or the materials that they use. There is nothing wrong with that. But now you should have a picture in your mind that most people, and that includes kids and adults as well, are not able to sit for five hours and listen to someone talk and get very much out of that talk. Most people are not able to do that.

Schools developed in the Middle Ages as a voluntary institution. If a husband and wife had 10 or 12 or 13 children, they would have said, "Well, two of them seem to be very bookish. They are able to read things, they are able to sit and listen; we will send them to school. The others were sent to be fishermen or hunters or dancers or musicians or something else. School was not something that was for everybody. Schools were something for those who could sit still, be quiet, and get something out of listening to somebody talk. Now the fact that we do not allow kids to talk to each other, there is a practical reason for that: If you have 20 or 30 kids who are all talking to each other, the amount of noise in the room is very great, and it is difficult for the teacher to figure out whether the students are socially chatting or whether work is getting done. But it's very lonely being in a place with colleagues and friends

and not being able to communicate with them, especially in a high school where students are programmed individually so that every 50 minutes you might only have 2 or 3 people who were in the previous room with you. The students and the teachers have to get to know 100 or 150 different kids, different ones each period. It's not that way in almost every other workplace. If you work in a law firm or some kind of office, there is some form of group solidarity, some kind of esprit de corps, some kind of teamwork. But it's hard to develop teamwork in a school when you can't talk to the other members of your team and when everything is supposed to be individual.

Well, the question is, is it possible to change this? Is it possible to do something different? Is it possible to organize schools differently?

I would like to put before you not any finished plans -- I don't have any finished plans -- but some ideas designed to stimulate thinking about ways in which schools could be changed from the point of view of students. That is, how do you get work that is not fragmented constantly? How can you create a school in which kids can develop a spirit of teamwork and comradeship and, therefore, be motivated by the peer group? How can you do away with the confusion that results from being constantly moved to a different adult? How can you get the kind of help that one gets in everyday life? Most of us learn on the job. We didn't go to a job with our college notebooks and sit down and look up which professor gave a lecture that is going to tell me what to do today. We come to a workplace and we have some general

skills in our education, and then we turn to people around us to help us with specifics. All of us are essentially learning through apprenticeship programs; 90%, 95%, 99% of what we do is not something that we learned directly and formally out of any kind of report. It is something that we learned through a direct or on the job or some kind of apprenticeship experience. Very few of us think of the fact that while many students never learn how to read, even various students who are considered very slow, all learn how to speak and how to listen. Why? Speaking is learned through an apprenticeship program. Nobody sits down and says, "Now, little 1 1/2 year-old-kid, you can't say those sounds until first you've learned the easy sounds, and then you are going to learn intermediate sounds and then you are going to learn the difficult sounds. You are not going to go from the easy sounds to these other sounds until we give you a test, and then you can learn sound combinations." It doesn't work that way.

And so I would like to suggest a few ways in which schools might be changed. It is important to get the kids to be engaged, to be more active. It is important to work with them, getting them to be able to learn more effectively. And it is important to create more effective workplaces. But we all know, for instance, that one of the problems in schools, one of the problems with group learning, is the fact that everybody learns in a different way and everybody learns in a different time period. Some people can figure something out in 3 minutes, somebody else will take 5 minutes, somebody else will take 15 minutes, and somebody else may take more

than 2 hours to figure out the same thing. Now in many workplaces that's o.k. As a matter of fact, in most companies somebody is going to figure out something very quickly, somebody is going to be a little slower; they do not all have to do it together. But when you've got a class to go to every 50 minutes and the main method of teaching is the teacher talking, everybody does have to learn within the same amount of time. While each and every individual may learn at his or her own rate, in school they better learn at the rate that the teacher is speaking because the teacher can't speak to each one of 25 or 30 people individually.

Take the common case of a teacher who has a class where some kids are a little slow, some are in the middle, some are way ahead. Which group am I going to talk to? If I talk to the group that's way ahead, I am going to lose the bottom two thirds of the class. If I talk to the group that's far behind, the top two thirds will be bored. If I talk to the group in the middle, then I have the bottom of the class that doesn't understand and the top that is going to be bored. How can teachers do it? Well, the answer is maybe teachers shouldn't be talking so much. And that is one of the keys to providing more effective education: Ask how we can develop a system of education which gets away from total dependence on a single individual -- the teacher talking about 85% or 90% of the time, according to all the research that's been done. Are there systems of education in which people learn without someone standing up there talking most of the time?

Well, there are. As an illustration, let's take a look at the Boy Scouts and Girl Scouts of America. Boy Scouts and

Girl Scouts have a curriculum. You join as a scout and you have no rank at all, and the first thing you have to do is pass a whole bunch of tests in order to become a Tenderfoot and then you pass another bunch of tests to become a second class scout, another for first class and then you take a whole bunch of merit badges until eventually you reach whatever the appropriate ranks are -- Eagle Scout for Boy Scouts and the appropriate rank in the Girl Scouts. How does a single scoutmaster manage 20, 30, 40, 50, 60 kids, all of whom have joined at a different time and all of whom are at a different place in the curriculum? You have never had a scoutmaster standing in front of the group giving a lecture about something because most of the kids aren't doing that particular thing that he would be lecturing on that day. Learning is going on, but it does not go on through the lecturing of the scoutmaster. Instead, he says, "Johnny, here is the handbook and here are the pictures of the knot you've got to learn, and here is a piece of rope. Go over there in the corner and see if you can copy these. If you can't, I'll be over to help you in a little while." And then the scoutmaster goes to a second person and says, "Jeff, why don't you ask Frank to help you with this? He is good at it."

And so one thing you do is ask the kid to learn it himself from the book. The second thing you do is team one kid up with another. The third thing you do is say, "Barry, why don't you go over to the YMCA swimming pool where there is a registered American Red Cross swimming instructor? That is where you'll learn your swimming and pass your swimming

test." Or, "Why don't you go and visit so and so; he's listed as a person who gives civics merit badges. If you meet with him, he will tell you the things that you have to do."

Community resources are used, peer groups, and volunteers are used. You have the work of individuals, but, essentially, if you look at Boy Scouts or Girl Scouts, it is an educational system in which students learn by going through a series of individual tasks and performances which they do in their own way and at their own rate. If the kid can't learn the knots from the book, I will go over to him and say, "Well Johnny, I am sorry that I told you to do it that way; that's very difficult to do. Here is a board that has the actual knots on it. See if you can copy those now that you can have the feel of a loose one. See if you can do it that way." If that doesn't work, then I will say, "Jack will help you. Jack has these fascinating stories about this rope. He pretends the rope is a rabbit and your hand is a tree, and the rabbit goes around the tree down into the hole and comes back out, and by telling you different stories he's going to tell you where to move the rope and he's got a lot of things like that which will help you remember."

In other words, what is developed is a different way to approaching the kids. First, try and get him to do it on his own through a book. Second, try and get him to do it through some sort of a concrete model which is a little less abstract than a book. Third, get someone else to help him. It is a series of different ways of approaching a child.

If we think about it, the other thing that is very effective about this is the privacy of learning it offers. This is a problem of schools: learning is not a very private experience for many youngsters in schools. There is the youngster who comes to school with all kinds of advantages and always has his hand raised and knows the answer to all the questions; that kid loves school. He would like to come on Thanksgiving Day! Every time the teacher asks a question his hand is up and everybody says that person is smart. But what about the kid who never seems to be able to get the answer to the question? The kid who is sitting and praying that no one ever calls on him? What do you do with him? Every time a kid who doesn't have the answer is called on, he stands in front of the group and is turning red and all of his friends are kind of either saying or thinking you're stupid. That kid is being humiliated. For that kid, being in school is one of the most painful and excruciating experiences that you could possibly imagine. If the kid goes through that day after day, he develops an extremely hostile attitude toward the school and he stops trying. Once he stops trying, the whole education game is over because if he stops trying, there isn't anything that he's going to learn. Learning depends on effort on his part.

Now notice that what happens in Boy Scouts and Girl Scouts. By and large, the kid is not asked a question in front of the whole group. He is told to figure it out by himself with the handbook, to figure it out with just words, to do something with one other person. In other words, the mistakes that one usually experiences in trying to learn

something are not public, so there is no public humiliation in this process of learning. It is relatively private. It's like taking driving lessons from a driver in a driving school rather than having somebody who cares for you give you driving lessons. Most people would rather pay someone who they don't know to do that so that your loved ones will not see the mistakes you are making when you begin that process.

Well, that is one kind of a model for schools. Is it possible to construct the curriculum of the schools in such a way that instead of the teacher standing up and talking, there are a series of tasks for kids to do which they can approach in a number of different ways -- that is, either do it themselves or have someone help them or do it through a model? Why not? Actually, there is a model in Australia, in the state of Victoria, where the entire high school system is essentially based on kids taking the equivalent of educational merit badges. There are certain required courses, there are certain electives and students proceed individually and in groups and in large part at their own rate. That's one type of model.

The second one, which I have written about, is about to be featured in, I think, the September issue of Esquire magazine in a fairly substantial article by George Leonard. It will feature a school in Cologne, Germany, which is one of about 60 schools over there that deals with something that we would call cooperative education, but goes way beyond that. Here in Minnesota you have the Johnson brothers, who are national experts in this field. The school in Germany is a comprehensive school which means it takes from all ability

levels. In Germany, fourth-grade kids are tested to determine what track of school they will go to: academic, vocational or comprehensive. Most of the kids who go to this school in Cologne didn't make it to the top school or they would have gone. So that most of them are considered in the middle or bottom ability level of the three-tiered system that Germany has.

What is different about this school? Well, first of all, teachers work in teams of seven. The teachers are told that they should really only have had six teachers in a group because of the number of students they have, but they have been given seven in a team because the school never hires a per diem substitute because a substitute doesn't know who the kids are and so the kids will run rings around the substitute and develop disrespect and bad discipline. So the teams are given one extra teacher. If somebody is absent, there is always a regular to fill in, but some days there will be two people absent, but the team still has to make do with those that it has.

Secondly, there is no bell schedule in this school. They don't have a system that says every 50 minutes the kids have to leave for another class. The seven teachers decide how long each period is, and they can make decisions on a daily basis by meeting with each other; they all have rooms right next to each other. You can say, "The kids are really involved right now; let them work on it all morning or let them work on it the whole day." Or you can say, "An hour and a half is too long; the kids can't remain interested that long. So the amount of time the kids work on something is a

daily decision that is made by the seven members of the team who can actually see whether it should be shorter or longer.

The third thing is that every teacher teaches to his or her strengths. A team of seven does have a German teacher, an English teacher, a math teacher and a science teacher, but it also may be that the math teacher is an expert in some area of history or that the German teacher is an expert in mathematical games and recreations. So every one of them can offer the team the strength that that person has and stay away from the weaknesses of a particular team member.

Now, the next important thing is this: These seven teachers and the kids that they have will remain with each other for five years. You cannot hear a teacher say, "Well, I inherited these kids from some teacher who ruined them last year, and I can't wait to get rid of them next June." This is not a factory where the kids are just passing through for five minutes while you tighten some nut or bolt. These kids are going to be with you all those years. You're going to get to know them and their mothers and fathers and sisters and brothers. And when you look at yourself in the mirror four years from now, you're going to know that if these kids are doing well, you've got something to do with it because you've spent a major part of your life together with them. You've taken what is usually a bureaucratic factory system where people are just moving in and out and turned it, in a sense, into a family or a moral community where people feel responsibility for each other.

Also, guess what happens to teacher accountability if you've got seven teachers who know that they're going to be

working together for five years? If one of those teachers is not going a good job, guess who is really concerned? The other members of the team. Here's a school that has 2,100 students, one principal and two assistant principals. Under German law, every principal and assistant principal must be in a classroom with kids at least six hours a week, and they like it that way. German administrators do not want to be considered non-teachers. They are outstanding teachers, and they want to maintain their position as teachers in the classroom. In other words, this principal and the assistant principals are not really involved in the evaluation of teachers. The shaping up is done by the members of the teams themselves. If somebody is doing a poor job or is lazy, the other members are going to say, "Look, Al, if something is bothering you, if you're not feeling well, if you've got problems at home, we'll carry you for a while. But when is this going to end because the rest of us are picking up the work?" Or, "The ways in which you're relating to these students is creating a problem for all of us because the students are getting to be angry, or they're getting anxious or something else which is preventing them from doing their work." So you've got an accountability system there.

Also, within the classrooms there is no teacher lecturing. The students are all at tables with five students at each table, and the students are given questions to work on together. In other words, they're expected to help each other find answers. One of the important things they learn is that in the real world most people don't have it all themselves; they've got to rely on others. And more and more

our economy and most of our businesses are operating on the basis of teamwork. Of course, they're not asked to sit at a table just to figure out what are the five major exports of Brazil. They're asked questions which involve thinking.

For example, suppose you have a map on the wall that shows the time zones and you say, "Here we are in Cologne. It's 6 p.m. here. What time is it in London? What time is it in New York? What time is it in Minneapolis? All right, we want you to spend a half-hour -- and we don't want you to look this up -- to see how you can come up with an interesting theory, a hypothesis: When were time zones first created and why? Were there time zones during the time of Jesus? George Washington? Come up with a theory, think again, and tell us why they were put into effect. Now the second question is, suppose time zones were abolished tomorrow. How would it affect the world? What would happen, who would be against it and who would be for it and why?"

So you see that in this school you have discussions, and you have kids reading things; you have them helping each other. Notice the kids talk to each other, notice that there is an effort to give them interesting questions, to turn them into sort of detectives and to get them interested in doing work. Most of us are not inherently interested in things. We get to be interested in things when we want to accomplish certain purposes. If you want to go someplace, you start reading about it, how to get here and what things will be like there. The same is true if you want to build something or buy something. Why not try to get kids involved in the same way?

This school has been in existence for six years, and it is exceptionally successful. It takes large numbers of students, many of whom are Turkish immigrants; they have about 40 different languages spoken in that school. A large number of these students were destined for the lowest track in the German system, and yet they end up going to colleges and universities because of this school.

These are two models. They are not the only ones. The question that needs to be asked is, how can we get kids interested? Well, one way to get kids interested is to have them work with each other. What have we found out in automobile factories? If an auto worker is not permitted to talk to anybody next to him and just has to spend 40 hours a week doing one particular thing, what happens? The worker gets angry, full of resentment, and you get all sorts of lousy cars. You get what amounts to sabotage from the assembly line. Because you can't take human beings and isolate them like that and expect them to show any interest. The new automobile that General Motors is about to bring off the assembly line, called Saturn, has employees working in teams -- teams of seven, by the way -- in which the employees inspect each others' work. They even sign the particular parts they made. And when they are finished, they get a certain salary, which is less than that which other General Motors workers get, but if their car sells, they are part of a profit making scheme where they will make more. So, if one of the workers is no good, they are going to try to help him, and if he is really no good, they are going to try to push him out because if that person ruins the automobile, it will

result in a lower salary for all the other people. In other words, there are incentives built into the program to get everyone to work together and to want to do a good job. We need to apply precisely those ways of thinking to the question of student learning.

I now want to spend a few minutes on the question of one of the reasons for why teacher talk predominates in our schools. It is because for a long time there was no other way of doing it, of teaching. Thirty years ago there was no other effective way of doing it because we did not have video tapes, audio tapes, computers, fax machines. Now we do. You can have a youngster sitting at a computer where he could find out the name of a kid in some other part of the country who has the same hobby or interest that he does, and he is able to instantly write to that person, over the modem. And some kid who is in San Francisco can write right back to him five minutes later and it can go back and forth. Just think about how intriguingly exciting that is. To be able to have pen pals and not have to wait two or three or four weeks for the letter. Think of what that could mean for student motivation.

We are not using the most of our imagination. We are not using these things. It is no longer necessary for the teacher to stand there and do it all because we now have supports. There used to be movies in schools in the old days, but you had to order the movies and it would take you four weeks to get them, and then there would be broken projectors in the school. But it is totally different today. We have the availability of VCR's where you can

actually give a video tape to a kid and say, "Take this home and watch it tonight." We have ways of reaching kids now that we never had before.

There is something else which we have today that we never had before. Remember back in the 60's and even before that, in many of the progressive experiments in education, there were attempts to move away from everybody doing everything at the same time in the same way? By and large, it didn't work. But it didn't work because in those days these programs demanded too much of teachers. The teachers had to figure out seven different things that different kids would do during the day. They had to prepare materials. They had to do research. They had to get pictures and models and games and all sorts of things, and it was just too much. Teachers burned out. And even if you had teachers cooperating with each other at different schools, it was still too much.

But with today's technology, it takes less to solve this problem, as well. The lawyers have something called Lexus. The medical profession has a data base where you can go to a terminal right now and find out the results of some research that was conducted yesterday. It is available one day later, it's available a few hours later to doctors all over the country. Why not have a national data base for teachers, a professional educational data base? Why not have a group of social studies teachers reviewing the video tapes, the audio tapes, the computer simulation, chapters of textbooks, the games, and the questions in their field, and why not have this group of outstanding professionals put that into the data base? A teacher says, "Tomorrow I want to have

different things for students to do, but I do not have the time to go through 100 video tapes and 55 audio tapes and all the different cards. I don't have the time to do that for every one of the classes I have each day. But I don't have to do that. I can just go to the terminal and out of there comes, in the opinion of outstanding teachers in the field, the best four video tapes, the best two chapters, some questions to throw out, and some games to be played." It is now possible to do in education what other fields have had, and that is essentially to end the isolation of teachers in self-contained classrooms and to create sharing, not just within one school, but with teachers throughout the country -- to use the knowledge, the experience that everyone has, and make it available to every single person.

What we really have asked of teachers is very much like requiring a doctor not only to diagnose the disease and recommend something but also to invent the medicines. That is what we are really asking every teacher to do -- first, figure out how to reach the kids, and then figure out all the particular things to do. That is impossible.

Let me conclude with this. In ordinary times, this discussion might be an interesting talk about how to reform schools and how to change them. I think it would be a terrible thing if we walked away from here with only a feeling that all these things are nice ideas and maybe we ought to try some. Because I think that the one thing that we ought to see, the one thing that is very clear, is that we are living in what is the most dangerous period of time in the history of American education, for the future of our

public schools. The handwriting is on the wall, and it spells great danger. We have had a period of eight years of negative reports on student achievement, and I should say to you that if you look at the results of the National Assessment of Educational Progress, they are devastating. Yes, we have special problems with poor kids, and there are special problems with minority kids. But what the assessments show is that the overwhelming majority of advantaged middle class kids in the United States are leaving school without being able to write a really decent letter or an essay. The majority of those who are graduating -- not only the dropouts -- are unable to use a simple cafeteria menu with prices and figure out how much change to get from x dollars after ordering a sandwich and a bowl of soup and leaving a 10% tip. The overwhelming majority of kids who are going to college in the United States are going only because most of our colleges have standards that are below standards anywhere in the industrial world. To put it in a form which is quite blunt and devastating, between 90% and 95% of the kids who are admitted to college in the United States of America would not be admitted to a college or university anywhere else in the industrial world; most of our kids who are at colleges or universities are basically getting their junior high school or high school education there.

Now, the American people are not going to permit that to continue. We see various things happening. We see Chelsea, Massachusetts, where the public schools were contracted out for a 10-year period of time to a private university. We see the Chicago plan with a separate parent-majority board of

education for each school in the system. We see the Wisconsin plan of vouchers, a voucher bill proposed not by a conservative governor, though signed by a conservative governor, but by a Black state legislator who was the chairman of Jesse Jackson's campaign.

There is a tremendous amount of ferment. I believe that we are living in a period in which we as public school educators, as school board members, as teachers, as union officials, must do something to save public education and do something that's real -- not phony, not public relations, not a gimmick, not a TV or radio commercial. We must turn to the public and say, "We agree with you, the situation is bad. We cannot promise that we are going to have all of the answers within the next five years, just as doctors can't promise to cure certain diseases and no lawyer can guarantee that you are going to win your case; we can't guarantee that we are going to cure all these educational ills. A lot of these things come to us from society, and we can't solve all the problems. But what we can tell you is, first of all, we acknowledge the problem. Secondly, we will abandon those ways which we know are ineffectual. And third, we will encourage the creation of new ways of reaching and engaging kids, so that over a period of time we will find methods which are substantially better than the ones we have now.

Now, the American people are reasonable. They will not abandon public education if we come to them with a reasonable approach, if we say we know that things are bad and we are trying to do things, we are going to try to make things better. But if we don't, then I think that in the next 10

years we are going to see some forms of radical Privatization. I think that this issue is especially important for school board members because there is no question that all of these forms of radical privatization are out to get school boards. Read John Chubb and Terry Moe's recent book. They essentially say the reason you can't have good schools in America is because of school boards. Not that school boards are bad. The reason you can't have effective education is that school boards are democratic. Therefore, they have to be responsive to all pressure groups. Any pressure group that hits you creates a new rule, a new regulation, and these rules and regulations prevent people in the schools from exercising the type of creativity and freedom you need for good schools. They are saying that school board people aren't crooked, evil people; they are doing exactly what they are supposed to be doing in a democratic society. They are responding to their constituents. But Chubb and Moe are also saying that this response creates bureaucracy and rules and regulations and laws that prevent the kind of creativity that you need. And they say that basically what we've got to do is get government, school boards, democracy off the backs of kids, teachers, and parents and create a market system of schools. Now, they don't talk to you about the dangers of the market, about who will be the winners and who will be the losers and what will be the role of advertising and all these other things. They don't talk about those things. But we are not going to win this argument on the basis of one intellectual argument versus another. We will win or lose this argument

on one basis, and that is whether or not the public believes one, that we recognize how serious this school problem is and two, that we are indeed encouraging changes that are very radical and very substantial.

The first thing that we have to recognize is that the percentage of youngsters graduating from American schools who are able to function at a high level -- they are able to write a good essay, write a good letter, do a two-step mathematical problem -- ranges between 3% to 6% depending upon whether you talk about reading, writing, math, or science. And this does not include dropouts; these are our highest performing students on the NAEP assessments. Three to six percent is very far below the percentages anywhere else in the industrial world. We are not even close. We are very far away. If you are far away from where you need to be, then you have to try a different system. It's not that we're so close that all we've got to do is do things a little better, do the same thing but a little better. We are so far away that, first of all, we have to admit it and say it. And second, we've got to encourage radically new ways of doing things because of the distance between where we are and where we need to be.

I hope that, in that effort, teachers and supervisors and parents and school board members are able to come together. Because if we don't, the troubling things that we see now as developments that are happening elsewhere will be here before we know it. Public education is too important to abandon. But to protect it, we need more than effective lobbies -- yes, we need those. We also need a restoration of

confidence, and that will only come through the positive actions that we take.

Thank you very much.

(Applause.)

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