1 Why This Book? Why Now?

If you treat an individual as he is, he will stay as he is, but if you treat him as if he were what he ought to be and could be, he will become what he ought to be and could be.

—Goethe

This is a book about inspirational learning, the sort of learning that alters lives and enables children to be all they can be. We begin with an intriguing historical story. Though this is a story about Europe more than a half century ago, we think it has lessons for us today.

THE MORAL OF THE MAGINOT LINE*

The idea of building the Maginot Line was born out of a persistent and difficult problem. At the end of World War I, the French people had developed a venomous hatred and mistrust of Germany. The First World War had cost the French 1,500,000 men killed, literally an entire generation of its youth. Mourning had become the national dress of the women of France. The foundations of the idea for the Maginot Line were said to be in the cemeteries of France.

The French had been invaded by Germany 15 times in six centuries, and the French were determined that this would not happen again. The traditional route of German invasions had been down the Moselle Valley through the cities of Metz and Nancy into Lorraine and the northeastern corner of France. Led by Andre Maginot, himself a disabled veteran of World War I, the French were passionate to build a "defensive scheme in depth," unlike anything ever built in human history to keep the Germans out.

*Adapted from material in *The Great Wall of France* by Vivian Rowe. © 1961, 1959. by Putnam's Sons, New York.

The French invested half of their national income from 1920 to 1939 in building the "Great Wall of France." The most intelligent, energetic, and committed citizens set to work devising and building a network of fortresses and defensive structures from Belgium to the Alps Mountains along the Rhine River. The most talented young people graduating from the best French schools aspired to work on this great national project. It literally consumed France for a generation.

The wall they built was impressive. There were immense fortresses every one and a quarter miles. The fortresses held 1,200 to 1,500 men and had an array of guns with a 50-degree field of fire that overlapped so that every square inch from 5 feet to 50 miles to the northeast could be shelled with intense fire. Between these larger fortresses, every quarter mile, there were smaller artillery blocks with antitank weapons with a range up to 7 miles. The territory immediately in front of this line of fortifications looked like the back of a porcupine. For the entire length of the Maginot Line, steel girders imbedded in concrete were placed every 2 to 3 feet facing to the northeast to impale tanks or other mechanized forces that might attack. The entire line of fortresses was covered with 12 feet of concrete, and the entire structure, many hundreds of miles long, was connected by underground tunnels so the defenders would never be exposed to enemy fire.

There were huge armies behind this immense line of fortification as well. The British Expeditionary Force was amassed along the French-Belgium border. The French First, Second, Sixth, and Eighth armies were situated behind the Maginot Line from the Alps to the Ardennes forest, which was adjacent to Luxembourg.

The French designers had decided that there was no need to build their wall of fortifications next to the Ardennes because they judged it to be an impenetrable forest. Their military leader, Marshall Petain, had determined that if the Germans massed their troops near the Ardennes, the French and British would catch them in a pincerlike move and destroy them.

So, what happened in May 1940 when Germany invaded France for the 16th time?

The Germans did not do the predictable thing. They did not attack the Maginot Line from the northeast, the direction they had come so often before. They did not mass their troops opposite the Ardennes forest and give Petain time to anticipate an attack. They kept their mechanized forces well back in Germany and then rolled down their autobahn, cut narrow tracks through the Ardennes, and swept in behind the Great Wall of France. There was virtually no fighting, and the guns of the immense French fortresses were never fired. They were all facing the wrong direction.[1]

The story of the Maginot Line is a tragic one because for a generation, the talent, resources, and energies of an entire nation were absolutely wasted. The passion, hard work, creativity, and dedication of the French netted them nothing. That which they most wanted to avoid happened,

and in their preoccupation to avoid this outcome, they undoubtedly lost opportunities for far more positive national outcomes.

We think this story from Europe in the last century may be a metaphor for today's educators in North America. We may be as absorbed with our concerns about our schools' performance as the French were with their scheme to defend their country. Is it possible that, like the Maginot Line, our "guns" in education are facing the wrong direction? Is there any chance that our resources, talents, and efforts are being directed in ways that will prove as unproductive as those of the French before World War II? Equally important, in our present all-consuming efforts, are we missing what our students and society need most? We fear that these are more than possibilities and that the costs of our mistakes may be similarly high.

ARE OUR EDUCATIONAL "GUNS" FACING THE WRONG DIRECTION?

There is no more conscientious and caring group of people in America than educators. With very few exceptions, their dedication and efforts are exemplary. Teachers, however, are being frustrated by well-meaning but naive policymakers and overseers who are steadily moving the direction of instruction away from authentic genuine learning, the sort of learning that brings out the best in students. Below are just a few of the many ways that the energies and efforts of these educators are being aimed in the wrong direction.

The most serious "misaim" in American education is barely on the radar screen of most educational reformers. The most certain way to elevate the level and quality of learning in our nation's classrooms is to provide more time in the teacher day for planning and professional growth. We mistakenly think of the teacher workday as the number of hours and minutes they are actually with children. The approaches to teaching that we are advocating and that inspire students require far more time to create and organize than the 20 to 50 minutes the typical American teacher is given for planning each day. Much of this allocated "planning time" turns out not to be available for lesson planning anyway. It often is spent contacting parents, dealing with discipline issues, and attending necessary meetings with other teachers.

Veteran teachers, who understand what it takes to prepare lessons that interest and excite learners, talk of a two-to-one ratio of time to prepare as compared with actual in-classroom time. They understand that creativity in developing their lessons takes time. The arguments against providing this time center on resources. Schools aren't given the money to provide for teacher planning time. Interestingly, the other nations in the developed world—whose students' achievement is being compared with ours—do

provide this time. Whereas American teachers are with students an average of 25 to 30 hours a week, European and Japanese teachers average only 16 to 20. If our students are going to have lessons that captivate and energize them, schools will have to find the time and opportunities for their teachers to plan collaboratively together, observe and critique one another, and be genuine learners themselves. The research is clear that when teachers are excited learners, planners, and collaborators, their students are more effective and enthusiastic learners.[2]

A BLOATED CURRICULUM

A second, more subtle way our guns in American education are being misdirected is the result of the so-called knowledge explosion. Because the totality of human knowledge is doubling every few months, it becomes imperative that we accept the fact that a good education doesn't mean that students have mastered all or even a significant portion of that knowledge. Right now, the curriculum our teachers are given to teach contains too much content. It is overly broad and therefore superficial. We operate under fear that students will be missing some essential piece of knowledge, and ironically, in trying to cover so much, we end up with a less effective education.

The standards developed in the 1990s were put forth as an answer to this concern. They were intended to define the key ideas and skills from each subject so that the curriculum would focus on a more limited knowledge base and thereby be more manageable. Unfortunately, these standards have been of only limited value in reducing the amount of content teachers are expected to teach. In a study conducted by the Mid-Continent Regional Educational Laboratory in 1996, the essential standards from 15 subject areas were examined. Altogether, there were 245 standards. Reflecting on this number, the authors determined that it would take 21 years of intense instruction to teach these in any systematic way. Unless we plan to keep our K–12 students until they are 25 years old, we have far too much content in our curriculum.[3]

Two negative things happen when teachers feel the pressure to teach too much material. First, they lose sight of broader educational goals, such as preparing students to live effectively or helping them to become good citizens. Learning the major concepts of each discipline doesn't necessarily lead directly to these outcomes. Teachers must teach their subjects with a conscious eye on life preparation goals in order for these to be accomplished. The word *curriculum* reminds us of this. The term comes to us from a Latin verb meaning "to run a race." It conveys the idea that our curriculum should prepare students to run the race of life. In other words, what we learn in school should help us to live effectively in life. Unfortunately, when teachers feel inordinate pressure to cover

burdensome amounts of content, they won't take the time to share messages that could provide insights about life and living. Let me relate a story that illustrates this.

A social studies teacher friend of mine found a news story about a triathlete, Jim McLaren, who at the height of his competitive career suffered a series of accidents that left him paralyzed. This teacher noticed the story because of the attitude this disabled athlete had toward his misfortune. He was certainly disappointed, but not in any way bitter or angry about what had happened to him. Rather, he had come to see his disabilities as a way to encourage others who had suffered disabilities. McLaren became a motivational speaker and shared his "10-90" rule with audiences around the country. He told his listeners that life is 10% what happens to you and 90% how you respond. What a great example of how to maintain a positive attitude while dealing with adversity. My friend planned to use this lesson in a unit on Theodore Roosevelt in an Advanced Placement U.S. History class. It would be appropriate there because Roosevelt had overcome several physical challenges himself. However, my history teacher friend never used the story of Jim McLaren. With all the topics on the syllabus—the muckrakers, the many social reforms of this period, and the events leading to World War I—there was no time to engage his students in a discussion about dealing positively with the challenges of life. A potentially valuable lesson was lost to the perception that the job of a teacher is simply to plow through the course content.

The processes of instruction or pedagogy are also negatively affected when there is too much content in the curriculum. Because most teachers are dutiful and try to do as they are directed, they fall into a mode of instruction that is lecture or teacher centered and that allows them to "cover" material. We now understand how difficult it is for the brain to process into memory material presented this way. There is simply too much, coming too fast. Many students see the futility in this and don't even try to learn. The highly motivated will work to retain the ideas their teacher has conveyed long enough to pass the usual weekly test, but then these "learnings" disappear quickly.

The reason that content coverage is a subtle problem is that students must be involved with rich content if the best they are capable of is to emerge. Focusing on rich content means that ideas and concepts can be explored with enough depth and integrity to promote wonderment or genuine insight. Raising the bar in education should not be construed to mean covering more content. Depth and understanding will serve our students better than simply getting through material, and until we are willing to acknowledge that we are purposefully leaving material uncovered, we will never have the quality of instruction our students need. There is little doubt that less is more when it comes to curriculum.

A TESTING OBSESSION

There is a related but even more destructive misdirection of American education. It involves our policy makers' obsession with standardized testing. Giving students tests in order to hold them, their teachers, and their schools accountable for learning seems like an unassailable way to improve education. If large amounts of public monies are going to be spent on education, the public has a right to know that students are learning. If the tests show that schools are performing below some norm, they should be restructured or closed. The way to improve the learning in our classrooms, so the argument goes, is to hold students, teachers, and schools to high performance standards through mandated yearly testing and to punish under-performance wherever it is exposed.

Unfortunately, like many things in education, meaningful accountability is more sophisticated than this, and oversimplifying the issue is causing more harm to children than good. First, even before the mandated testing of the No Child Left Behind Act, American children were the most tested in the entire world. As a nation, we have typically spent more than a half billion dollars annually on testing our children. Virtually all school districts have had their own procedures for testing their students and thereby providing needed feedback to teachers about areas of the curriculum that need more emphasis. What policy makers want instead are standardized tests that would enable the achievement in buildings and districts to be compared. In this way, those performing above the norm could be identified and praised, while those falling below could be compelled to improve. Again, this sounds like a good idea, but there are some major problems.

In order to do these large-scale comparative assessments, a significant additional amount of time must be allocated to the testing process. This testing time is in addition to the "levels" tests that schools already administer in order to provide specific feedback on the goals of the district. In schools I am familiar with, these state-mandated standardized tests require nearly two weeks of testing to be inserted in an already crowded school calendar. We certainly need tests and other assessments. The question is how they are used. Tests that are diagnostic provide feedback to the learner, the teacher, and parents and help focus and inform the learning process. These tools also help identify holes and weaknesses in school curricula and are therefore important for school improvement purposes. This whole process deserves special attention. That is the focus of Chapter 9.

What about the need to compare schools and districts so we know who is doing a good job and who is not? If all students and schools started their educational processes on an equal footing, such comparisons might make sense. The problem is that they do not. Because property taxes are the primary form of school funding and the disparities in property values in America are enormous, schools in some neighborhoods and communities have far greater resources to work with than others do.

Our students don't start on an equal footing either. There is a great deal of evidence about this. A study by David Berliner provides a sample of it. In 2001, David Berliner reviewed the test results from the Third International Math Science Study (TIMSS). In this study, U.S. eighth graders as a whole placed 18th in science achievement and 19th in mathematics compared with students from 37 other developed nations. In his review, Berliner disaggregated the national data and showed the remarkable influence of socioeconomic factors on our students' performance. As one example, he cites the comparison of two groups of students from the state of Illinois. Apparently, 20 of the most affluent school districts in suburban Chicago asked to be considered as a separate nation in the TIMSS competition. Their scores were higher in both mathematics and science than those of any of the other nations. On the other hand, Berliner examined the scores of the students of East St. Louis, Illinois, one of the poorest communities in our nation, and this community showed a completely different result. These students, who live in dire poverty, finished lower in math and science than any of the 37 nations.[4] As Kenneth Wesson writes, "It is widely acknowledged by test-development experts that a higher socio-economic background gives students a positive boost in standardized-test achievement."[5]

However unfair the results of these tests may be, they have a strong influence on how the public views its schools. Property values go up in neighborhoods served by so-called 'high-performing' schools and down in those where achievement results are lower, further intensifying the problem. In some parts of our nation, schools are ordered to close because their test scores are not high enough. Consider the pressure there must be on students as they face these exams! If they don't do well, their school will be punished by losing state resources or will even be closed. Is it any wonder this process is referred to as "high-stakes testing"? Predictably, the schools being closed are in the poorest urban areas. The students from these discontinued schools are then wrenched out of their familiar surroundings and reassigned to a supposedly "higher-functioning" school that simply has more resources or a more affluent clientele. How likely is it that such a reassignment will enable these students to be better learners?

There is still another issue with high-stakes standardized tests. Because they are designed to be given to large numbers of students, they must be able to be machine scored and thus have a multiple-choice or single-correct-answer format. This dictates the sorts of questions that can be asked and limits the level of sophistication of thinking that can be measured. There is virtually no way to use these tests to assess the complex higher-order abilities that students need in order to be effective participants in the world they will live in. We can foresee that, in the world, they will have to be able to evaluate ideas, think creatively, solve problems, work well in teams, and have a variety of other sophisticated skills—none of which are measurable with these standardized tests.

The accumulating effects of these high-stakes tests are overwhelmingly negative. Audry Amrein reports that students' intrinsic motivation to learn diminishes because of the influence of these tests. Teachers are using fewer hands-on and active learning strategies and more boring drill activities. Students are less likely to engage in critical thinking because so little is called for in these tests. Nationally, dropout rates are climbing, and researchers attribute this trend to these tests. There is evidence that these tests have led to a narrowing of the curriculum as art, music, creative writing, physical education, and even recess are reduced or eliminated in order to focus more on the subjects that are tested. Even within the areas of the curriculum that are tested, schools are not teaching subareas if they are unlikely to appear on the test. If, for example, quadratic equations are not anticipated on a state's math test, quadratics won't be taught as a part of the algebra curriculum.[6]

CULTIVATING THE LATENT ABILITY OF EVERY STUDENT

The intention of this book is not primarily to focus on the problems and failures of current educational practice. We only mention these issues because they have turned our attention and resources away from what our focus should be. While we have been caught up in trying to cover content and prepare for standardized tests, we have moved away from the development of the talent in each child. Cultivating the latent ability of every student is the central task of all education. The very meaning of the Latin verb *educare*, from which we derive our word *education*, conveys this ideal. *Educare* means "to draw out" as in drawing out talent or ability. The fortunes of our society depend on the degree to which educators are able to do this. Let's look at another story that illustrates how we might orient our energies, resources, and classrooms.

What follows is a story about a real 14-year-old student. As you read, consider how you would develop this student's latent ability if you were one of his teachers.

W.C. is an ugly child. His head is too large for his slight frame. His stomach protrudes. He's sickly, weak, and uncoordinated. He misses a lot of school and is bullied by other kids when he is there.

W.C. is a serious discipline problem. He is written up for some class disturbance every week. He is always late for class. When he does get there, he doesn't bring his texts or any materials.

Virtually every teacher despairs about having him in class. He hates math and is the lowest-performing student in foreign language class. He sees no point in studying English and usually sleeps in class. This is a remedial English class and he is failing

because he doesn't turn in any work. He is thought to have some ability in history, but his teacher dislikes him intensely because W.C. contradicts him and argues with him about everything. W.C. even hates PE, although he would like martial arts, if that were offered, because he fights all the time.

He does have hobbies. He likes to read, especially about wars and famous people in history. He sometimes memorizes lines from plays. He is fairly artistic and draws well.

On campus, the most often used terms to describe this student are *hopeless* and *dismal*. Assuredly, he would have been kicked out of school except for the fact that it would bring a lot of negative publicity to the school because of his family. His father is a prominent political figure. Neither parent pays much attention to him.[7]

Make no mistake: W.C. is going to make your job more difficult. He will take your time and attention from other students who need your help, and no matter how hard you try, he is not going to pass the mandated achievement tests that will be given in the spring. If your school does not show the improvement on these tests that is prescribed by the No Child Left Behind legislation, the extra time you spent with W.C. might jeopardize your school. You must be realistic.

So, how did W.C.'s teachers deal with him?

Fortunately, W.C. lived in a time and place where there were no high-stakes standardized tests, but there was plenty of pressure on his teachers anyway because the school he attended was a prestigious school. After several years of disruptive behavior and failure, he was assigned to three teachers who, fortunately, had a life-changing influence on him.

The first teacher, whose name was Moriarity, taught W.C. fencing, but his instruction went far beyond the skills of handling a foil. W.C. exhibited few physical attributes to attract this teacher's attention. Moriarity wrote of W.C. that he was "weak, uncoordinated with the fragile hands of a girl." It was obvious to Moriarity that W.C. would never be much of a fencer no matter how hard he worked with him. Despite W.C.'s physical failings and lack of aptitude, Moriarity invited this 14-year-old to his home in the evenings, where the two of them talked about literature and history and practical things about life and living.

The second teacher to influence W.C. was C.H.P. Mayo, a math teacher. W.C. later said of Mayo, "No credit is too great for this man." W.C. believed that no matter how hard he would try, he would never succeed at math. Yet in the way that Mayo taught, W.C. came to see that "mathematics was not a hopeless bog of nonsense. There were meanings and rhythms behind the comical hieroglyphics." We know nothing about the techniques Mr. Mayo used, but he was able to make his subject comprehensible to a student who was certain he could not learn it. In doing so, he gave W.C. hope. Without hope, a student won't invest the effort to try to learn.

The third teacher who had a powerful influence on W.C. was a new teacher at his school, Robert Somervell. Probably because he was a new teacher, Somervell was given the assignment of teaching remedial English. W.C., who had already failed this course twice before, was taking it again because he was considered too much of a "dolt" to learn the regular curriculum of Latin or Greek. Remarkably, Somervell was enthusiastic about teaching a remedial course to learners who had already failed the subject. W.C. later wrote of Somervell, "His enthusiasm was infectious. He just knew how to do it. He taught as no one else has ever taught it." He apparently drilled them regularly, but he did so in a way that appealed to the "playful instinct of every boy." W.C. continued to be a student of Somervell's for three terms, and under this masterful teacher he developed a fascination with words and a deep interest in writing. Though it is not what he is most famous for, W.C. would later write more than 50 highly respected and influential books.[8]

LIFE-ALTERING TEACHERS

It would be difficult to overstate the importance of what these three teachers did for W.C. Certainly our world would be different today if they had not helped him see the person he was capable of becoming. At the time that they encountered him, he was exhibiting very little talent or motivation. According to his biographer, William Manchester, with the exception of these three instructors, the remainder of his masters described him as "unmotivated," "willfully troublesome," and "intellectually inept." Yet this "dismal" student, who attributes his turnaround to these three teachers, went on to become a brilliant orator, award-winning author, and arguably the finest statesman of the twentieth century. W.C. is none other than Winston Churchill, a dominant figure of his time.

Not every unmotivated, nonperforming student has the potential to be another Winston Churchill, but there have been countless students with remarkable talent whose teachers had no idea how to promote their talent. Albert Einstein's teachers described him as a "dull student." Walt Disney was described as "slow." He never experienced success in school. The list includes renowned anthropologist Dr. Mary Leakey, codiscoverer of the Zinjanthropus fossil remains in East Africa, and George Marshall, author of the Marshall Plan, which revived Europe after World War II. Film director Steven Spielberg was not considered a student with ability. The list of those who have been written off by their teachers includes astounding numbers of statesmen, astronauts, and college professors.

Churchill too was written off by the educators at Eton College. He graduated last in his class. The three special teachers he encountered there, however, gave him the greatest gift a teacher can give. They helped him

develop a vision of his own greatness. Pulias explained this gift this way: "The individual cannot or will not take advantage of opportunity, however physically available it may be, unless he is brought to believe that he has possibilities for growth and that this opportunity is a door for him."[9] How does a teacher inspire the development of this vision? How, like Churchill's teachers, can we influence students to believe that they can grow and accomplish important things?

Teachers hold the power to unleash a psychological force that brings out the best in a child. The process apparently begins with the perceptions they have of their students. Arthur Combs and others have reported a quarter century of research about how the perceptions of individuals in the helping professions affected their clients. The results were the same across all helping professions—teachers, counselors, ministers, nurses, and the like. Those who were effective differed from those who were not effective in the degree to which they held positive perceptions of their clients.[10] Good teachers, as an example, may be clearly identified by the fact that they view their students as "able" rather than "unable," "worthy" rather than "unworthy," "dependable" rather than "undependable." Subtly or not so subtly, they give students messages that communicate these perceptions.

- "You have such a wonderful way with words, Justin. Look at the way you phrased this idea . . . Since the beginning of the year I've believed you could be a very good writer."
- "This is a very perceptive comment, Jen. You are showing a lot of maturity in your thinking. Let me explain why I think this is so good . . ."
- "This is an impressive part of your project, Kari! You are asking the kinds of questions a scientist would be concerned about. I hope you are considering taking more science courses."

Most students will respond with stronger efforts when they receive specific positive messages such as these from adults who they respect. These teachers are building on their students' strengths by making specific comments on elements of work that are strong or show promise. It doesn't mean that they can't find weakness as well, but correcting behavior must be done with extreme care. Students of any age, in fact virtually all human beings, are sensitive to criticism. Even gently offered suggestions can overshadow what a teacher wanted to be a positive affirmation to a student. Building on strengths may mean overlooking some errors or even needed improvements. These comments may be more appropriate at a later point. The message that so many students need to hear isn't that this or the other thing is wrong but rather, "You are capable and doing particular things really well."

THE CLASSROOM AS A COMMUNITY

Positive perceptions and affirming messages are certainly not the whole of the process of encouraging potential. Affirmations are rather a step in developing an atmosphere of community in a classroom. Part of the positive support system young people need must come from their peers, but it is up to the teacher to develop that peer support. Learning occurs more readily when students feel their classroom is a partnership.

They perceive "It's the teacher and us against the curriculum," rather than "It's me by myself against the teacher and the curriculum." This spirit of community is forwarded through strategies like cooperative or team learning where students study together and teach each other. The highest correlate with student achievement involves a methodology where students are explaining the material to be learned to fellow students.

In research done in the 1990s, a researcher described the teachers who get special results from their students as being "intuitive." They have an almost inexplicable ability to become one with their students.[11] They have a deeper sense of purpose and commitment to building positive relationships with their students than the norm. We see this with Churchill's fencing teacher, who took a personal interest in Winston by spending time with him and even inviting him to his home.

Relationship building is a delicate matter and will look different in every classroom. It might be as simple as making a point to remember birthdays or taking time to attend a student's extracurricular activity and making mention of their contribution. Some teachers make quick calls home when a child has accomplished something special. These efforts take time and thought because they are not mechanical or formulaic. They carry risks as well. It is easy to cross the line and try too hard to be a "buddy" with one's students. But as David Berliner commented, "the expert teacher's edge is caring," and caring will work magic. Students who perceive that their teachers genuinely care work hard to please them.[12]

We all need someone in our corner. We all need someone who genuinely believes in us. When we have someone who is a supporter and cheerleader and who demonstrates their support by investing in us, it becomes easier for us to believe in ourselves. A large percentage of young people come to school with no such support and no vision of who they could become. A conference speaker, whose name I have long since lost, put it this way: "So many children thrash through the dense jungles of life alone and with only a child's-sized machete." Who will come alongside and help them clear their path if not a teacher? Along with their parents, their teachers are in the best position to help them develop a vision for who they are capable of becoming.

UNDERSTANDING IS A KEY TO HOPE

Churchill's math teacher reminds us of another essential quality of teachers who maximize their students' potential. They know how to take abstract or difficult concepts understandable. Churchill came into Mayo's classroom believing that mathematics was nonsensical and that no matter how hard he tried, he would not be able to understand it. Yet he did succeed in that class. Mayo apparently invested the effort and creativity to find ways to connect the ideas from his curriculum to the lives of his students and in doing so made the incomprehensible comprehensible. It is easy to observe this happening in the classroom but so hard to actually do it. When it happens and the light of understanding goes on, hope replaces hopelessness, and hope enables students to persevere.

A PLAYFUL CLASSROOM

Somervell's playfulness and "infectious enthusiasm" uncover yet another key to unlocking potential. Though a new teacher, teaching a remedial subject, Somervell made it a joyful experience for Churchill. He was playful. He made learning fun**.** How does a teacher do that? We sometimes mistake playfulness as simply "fooling around." There are certainly moments for lighthearted behavior that might be described as fooling around, but playful classrooms can be wonderfully more purposeful and engaging than that. Dale Mann of Columbia University calls play "the engine of real learning."[13] My sixth grade teacher taught me the truth of this.

Mrs. Montgomery was my social studies teacher at Central School in Glencoe, Illinois. I owe my decision to become a teacher to her because we had so much fun in her classroom. When we studied the Ancient Egyptians, we built scale models of the pyramids with sugar cubes. We read stories about Egyptian mythology and investigated mysterious things about the Pharaohs. We wrote an original play about daily life in Egyptian society. We even got to share our play with other sixth-grade classes. We were totally absorbed in these projects and could hardly contain ourselves waiting for social studies time each day. We perceived them as serious activities because we knew we were learning so much, but we also felt like they were play. Though Mrs. Montgomery had little interest in compelling us to memorize things that we were studying, I remember so much about these projects decades later.

I completed many social studies classes after sixth grade where all I was called upon to do was sit, listen, and give back what I heard on tests. Sometimes these teachers tried to be entertaining, but my only memories of these classes are that I was painfully bored.

Somervell and Mrs. Montgomery understood a simple but profound dimension of awakening student potential. When students are invited by their teacher to be involved in inventive, expansive, self-directed activities, learning becomes play. Learners become motivated, absorbed, and even enthralled. When there is a sense of mystery or intrigue, the absorption is even better, and serious learning results.

This is a book for teachers, but it is important to note that teachers and other school personnel do not control all the variables that lead to the success of students in academic situations. Genetics and home environment are obvious in their role in this process. In a classic study of student achievement done over two decades, the Illinois Valedictorian Project identified the key factors that influenced the outstanding academic performance of high school valedictorians in the State of Illinois.[14] These most successful students knew from a young age that they were bright and gifted in school-related abilities. Usually, however, they did not perceive themselves to be the brightest in their age group. They knew how to earn good grades. They knew themselves to be "school smart."

Overwhelmingly, these valedictorians grew up in two-parent families. Out of 81 of these superior students in Terry Denny's study, only 3 lived with divorced or single parents. In virtually every case, there was at least one parent at home who paid close attention to school achievement, set high standards, and communicated the importance of being successful in school to the student.

Teachers have no control over either the inherent ability of the students who enter their classrooms or the degree of support and nurturance that they have received at home. Teachers also have little influence in another support factor that came out of the valedictorian study: the majority of these students had strong religious involvement, which was another source of support and which served as a buffer against negative extracurricular activities, including partying.

Terry Denny's study did bring to light the importance of teachers and the factors they do control. Every one of the valedictorians in his study identified one or a few teachers who were instrumental in their success. Many of these students remembered special attention and praise from elementary teachers. All identified high school teachers who challenged them, for whom they had worked hard, and whom they wanted especially to please. Most could name teachers who taught them to love their subject and made them excited to learn. Overwhelmingly, these inspirational teachers helped them know it was acceptable to be a good student and to be proud of their successes.

This is a book about this sort of teaching—teaching that inspires. It's a book about learning that brings the best out of learners by helping them see who they could become. It's a book about learning that motivates, absorbs, and sometimes even enthralls the learner. It's a book about joy—the joy of learning. In American education today, teachers are not being praised or rewarded for teaching that inspires students and helps them

understand their capabilities. Sadly, teachers are only being commended for raising test scores. Like the French before World War II, our guns are pointed in the wrong direction.

In writing a book about inspirational, joyful learning, we have advantages today that haven't been available very long. Because of breakthroughs in neuroimaging technology in the past decade, we have a far better understanding of how the human brain learns and retains learning. If our instruction can utilize the tremendous power of the brain operating in its most natural and effective mode, learning tasks are dramatically easier. Chapter 2 investigates this natural learning process. Chapter 3 focuses on instruction that makes learning playful. We now understand the power of play in the classroom.

Part II has four chapters devoted to practical teaching strategies that work in concert with the brain's natural learning processes to provide teachers with the means to develop student potential. Each chapter focuses on a particular developmental level of learner from early elementary through postsecondary.

Part III asks two key questions. First, if our goal is to develop student potential, how might we use assessments skillfully and sensitively to promote that goal? Second, how might we educate teachers, both preservice and inservice, to have the unique skills to be promoters of student potential?

NOTES

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