Motivating Today's Students: The Same Old Stuff Just Doesn't Work.

In this issue, two teachers and a principal offer their perspective on classroom practices that can enhance students' learning experiences and keep them motivated and engaged. Ted Nussbaum, a primary teacher at a Eugene, Oregon, school serving primarily at-risk students, shows his enthusiasm and excitement at his students' learning progress, sets high learning goals, lets students exercise choice and responsibility, emphasizes the positive, uses cooperative learning, provides encouragement, and views discipline as a teaching opportunity. Cindy Boyd, a high school math teacher in Abilene, Texas, creates a risk-taking atmosphere; plans activity-based, student-centered lessons; uses auxiliary items to illustrate concepts; employs alternative assessment; quells math anxiety; and values attitude, positive feedback, real-life applications, lifelong learning, and caring relationships. Howard Pittler, principal of a Wichita, Kansas, magnet school, relies on authentic tasks, genuine caring, staff camaraderie, high standards and individualized student goals, lifelong learning, cooperative learning, and student-led conferences to engage students. (MLH)
MOTIVATING TODAY'S STUDENTS

THE SAME OLD STUFF JUST DOESN'T WORK

by Linda Lumsden

"Intellectual growth, intellectual development, is stimulated by how we teach. . . . All educators would agree that enthusiasm, our own awe, our curiosity, our own personalities interact in a very fundamental way when we teach other people."

—Jeanette Norden, Professor
Vanderbilt Medical School

What may have held students' attention forty years ago is not necessarily going to keep today's students interested and engaged in classroom learning. TV, videos, computers, and other technological and cultural changes have altered our world significantly and irrevocably. As Cindy Boyd, one of the teachers profiled below, noted, "It's got to be different right now to get their attention. The same old stuff isn't going to work. Worksheets and examples on the board—that just doesn't cut it."

In this issue, two teachers and a principal offer their perspective on classroom practices that can enhance students' learning experiences and further the goal of keeping students motivated and engaged.

TED NUSSBAUM
Teacher, Whiteaker Elementary School

Ted Nussbaum is a primary teacher whose ideas about student motivation rose from his experience "in the trenches." Nussbaum has been teaching for ten years, eight of those at Whiteaker Elementary in Eugene, Oregon, a school with one of the largest populations of at-risk students in the state. Currently, he teaches in a first/second grade combination classroom. Nussbaum pinpointed many elements that enrich students' involvement and engagement in the classroom and school community.

Enthusiasm and Excitement. "One thing I get excited about is to see kids learning and I let them know I'm excited about it. I don't hide my excitement when kids are catching on. I tell the kids, 'There's always more things to learn and my goal is to teach you to be excited learners.'" Teachers, he reflects, must
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Portraits of Success, a resource for teachers and administrators who participate in the program, provides glimpses into the work of researchers and educators who are dedicated to the success of the nation's school children.

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find ways to feed their own sense of enthusiasm and excitement, because their attitudes about teaching and learning trickle down to their students.

High Expectations. Nussbaum is a firm believer in setting high goals for all students. He tries to communicate to the students that “it is my expectation that you are going to accomplish the goals I set before you.” He contends that “when you have high goals, the kids tend to do better.” On the other hand, the kids will often adjust their performance downward to meet your low expectations.

Choice. Nussbaum goes out of his way to let kids exercise choice in the classroom. When handing out math worksheets, he tells students they can choose to work either all the even-numbered problems or all the odd-numbered problems. Then he says, “If you are a really hard worker, you can go back and do the other half of the problems.” When he uses this approach, “changing it into a challenge instead of a command,” about 90 percent of the students usually opt to do the other half of the problems, thereby identifying themselves as “really hard workers.”

Responsibility. Although students are motivated by the opportunity to exercise choice, Nussbaum balances this freedom by emphasizing responsibility as well. “When they have responsibility, it’s amazing how much more motivated they are.” Nussbaum selects a student for the day, and that individual has the responsibility of taking the attendance form to the office and being line leader.

Kids come to enjoy a responsibility such as holding the classroom door open for their classmates because Nussbaum presents it as a privilege, a respectful act, rather than a burden.

Emphasizing the Positive. When I grade papers, I put how many problems a student got right out of the total number possible, for example, 43 out of 50, instead of minus 7. And then when students have accomplished their goal by going back and correcting the problems they initially got wrong, I put an OK and then put 50 out of 50 on their paper. There’s something about them knowing they’ve accomplished everything they need to accomplish that really boosts their morale. If a student complains, ‘Man, I missed 7!’ I try to turn it around and say, ‘43 out of 50, that’s a lot; you did a good job!’

Cooperative Learning. Students need to feel a sense of responsibility and accountability toward their peers rather than just toward the teacher, he said.
Nussbaum exercises care when composing groups. He sees to it that the slightly more mature second-graders in his first/second-grade classroom are fairly evenly dispersed among the groups, attempts to place a student with leadership ability in each group, and so forth.

Nussbaum said students tend to motivate one another to accomplish the group goal. Each student has an individual challenge or a task to perform, without which the group goal cannot be achieved.

**Encouragement.** When a student is having an awful day, Nussbaum looks for one small act that the student does that is positive. If a child who has been acting out spontaneously stops and picks up papers on the floor by his table, Nussbaum would give him a “Gotcha Award.” Being acknowledged for doing a small positive act in the midst of a “rotten day” is sometimes enough to help the student alter his attitude and get back on track.

Nussbaum is demonstrative in affirming students. He sings to students on their birthday, leads class cheers, and puts up charts that record when they lose their teeth. A cheer is done for the kid for the Day, and special cheers are given to class members who may be discouraged or confronting particularly difficult circumstances.

“Sometimes if a kid has had a rough day or a rough night, I’ll say, ‘Is there anybody here who needs us to applaud for you? Come on up front,’ and they come up and we just clap for them. If you’ve ever had that done for you, it may feel a little awkward but it reaffirms that they are an important person and that they are enjoyed and loved by the people in the class.”

Another affirming device Nussbaum uses is “marbles in the jar.” When the class as a whole is working quietly and focusing on what they are supposed to be doing, he will drop a marble in a glass baby food jar. “Basically I’ve trained the kids to know that when they hear the marble dropping into the jar, they should keep on working but recognize that the sound of the dropping marble is the equivalent of a pat on the back.” When the jar is full of marbles, the class is entitled to a special activity. Typically class members vote on what to do—watch a movie with popcorn, have free time in the classroom, play a group game, or pursue some other mutually selected option.

“I’ve trained the kids to know that when they hear the marble dropping into the jar, they should keep on working but recognize that the sound of the dropping marble is the equivalent of a pat on the back.”

**Discipline.** For a classroom to function well, with students engaged, a teacher must handle disruptive behavior with skill. Nussbaum said it helps him to be prepared, to have a sense of how he is going to intervene if a student gets off track behaviorally. “When a child does something that would normally make me angry, I turn it into an opportunity to teach that child.”

In a nutshell, concluded Nussbaum, “When you have fun yourself, the kids are going to have fun. When you are motivated yourself, they are going to become motivated.”

**CINDY BOYD**

**Teacher, Abilene High School**

As part of an informal process she uses to evaluate and refine her teaching, Cindy Boyd periodically asks her students for feedback. One of the questions she poses is: “What have I done that has helped you the most?” Last year one student wrote, “You didn’t teach me a thing! I had to learn to teach myself.”

Although this student may have intended his comment as a criticism, Boyd received it as a high compliment. After reading it, she thought to herself, slightly amused, “Well, that’s exactly what I meant to do!” Boyd speculated that this student was probably “so used to being spoon fed that he was real mad about having to learn to think” in her classroom.

A high school math teacher at Abilene High in Abilene, Texas, Boyd is an innovative educator with a teaching career that spans twenty-three years. She was recently selected from among 1,800 teachers as
the Walt Disney/McDonald's National Mathematics Teacher of the Year for 1995. Among other professional honors, she has been a three-time recipient of the Texas Presidential Award.

Although many have tried to lure her out of the classroom with lucrative job offers (some at triple her current salary), Boyd has elected to remain in the classroom out of a deep-seated sense of mission and dedication. Her goal is to improve the teaching of mathematics, to share classroom innovation, and to give students a positive view of teaching and learning.

Boyd characterizes her room as "a mathematical community where the students experience ownership of their learning and that of their partners as they strive to become life-long learners."

She is convinced that "how we teach is as important as what we teach." Guided by her passionately held convictions about teaching and learning, Boyd uses a variety of nontraditional formats in her largely self-created curriculum to bring to life a wide range of mathematical concepts and theorems in a classroom where her own sense of caring and enthusiasm are cornerstones. "It's got to be different right now to get their attention. The same old stuff isn't going to work. Worksheets and examples on the board—that just doesn't cut it."

She said, "My students have modeled 3-D shapes with Play-doh, folded paper to demonstrate theorems, fashioned geometric shapes with rubber bands on pads, built patterns with toothpicks, formed polyhedrons with straws, used computers and graphing calculators, graphed with colored magnets and cookie sheets, modeled algebraic equations with algebra tiles, and solidified ideas with popsicle sticks and wing nuts. My pupils sing and manipulate their way through concept after concept to what I feel is a better understanding of mathematics."

Describing the process she engages in to decide how to present material, Boyd said, "What I try to do is to look at a lesson, look at what the book has to offer, and ask myself, 'Do I really want to teach it this way?' And if I don't—and most of the time I don't—if I think I have a better idea, then I try to go from there."

Sometimes she starts out with a real-world application of a particular mathematical process. Whatever her particular approach, however, she actively involves the students rather than merely attempting to "download" information from herself to her students: "Most of the time we go through a discovery process. I play the devil's advocate so they're kind of teaching me, explaining the concept to me. First we summarize our findings in our own words, we talk about the idea, about what we discovered, until it's pretty well crystallized. Then we go through it in a skit where it is further crystallized, and then in a song, where we play with it and have fun with it. And then we may follow that with a card game or a worksheet to give them some practice and increase their skill."

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explaning the concept to me."

Boyd's relationship with her students and with her subject matter cannot be distilled down to a simple "formula" that can be duplicated in schools across the country. Much would be lost and cheapened in the translation process. However, the ten components mentioned below, all integral to Boyd's approach to teaching, may serve as a jumping off point and an inspiration for other educators who want to enliven their teaching and increase student motivation and engagement.

1. **Atmosphere.** Boyd strives to create "a physical and an emotional climate that encourages risk-taking and invites exploration." The physical appearance of her classroom probably more closely resembles a typical primary classroom rather than the traditionally bland secondary school classroom. Large honey-combed tissue apples, transparent globes, and models formed from coat hangers dangle from the ceiling. Manipulatives of all kinds line the shelves, offering an open invitation to students to "investigate, question, hypothesize, explore, and discover."

   Brightly colored signs grace the walls, some reminding students of mathematical definitions, postulates, and theorems, others issuing challenges and conveying high expectations. For example, one sign reads, "I want to be the best teacher you've ever had. I expect you to be the best students I have ever had."
Boyd concentrates on creating an atmosphere characterized by trust, support, cooperation, and high expectations. She notes, “Concern that my students learn math is closely linked to a concern that my students have a healthy self-image. Students and I celebrate math daily. We talk about and laugh about mathematical relationships as we flex our mental muscles through concept development, problem-solving, and higher order thinking.”

2. Activities. Boyd is not one to stand in the front of the classroom and drone on endlessly to a bunch of glassy-eyed pupils. She views students not as passive recipients of information but as active participants in the learning process. “I have always believed that good teaching actively involves students.” Over the years, Boyd has learned that “activity-based, student-centered lessons pique and hold the interest of all students.”

When planning lessons, she tries to develop ways of presenting the material through a variety of sensory modalities—visual, auditory, kinesthetic, and so forth—to reach the whole range of learning styles represented in her classroom and to solidify in students’ minds the concept she is trying to convey. By essentially teaching the same thing in several different ways, she leaves students with a deeper, more comprehensive, understanding of the material.

She supplements whole-class instruction with cooperative learning. When students work together in small groups or in pairs, they “help each other learn and think and reason” in a way that cannot be done during whole-class instruction.

3. Use of Auxiliary Items. “Almost any conceivable item can become an auxiliary item if it helps students to visualize the mathematics or to concretely represent a concept.” One series of hands-on lessons involves Play-doh. For example, students form a cone then use string to make two perpendicular slices and divide the cone into four congruent parts. This enables them to actually see the right triangle made of the height, slant height, and radius. Similar exercises with Play-doh help them more easily grasp mathematical concepts related to cubes, pyramids, and spheres.

4. Alternative Assessment. As Boyd notes, “Teaching differently requires testing differently!” Assessment is woven into the fabric of Boyd’s courses; it is considered an integral part of the instructional process. For example, two mathematical board games she developed serve as one alternative assessment tool that generates information about students’ working knowledge of mathematical concepts.

Boyd poetically refers to attitude as “the paintbrush of the soul.” “A positive attitude and a willingness to work can overcome almost any deficiency.”

She said that students also engage in self-evaluation when they make predictions and hypotheses about graphs and then use a graphing calculator to see if their expectations are borne out.

5. Anxiety Reduction. Boyd does her best to quell math anxiety by being sensitive to students’ learning styles, giving assignments that have real-world applications, having students work collaboratively and use hands-on activities, showing students math can be fun, and, perhaps most important, facilitating solid understanding of mathematical concepts. When students are provided with ample opportunities to practice, and thereby solidify what they are learning, they strengthen their working knowledge of mathematics, which “dispels worry and fear.”

6. Attitude. Boyd poetically refers to attitude as “the paintbrush of the soul.” She notes that “a positive attitude and a willingness to work can overcome almost any deficiency.” She attempts to model not only an upbeat outlook but also such qualities as persistence, problem-solving, encouragement, and cooperation.

7. Applause. Boyd focuses on what her students are doing right and praises them for that. She also creates a climate where students become “generally excited by the success of their peers.” And she believes peer-based positive feedback is perhaps the most meaningful and inspirational form of “applause” for students.

8. Applications to Everyday Life. Boyd shuns teaching math compartmentally; instead, she integrates it with science, music, language arts, social studies, and other disciplines, which helps students view mathematics as having greater relevance to their
lives. “Cross-curricular emphasis gives new meaning to math concepts” and better equips students for life in the outside world.

9. Animated Assimilation, or Life-Long Learning. A central goal of Boyd’s is to nurture in her students “a love of learning that will last for the rest of their lives!” She models enthusiasm for life and learning on a daily basis and maintains an attitude of inquiry and interest. In the aftermath of a close brush with death in 1985, Boyd came to the conclusion that she had been given a second chance at life “to make a difference in mathematics education by teaching students differently and by sharing my insights with my peer teachers and with students.”

10. Association with Each Other and with Mathematics. Relationships are often overlooked in teachers’ earnest quest to fill students with specific information. Learning does not occur in a vacuum, but in a context. When elements such as caring, support, creativity, and respect characterize the relational context, both among students themselves and between teachers and students, the process of learning is stimulated rather than stunted.

The most effective way to effect change in education, believes Boyd, is for innovative teachers to remain in the system to make it better. She takes heart in knowing that some of her students will choose to become teachers who will teach differently as a result of being taught differently, and they, in turn, will inspire others, thereby passing the torch to yet another generation of learners.

HOWARD PITLER
Principal, L’Ouverture Computer Technology Magnet

The sign above his office door reads: “Principal Learner.” It captures one central belief of Howard Pitler, principal of L’Ouverture Computer Technology Magnet: There’s always more to learn. Conveying to students that learning is a never-ending, exciting quest underlies the efforts made by Pitler and the staff at L’Ouverture to keep students motivated and to continually expand their learning horizons.

L’Ouverture, a racially diverse elementary school in the Wichita, Kansas, inner city, has recently received many accolades. The school won the Kansas Better Schools Award, was selected as an Outstanding Focus School by the Kansas Association of Elementary Principals, was named a “Models for Success School” by Computer Curriculum Corporation, was identified by Redbook Magazine as One of America’s Best Schools in the category of “overall excellence,” and is one of only twenty-five schools in North and South America to be named an Apple Distinguished Program.

In the past few months, the school has also been featured in both the Harvard Education Journal and People magazine. And to top it off, Pitler was just named Kansas Elementary Principal of the Year by the Kansas Association of Elementary Principals.

As the person at the helm of this innovative, inspirational school, Pitler offered his perspective on what it takes to keep students interested and engaged in learning.

Authentic Tasks. The foremost step educators can take is to assign students “authentic tasks rather than made-up coursework.” Pitler offered an up-to-the-minute example. “Two of my fifth-graders and I just got back into the building after going to the United Urban Ministry Food Bank. We were talking with them about developing a home page for the organization so that they would have more visibility
in the community and be able to draw on resources they don’t currently have available. They bought the idea and now those two fifth-grade girls are back in their classroom designing the home page. [Earlier, the school developed a home page for the Wichita Symphony, and it continues to maintain the web site for the symphony.] Monday morning they have to present it to the executive director and the board of the Urban Ministry.”

“We expect kids to perform—we don’t see that as an option. If you’re here, your job while you’re here is to learn.”

As part of the project, the two fifth-grade students will also evaluate and rewrite some of the text for brochures produced by the Urban Ministry.

What’s another example of an authentic task? Pitler arranged for a student to interview a candidate for Congress who was scheduled to visit the school. The interview will be broadcast on the live daily TV show that is produced at L’Ouverture.

Another student will interview the governor of Kansas in a few weeks. When Pitler approached the student he had in mind to conduct the interview, she took the assignment in stride. “She didn’t say, ‘I can’t do that!’ or ‘You’ve got to be kidding!’ She wasn’t intimidated by interviewing the governor or by doing it in front of 400 people.”

The process of preparing for and conducting interviews helps students strengthen their research skills and their written and oral communication skills. At the same time, experiences like this help to build students’ confidence.

Genuine Caring. Authentic assignments build students’ commitment to the work they are asked to do. The second thing the school staff can do to keep kids motivated is to genuinely and openly care about them. At Pitler’s school, this message of caring is expressed directly, both verbally and through physical touch.

Although he expressed concern that this crucial element may sound “trite or trivial,” Pitler said, “Simply put, we love our kids. We are a high touch environment; that’s in our mission statement. We hug kids and when we talk to them we put a hand on their shoulder. We know them by name, we know their families by name, and we make sure that they know we truly care about them. It’s much easier to motivate them when they actually think you like them.”

Staff Quality and Camaraderie. L’Ouverture has “exceptionally good teachers who all care about the kids.” Pitler noted that the teachers consistently go “above and beyond” the requirements of their positions, regularly attending school-related events for which they do not receive financial compensation. “That’s what our folks are like,” he said.

Staff members—who are “very close knit”—help one another remain motivated. For themselves as well as for their students, these teachers have “great expectations.” If the level of performance of any single staff member starts to falter, others will typically surround them with support and assistance.

High Standards and Individualized Student Goals. At L’Ouverture, the assumption is that students will maximize their potential. As Pitler said, “We expect kids to perform—we don’t see that as an option. If you’re here, your job while you’re here is to learn.” However, Pitler noted that instruction must be tailored to a child’s individual level of performance. All students at L’Ouverture have an IEP—individualized educational plan—that identifies specific goals for performance based on the student’s current level of functioning.

Pitler said, “We’ve got second-graders who are reading at the seventh-grade level, so we work with them at that level. And we’ve got fifth-graders who are working at a third-grade level and we work with them at that level. But everybody needs to demonstrate growth. whether you are a gifted child who is five grades above grade level or you’re a child working two grades below grade level.”

Lifelong Learning. A teachable, aspiring spirit and an inquisitive mind are not qualities cultivated only in the students, however. Teachers do not put themselves up on a pedestal nor do they strive to be seen as omniscient. At L’Ouverture, learning is not bounded by formal roles and positions. “We all model the fact that there’s no one in this building that can possibly know everything they need to know.”

Teachers view students as resources, not as empty vessels awaiting knowledge to be imparted from on
high. Most staff members feel comfortable asking students to help them fill in some of their own learning gaps. For example, teachers may call upon students to share their expertise in web site design and construction.

**Cooperative Learning and Teamwork.** Collaboration is another hallmark of life at L'ouverture, and one that motivates and energizes those who work together. Through their teamwork, kids come away with a greater appreciation of one another's strengths and talents. "What the kids learn," said Pitter, "is that even though some kids are really good in math and other kids are really good in language arts, everybody is really good in some area."

Everyone contributes to group efforts, regardless of their abilities. "A kid who is not necessarily the best student in the class is still going to be an active participant. And one responsibility of the team is to make sure that everybody comes along."

Pitter said, "I am watching a project outside my window right now where kids are working in small teams planting tulips in different plots of ground. The students will be tracking the arrival of spring on the computer. Classes all over the country are planting the same variety of tulips at the same time. They are going to be charted on a map when they start to bloom around the country. The students will watch the blooming pattern as it moves up from the equator, up to Canada."

In a typical classroom, students work together in different "centers." He said, "If we were to walk into the classroom, what you would see is five centers in operation, each having a different activity. Depending on the teacher, some signal is given about every twenty-five to thirty-five minutes, and kids will stop what they're doing, get up and move to a different center, and begin a new activity."

In addition to working together in small groups, students of different ages are also paired together through peer-to-peer tutoring, which is motivating for both parties involved. As part of their scope-and-sequence requirements, all fifth-graders are assigned to teach first-graders how to use Hypermedia and to help them develop a Hypermedia project. Similarly, fourth-graders work with third-graders on projects, and second-and third-graders are paired with residents of the senior center across the street. "Everybody has some kind of intergenerational peer to work with," said Pitter.

**Student-Led Conferences.** Started last year by two of the teachers and then expanded this year, this form of conferencing with parents is "another great motivator," well received by students and parents alike.

The student goes through a fairly rigid structure that has been worked out in advance. It takes two or three weeks for the student to prepare the conference with their parents. During the process they share portfolios and provide demonstrations. They also share with their parents "what they perceive to be strengths and weaknesses in their own performance, what they see as areas where they need to improve."

Circulating around the room, Pitter has overheard students say to their parents, "I'm really pretty good at doing this and this, but there are some kids in class who are better than me in this. And some of my classmates tell me that when I do this in our groups, it really bothers them."

As he hears these types of comments coming from the students themselves, Pitter thinks to himself, "Well, we've won! When the kids can internalize that and say, 'Here's what I need to learn' — and we're talking about kindergartners and first-graders as well as fourth-and fifth-graders—we're doing something right." Indeed.

**CONCLUSION**

Being charged with educating the upcoming generation for the rapidly changing world of the future is an awesome responsibility. Teachers' own attitudes about learning and the way they relate to students combine to help shape whether students develop a "have to" or a "want to" attitude toward school and learning, whether they come to view learning as exciting or boring.

If teachers and school leaders are committed, creative, and passionate about what they do, students may begin to equate learning with inquiry and discovery. Ultimately, they may choose to become lifelong learners who value and pursue learning for its own sake.

Linda Lumsden is the Clearinghouse's associate editor.