

Education Matters

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Some Math Programs are Out of Tune



If we taught music like some “experts” say we should teach math, it would be the end of the road for music in America

By Niki Hayes

Suppose those learning to play musical instruments had to learn to play them by ear. There would be no focus on the symbols of music, sounds of specific notes, practicing scales, learning classical pieces, or even learning some standard tunes from which creative “extensions” could be made.

The small percentage of students who could play an instrument by ear could not help others as they try to craft their own natural talents into productions because the intuitive players couldn’t translate their innate abilities into internationally known music symbols.

Discovery Learning

So the adopted method for all other students would be called “discovery learning.” Students would “manipulate” their instruments with teachers “facilitating” the students’ efforts to discover how to form a particular tune, which, of course, they had created themselves. There would be no continuous practice—no “drill and kill” of repetition. All tunes would be considered acceptable because they were the original, personal creation of each student. Comparisons to respected or classical renditions might be possible, but that would be extremely time-consuming, and it would not be considered “relevant” in

today’s modern classroom.

Students who needed to learn by the old-fashioned methods, such as studying music symbols, their related sounds, and repetitive practice would need extra tutoring. Supplemental materials might be

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allowed that taught some “basic skills,” but the bigger picture to learning music, or the conceptual approach, must be maintained. All of this supplementary material would cost extra money for the schools—and extra time for the students and teachers.

Schools of education that train teachers would insist this “discovery” method of learning music is progressive and provides social justice for girls and students of color in the music profession. They would base much of their beliefs on a

few education researchers in the 1970s who had concluded that inductive and intuitive methods—those that focus on process rather than product—were needed by these two “subgroups.”

White males and Asian students were the only ones who had benefited, they said, from the traditional methods of learning music for the past several thousand years. The progress made in music by the “ancients” and their methods were considered of no significance in the child-directed “discovery” teaching philosophy.

Many elementary school teachers liked the discovery method because it did not require their learning the music symbols and the many complicated relationships that could result from those symbols. High school music teachers hated the discovery method because they had difficulty finding enough qualified students to form a school band, symphony, or choir.

Many parents of elementary students accepted the discovery learning because the students seemed to “enjoy” it and they always had good grades in the subject. After all, the grading was based on subjective judgments about the student’s process of creating his or her own musical piece, and it was not a comparison to another’s work.



Dire Consequences

The consequence, however, would be a growing lack of new musicians. This would impact high school bands, symphonies, musical productions in theatres, and the entire music industry. Foreign students who had studied traditional music lessons would become the heart of

America's shrinking music scene.

How long before the public would refuse to tolerate this destruction of music education and ultimately music's contribution to society and the world? Would it take five, ten, or even twenty years? Would college music teachers stand by quietly as their incoming students' profi-

ciencies continually disintegrated? Would professional music companies and businesses ignore the shrinking pool of talent? Would business leaders buy into the progressive philosophy that insists we must focus on "creativity thinking" and not worry about the significance of foundational work in the music discipline?

Music & Math

Now substitute "mathematics" for "music" and you have a picture of what has been happening in American mathematics education for the past 40 years.

"Whole math," based on conceptual, intuitive, processed-thinking has replaced traditional mathematics education. (Yes, it is the parallel universe to the "whole language" fiasco that produced two generations of poor readers and writers in American education.)

Algorithms, symbolic manipulation, and basic skills are no longer mastered in elementary mathematics—and therefore in high school classes—because those represent the traditional, classical education formerly reserved only for white males, according to the leaders of "reform mathematics." The traditional program represents "drill and kill," they say. Traditionalists say the program offers "drill and skill," as well as mastery of concepts.

Crescendo

This reform pedagogy was codified in 1989 by a private group called The Na-

Weeds in the Garden State

New Jersey works to cultivate higher math standards for teachers

Qualified math teacher candidates are hard to come by in any state and New Jersey is no exception. According to the state's department of education, only 58 percent of prospective secondary math teachers were able to pass the Praxis II state licensing exam in mathematics last year.

Despite the dismal pass rates in the Garden State, the Board of Education is still considering a courageous, yet controversial move to raise the minimum passing scores on the Praxis II. New Jersey's current passing score stands at a relatively respectable 137 out of a possible 200 points, compared to Colorado's high of 156, and Idaho, Arkansas and Alabama's lows all under 120.

This would be the second time since 2004 that the state raised the passing score. The state also raised the minimum GPA required for licensure from a 2.5 to a 2.75.

Although not everyone is on board with the proposed

change, Assistant Commissioner Jay Doolan hopes the increased passing score would set higher standards for teachers and move New Jersey to the top tier of states requiring the Praxis II.

Considering that New Jersey is suffering from a shortage of math teachers, a dilemma emerges: with test performance in the subject area so low, raising the bar will likely reduce the already inadequate pool of licensed math teachers. On the other hand, absent state pressure to raise standards, it is unlikely that schools of education will take the steps they need to in order to raise teacher competency. In late winter of 2008, the National Council on Teacher Quality (NCTQ) will release a study on the mathematics preparation of elementary teachers that examines this issue. Two of New Jersey's teacher education programs will be included in the study.

Source—NCTQ's Teacher Quality Bulletin, www.nctq.org

tional Council of Teachers of Mathematics (NCTM) when they published their Curriculum Standards for K-12 mathematics education. The National Science Foundation (NSF) bought into their ideas, probably due to their emphasis on egalitarianism. From 1991 through 1999, the NSF pumped \$83 million into universities and publishers that would create math curricula that supported the reformists' social engineering agenda. In 1999, more than 200 professional mathematicians sent a letter to Richard Riley, Education Secretary, asking him to withdraw support for the reform math products, due to their poor quality of mathematics instruction. He ignored them. Even more millions have been funneled into the programs from both government and private sources.

Educators have latched onto these cash cows as money is offered to "pilot" reform programs and students have become research subjects. Math wars have erupted among parent groups and districts in pockets across the country, as parents (and a few teachers) try to change the direction of mathematics education in their schools. Parents are learning, however, that schools really do not want parent involvement if it means they are going to question curriculum choices. Moreover, test scores continue to show the disintegration of mathematics' skills among American students.

When educators and businesses wonder why this is happening, they should think about students learning to play music by ear. That is the real world of mathematics education today. It has been going on, officially, for almost two decades. How much longer will it be allowed by the people who can make a real difference? ■



Niki Hayes retired last year in Seattle, WA, after 30 years in public education. She served as an elementary principal in Seattle and the K-12 principal for the Spokane Indian Reservation, as well as being a teacher in math-

ematics, special education, and journalism in Central Texas. Mrs. Hayes also worked in the journalism field for 15 years. She now lives in Hewitt, TX. This article first appeared at www.EdNews.org.

Portfolios: A Backward Step in School Accountability

By Robert Holland

With Congress set to take up the thorny issue of reauthorizing the No Child Left Behind Act (NCLB), lobbyists for the National Education Association and several other education interests are advocating a major change in accountability for the billions spent on NCLB. Instead of states being required to administer annually a standardized test of students' ability to read and to compute, they want states to apply "multiple measures," including, most notably, portfolio assessment.

But portfolios are collections of student work, such as essays, artwork, and research papers. Progressive educators long have advocated that portfolios be substituted for paper-and-pencil tests because they are more "natural" and "authentic."

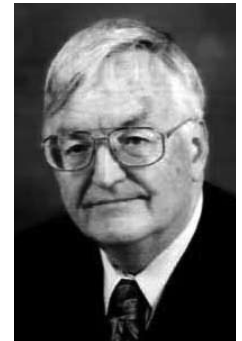
In the 1990s, Vermont and Kentucky implemented portfolio assessment as an integral part of education reform plans. Separate studies by nationally respected researchers showed that as a school accountability tool, portfolio assessment was a huge flop in both states, yielding results that were wildly unreliable and very expensive to obtain.

It is difficult to comprehend why any consideration is being given to reviving portfolio assessment as a way to gauge the effectiveness of No Child Left Behind, given the well-documented experiences with this technique of measurement in Vermont and Kentucky during the 1990s. Well-respected researchers found these failings, among others, for portfolios' use in high-stakes assessment:

- A failure to yield reliable comparative data.
- Large differences in the way teachers implemented portfolios.
- Major differences in the opportunities students were given to revise their work, resulting in misleading data when students' collected work was compared.
- Great differences in the degree of difficulty of assignments, rendering comparisons among students or groups of students highly misleading.
- A high price exacted in money, time, and stress on staff.
- A lack of control factors, such as teachers' initial instructions to students.
- Variations in the degree of assistance students amassing their work portfolios receive from peers, parents, teachers, and other sources.
- Opportunities for cheating by importing work not one's own.

Of course, portfolios can be perfectly wonderful devices for classroom teachers to use with individual students. However, for large-scale evaluation, standardized tests primarily using multiple choice questions offer education officials the best value in terms of reliability, accuracy, ability to generalize the results, ease of scoring, and costs.

Obviously, education is about much more than test-taking. But to test once a year to ensure that kids are learning to read and compute up to an acceptable standard does not seem to be an unreasonable requirement. ■



Robert Holland is a Senior Fellow with the Lexington Institute.

To receive a free copy of this 10-page paper, contact mail@lexingtoninstitute.org or (703)522-5828. It is available online at <http://lexingtoninstitute.org>.



\$12 Million in Scholarships for Students

The Horatio Alger Association of Distinguished Americans, Inc., is accepting applications for the 2008 National and State Scholarships. High school students from across the country are encouraged to apply now through October 30, 2007, for the opportunity to gain financial assistance with obtaining a college degree. Applications can be found at <http://www.horatioalger.org/scholarships>.

The Horatio Alger Association annually awards more than \$12 million in college schol-

arships to American high school students and military veterans.

The Association has become one of the largest need-based scholarship programs in the country. The scholarships are awarded to students who have demonstrated integrity and perseverance in overcoming adversity and hardships in their lives while demonstrating strength of character, strong academics, commitment to pursue a college education, and desire to contribute to society.

AAE Foundation Welcomes Dr. Barbara Christmas

Dr. Barbara Christmas is the newest member to be elected to the AAE Foundation Board of Directors. Her well-rounded educational experience is welcomed by the AAEF!

Dr. Christmas began her distinguished career as a high school English teacher and guidance counselor in Tattnall County, Georgia. She served as the principal of several elementary schools in the state and earned the Distinguished School Bell Award from the Georgia Association of Elementary School Principals.

In 1997, Dr. Christmas was selected as a participant of the National Roundtable hosted by President Bill Clinton. She presently serves as a Trustee for Georgia Southern University.

Perhaps the most unique skill set Dr. Christmas

brings to the AAE is her previous experience as Executive Vice President of the Professional Association of Georgia Educators (PAGE)—the largest professional teachers association in the state of Georgia. Since one of AAE's long-range goals is to ensure that there are established professional nonunion teacher associations in every state in the union, Dr. Christmas will be able to lead by example in that endeavor.

Most recently, Barbara was part of the team that established Tech High in Atlanta—a fully-funded, inner city, public charter school featured in AAE's March 2007 issue of *Education Matters*. Welcome Dr. Barbara Christmas!



Children Raise Money by Recycling

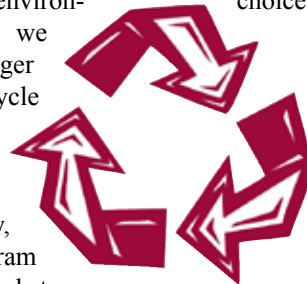
Every day, people improperly discard over 30 million soda bottles that end up in landfills across America rather than being recycled.

Among the many environmental challenges we face, teaching younger generations to recycle and reuse is important. TerraCycle, an eco-friendly company, launched a program called the Bottle Brigade to help teach kids about the importance of recycling and to help earn funds for their school, church, charity,

or nonprofit organization. For each used 20-ounce soda bottle they collect, TerraCycle donates five cents back to the organization of their choice.

TerraCycle's Bottle Brigade fundraiser has grown to 3,500 locations in just over a year. To date, TerraCycle has donated over \$50,000 to a variety of schools and nonprofit organizations for collecting the soda bottles.

Visit www.terracycle.net/bb to sign up your school.





What Works

New Reports to Help Educators

The What Works Clearinghouse (WWC), an initiative of the U.S. Department of Education's Institute of Education Sciences, has recently released five new reports synthesizing the available research for the following interventions:

Beginning Reading Review

Accelerated Reader/Reading Renaissance (now called the Accelerated Reader Best Classroom Practices)—A guided reading intervention in which teachers direct student reading of text.

Auditory Discrimination in Depth—currently called the Lindamood Phonemic Sequencing (LiPS) Program—A program designed to teach students skills to successfully decode words and to identify individual sounds and blends in words.

Little Books - A set of books designed for interactive book reading between parents and children or teachers and students.

Dropout Prevention Review

High School Redirection—An alternative high school program for youth considered at risk of dropping out.

Elementary School Math Review

Progress in Mathematics—A new core curriculum for students in kindergarten through grade 6 that uses a sequence of systematic lesson plans to teach mathematical concepts and skills.

For more information, visit www.whatworks.ed.gov and go to "Reviews Available Now."

"Education is simply the soul of a society as it passes from one generation to another."

G. K. Chesterton

Not Their Cup of Tea

Britain's Professional Association of Teachers Opposes Early Schooling for Children

British child development expert Elizabeth Hartley Brewer recently explained why she supports the call for children to start school later.

"Just as we are all in a state of angst about Britain's depressed, underperforming, overeating offspring, teachers are recommending that children should stay well clear of formal school until the age of seven," said Brewer.

Brewer pointed to England's Professional Association of Teachers (PAT) annual conference, where PAT recommended that children ought to be allowed to delay the start of formal education, allowing them more time for play.

"Are they mad?" asked Brewer. "Or is it just possible that the organization could be plugging this for all the right reasons, having seen at first hand the consequences of the present directive regime of pressure and performance targets on fragile five-year-old minds?"

"Increasingly, when I have visited schools and met parents, teachers, and child psychologists," she added, "there have been discussions about why our children have to start school so early."

Brewer highlighted recent research in America. "Raising the starting age is not a radical idea," she commented. "Many countries have followed the practice for decades and their children do not suffer. American research recently found that children who had 'teacher-led,' academic lessons at the age of five did not display 'lasting academic advantage' over those who began later. Moreover, they were more likely to suffer emotional problems as adults."



Volunteers Honored by AAE State Partner

The Associated Professional Educators of Louisiana (A+PEL) is proud to honor school volunteers who have been recognized in their schools and parishes as valuable supporters of faculty and students. These individuals, who work tirelessly to make a difference in our schools, range from parents and grandpar-

ents, aunts and uncles, to education promoters and civic leaders in the community. Their volunteerism stands out because they go way beyond the call of duty.

Since 1999, A+PEL has sponsored the annual Volunteer Award Ceremony and Reception at the Governor's Mansion. Prior to this event, each volunteer

award recipient is first nominated by a school. Based on certain criteria, the A+PEL chapter in that parish then selects one individual to represent their parish as Volunteer of the Year. The honored volunteers are individuals who are making a difference in our schools with their enthusiasm, creativity, initiative, and leadership.

BEIJING BLACKBOARD

China's education system is a wake-up call for America

By Sen. Val Stevens

Recently, I joined a group of American legislators and educators for a tour of Chinese schools, the equivalent of our K-12 system. The trip was a real eye-opener.

We visited Beijing and the Yunnan Province in the People's Republic of China as guests of the Hanban office of Chinese Language Council International, an organization seeking to promote Chinese Language programs in the U.S. and Korea.

From what I saw, we are in deep trouble here in America. Our K-12 education system is so far behind China's, there is no way we can catch up in the near future, let alone the next ten years, without a change in the political correctness that plagues our system.

A Serious Endeavor

China's government runs its schools much like America did in the early twentieth century. Students are taught the importance of attending school and that excelling in school is the way to a prosperous future. Schools are not run by teachers unions, curricula are not dictated by special interests like the ACLU, and schools will not tolerate alcohol, drugs, weapons, or disruption of any kind. Teachers are dedicated to the children, helping them learn and making sure they have a bright future. This takes talent, a warm heart, and a firm hand.

Students in China far outpace Americans at every grade level. How do they do it? First, students are not coddled. Teachers set clear expectations and students rise to the level of those expectations. Attendance is not optional and misbehavior is not tolerated. Students have approximately three hours of daily homework—it is required to pass the testing process. They study hard because they know that good jobs and a promising future depend on it. If a student fails, he or she does not graduate, period. As a result, students compete for high grades and show exceptional scholarship. Student academic scores far surpass ours at every level.

Serious About Results

Part of China's success is hiring Xiang (Bo) Wang, a world-class senior research scientist and psychometrician from the Office of Academic Initiatives and Test Development in New York, to advise them on college prep testing. They have followed his advice, and the results are outstanding.

Another part of their success is that both students and teachers must excel. If a teacher cannot teach, he or she is dismissed. Unlike in America, no teacher's union ensures the job security of an inferior teacher at the expense of their students' future. Un-

like in America, any curriculum that does not result in learning is quickly replaced.

I visited with a group of students who had just passed their college entrance exams. Amazingly, they speak English as well as—if not better than—many American students at that grade level. These students were well aware that they had just passed the test that holds the key to their future. No Chinese student simply expects to “get by” if they do not measure up. If they fail, they must take another track—usually to learn a trade.

Serious About Discipline

Chinese students wear a simple uniform—the only competition is for grades. They know and revere their culture, history and leaders, and have a healthy respect for authority. They are happy, involved, excited about life, and their future in it. For me, being with these students was like stepping back in time to the 1940s and 1950s in America, when our students were respectful, involved, and innocently full of joy.

Students in China were not complacent, entitled, self-absorbed or bored—because their school system did not set low expectations, pass the unprepared, teach ineffective curricula, or lack accountability as is too often the case with the American education system.

The People's Republic of China dictatorship is training its students to be leaders of the world. They have taken a page from a system that once worked in America when education—not schooling—was the requirement. If we don't re-tool our school system to mold disciplined, innovative, world-class professionals, I fear we will eventually find

ourselves their servants.

The simple truth is, to hold our present economic position in the world, Americans must be able to compete with some very determined countries. Our students are simply not being prepared. Ultimately, if they do not measure up, they will be eclipsed, and America will become a second-rate society. ■

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Washington State Senator Val Stevens (R-Arlington) represents the 39th Legislative District.



Math & Science Education Gets Boost

Congress passed, and the President signed in to law, the 21st Century Competitiveness Act of 2007, which seeks to strengthen math and science education in the United States. It will provide grants for teacher recruitment and training in math and science. Funds will also be available to increase the number of Advanced Placement and International Baccalaureate classes and programs such as "Math Now" in schools.

"While other nations are raising their standards and numbers of science and math graduates, the United States is not keeping pace. This bill will enhance the economic competitiveness of our nation by stopping the long-running decline in the number of U.S.-trained engineers and mathematicians," stated U.S. Chamber President and CEO Tom Donohue.

Among the provisions of the bill is a measure to expand the Robert Noyce Scholarship Program. This program provides grants totaling \$10,000 a year for college students who major in math- and science-related subjects and agree to teach in high-need schools.

The bill also provides competitive grants for teachers who wish to pursue master's degrees in science and math and undergraduates who obtain degrees in science, math, and foreign languages while also gaining teacher certifications. A total of \$177 million dollars has been set aside for these grants, which would be administered by the U.S. Department of Education.

A New Pilot Program Allows Teachers to Develop Tests

Recently the U.S. Department of Education has awarded a \$1.3 million, 18-month grant to a coalition of organizations and ten states to improve academic assessments.

Teachers in roughly thirty pilot schools in these states are creating formative assessments. Participants in the program are using materials from the Educational Testing Service, a partner in the coalition, as a base but are developing their own assessments to complement learning that is happening in their own classrooms.

"Our main objective is to help states improve the quality and reliability of academic assessments and accurately measure student achievement, providing information to help students do what they need to succeed," said Rebecca Neale, a spokeswoman for the U.S. Department of Education.

The states participating in the pilot program are Arizona, Connecticut, Delaware, Iowa, Louisiana, Maine, Michigan, Nebraska, North Carolina, and Virginia.

For more information about the pilot program, please read the following article titled, "Ten-State Pilot Preparing Teachers to Develop Tests," at www.edweek.org.

2007 ACT Scores Released

Recently the ACT scores for the class of 2007 were released. A record number, 1.3 million, took the test this year and the average score rose slightly from 21.1 last year to 21.2 this year. Scores increased in the four tested subject areas: English, mathematics, reading, and science. In response to the ACT scores Education Secretary Margaret Spellings stated, "While scores have improved in all four required subject-area tests, more than half of all test-takers still fell short of the college-readiness benchmarks. This is unacceptable when 90 percent of the fastest-growing jobs require at least some postsecondary education."

The college-readiness bench mark is the minimum score set by ACT in all four subject areas that indicates that the student has a 75 percent chance of receiving a "C" or better in a beginning-level college class. This year the percentage of students who met the college-readiness bench increased from 21 percent last year to 23 percent this year.

"We still have a serious problem in terms of college readiness," stated Richard L. Ferguson, the chief executive officer of ACT Inc. "While ACT believes that students taking the core curriculum should be adequately prepared for college, unfortunately that doesn't appear to be the case, especially in math and science."

For more information about the 2007 ACT scores, visit www.act.org/news.

Lawsuit Filed against the U.S. Department of Education

A coalition of California parents, students, and community groups are suing the U.S. Department of Education (Renee v. Spellings) over the "highly qualified" requirements for teachers under No Child Left Behind.

The U.S. Department of Education allows teachers who seek alternative- route programs to teach for up to three years while they seek certification. These teachers are designated as "highly qualified" during this time. The plaintiffs in the case are bringing the lawsuit against the department in hopes of having this regulation declared void.

"My son's first grade teacher is still taking classes necessary to obtain her full teaching credential. I think it's wrong that she is called highly qualified. I feel like I am being lied to," said Maribel Heredia, a parent in Hayward, California, and one of the plaintiffs.



To read AAE press releases, visit www.aeteachers.org. Click on "press room."

The Well-Managed Classroom

By Michele Hensley, M.S., Walter Powell, Susan Lamke, Scott Hartman, M.S.

School is a social environment that is seen as unfair, unruly, and unwelcome by too many teachers, students, and parents.

Dealing with behavior problems is a source of frustration and a primary reason why teachers quit their profession, according to recent national surveys. In addition, a significant number of students and parents believe their schools respond to discipline issues in arbitrary and discriminatory ways. All this misbehavior and mistrust comes at the expense of learning.

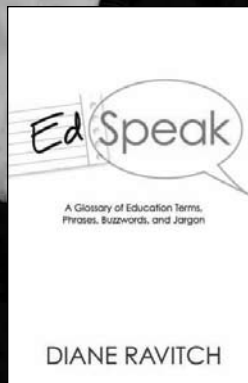
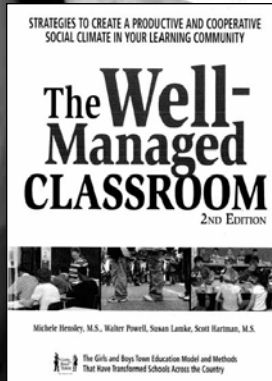
The Well-Managed Classroom

is a timely and comprehensive book that cites the latest research on issues essential to improving the social environment of schools.

It describes practical strategies to reduce classroom disruptions and increase the physical and emotional well-being of students

The philosophy and principles described in *The Well-Managed Classroom* are the foundation of the Girls and Boys Town Education Model, a proven approach to classroom management. Studies show the Model reduces behavior problems, increases instruction time, and improves academic performance. Educators from across the country describe *The Well-Managed Classroom* methods as “superior,” “effective,” and “tremendous.”

Published by Boys Town Press, www.boystownpress.org. ■



Ed Speak

By Diane Ravitch

Have you ever heard of Suggestopedia? Do you know what a gallery walk is? How about the difference between a stem and a foil? Maybe you don't think it's necessary to know these education terms. Diane Ravitch thinks otherwise.

Education, like most professions, has its own unique vocabulary that is often unfamiliar to outsiders. But unlike those of other professions, Ravitch contends, the language of education must be clear and intelligible to all. Because education in large part determines the future of our society, economy, and culture, it is crucial that education issues be understood by the general public. And to understand the issues, we need to under-

stand the specialized language used in the field.

In this book, Ravitch demystifies the often-obscure and ever-changing lingo of the education field. With more than 500 entries, *EdSpeak* translates what Ravitch refers to as the “strange tongue” of pedagogese into plain English, adding historical context and lively commentary along the way.

This glossary will serve as a valuable resource for both veteran educators who need to stay abreast of newly emerging terminology and newcomers to the profession—be they teachers, administrators, parents, students, or citizens who care about what happens in the classroom.

Published by Association for Supervision and Curriculum Development (ASCD), www.ascd.org. ■