

**Montana Association for Supervision and Curriculum  
Development**

**INFOCLIPS**

**the mascd newsletter**

**MASCD Goals**

**Goal 1**

Expand the sphere of our influence by being a strong and proactive organization dedicated to providing exemplary leadership and support for educators throughout the state.

**Goal 2**

Make member services a priority in order to assure that across this geographically expansive and isolated state, we have a membership that represents all counties and includes a diverse array of cultures.

**Goal 3**

Address pressing contemporary issues for the purpose of bringing an awareness of critical concerns to our educational leaders, who will participate in determining responses appropriate to our diverse rural Montana school environment.

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**Montana Indian Education Association Conference 2007**

By Dr. Christine Wortman-Engren,  
Curriculum Director - Great Falls Public Schools

On April 12, 2007, I attended my first Montana Indian Education Association Conference, "Indian Student Success is Montana's Success" in Bozeman. This 26<sup>th</sup> annual conference had many prestigious sponsors and was attended by representatives from all eight tribes. I attended to support Dulce Whitford who is on the MIEA Board of Directors and Corri Smith who was giving her very first keynote speech. Little did I know how much I would learn in just a few short days!

On the first day I was amazed by the dignity, ceremony, and honor with which conference participants were greeted. Opening ceremonies included a flag presentation by an all girl, all Indian ROTC from Lame Deer. An honor song in Blackfoot was impressive and one of three different languages I heard at this conference. An elder offered a prayer in the name of the young who have been caught in the trap of drugs. Finally, Dr. Geoff Gamble, President, MSU Bozeman, gave the welcome speech.

The keynote speaker for that day was Dr. Greg Cajete, a New Mexico educator, artist, and consultant. Dr. Cajete is the author of several books including *Igniting the Sparkle: An Indigenous Science Education Model*. The title of his presentation was "The Indigenous Paradigm: Building Sustainable Communities." His speech elicited a variety of questions including: What is the Native American perspective? How can you erase the culture of a person? What is the difference between Native education and Western education? Do all people have a right to self-determination? Then he asked "What can we learn from traditional (meaning Native American)

environmental knowledge?" This begs the question about whether our Eurocentric approach to science is the only or best way to think about science. Don't we owe it to our students to at least consider other ideas? If we want our students to have lifelong relationships with science in our community, don't we need to be sure that we address such issues as ecological integrity, sustainable orientation to science, and a vision of science in relationship with our community? Again he asks, "Shouldn't science education be culturally responsive as it relates to our environment?" Given our recent affair with CRT's and NCLB, I wonder how the educational leaders of Montana will respond.

I was already sold on this conference, but there was still more to come. I should mention that this was a conference where parents, teachers, administrators, OPI guests, and students were indistinguishable. Everyone attended. Everyone participated. Special student activities were being hosted on the MSU campus, but it was not unusual to see children attending Linda McCulloch's speech, or John Tester's presentation, or presenting a power point of the history of the Northern Cheyenne. Great Falls parents stopped me between sessions to visit and discuss the last workshop or speaker.

The highlight of the conference came for me, when I watched my friend and colleague, Corri Smith, give her Keynote Address on the second day of the conference. I felt her nervousness as she stepped to the podium and began to speak rather quietly to an audience of about 300. She said a lot that day in her speech titled "Come to the Edge", but I will never forget her story of her mother's educational experience. She

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**The mission of the Montana ASCD is to facilitate teaching and learning to ensure success for all Montana students.**

## 2007 Montana Educators' Institute

### Willard Daggett—Developing 21st Century Literacy in Students June 11, 2007

By Sue McCormick, *Superintendent of Polson Public Schools*

Willard R. Daggett, President of the International Center for Leadership in Education, spoke to an audience of 221 in a pre-conference session at the Summer MEI on Monday, June 11, 2007. Those in attendance were inspired, provoked, invigorated, shocked and at times entertained. Conversations in the halls and restrooms during session breaks were pregnant with many and varied reactions to Daggett's message, which was, public schools in America are doing a good job of educating all students, but "good" is getting in the way of "great." Schools in America are trying to set and achieve high academic standards for students and schools, and while these initiatives are essential, they're far from adequate. The world outside of American public schools is changing at "warp speed" while our schools are in the best case scenarios responding to these changes at a snail's pace. Public schools in America have become museums and our instructional strategies, curricula, assessments and technologies, artifacts.

The economic and social impacts of globalization are fueling this accelerated rate of change, according to Daggett. The open and expanding economies of India and China are part of the fuel mix. Also in that mix is a constellation of rapidly evolving technology: bio, *in vivo* and nanotechnologies, quantum computing, bio-engineering, and bioinformatics.

The global economy needs scientists and engineers and graduates of America's schools are not choosing science and engineering. Some staggering statistics he cited in an article he published in 2005 and referenced during the pre-conference include:

- Bachelor's degrees in science and engineering make up more than 60% of the total degrees earned in China.
- 5% of the degrees earned in the United States in 2004 were in science and engineering.
- In 2005, China alone graduated 350,000 engineers.
- By 2010 it is predicted that 90% of all the world's scientists and engineers will be in Asia.
- U.S. enrollment in science and engineering has dropped by 12% in the last five years.
- Nearly one-half of all U.S. university enrollments in science, technology, engineering and mathematics are students who are non-U.S. citizens.
- In 1975 the United States ranked third in the world in the percentage of its students who received degrees in science and engineering. In 2005 we are 17<sup>th</sup> in the world.

Daggett suggests that in a world in which science and engineering have

become the cornerstone of what graduates need to know and be able to do in the 21<sup>st</sup> century, "the U.S. is being outpaced dramatically by China, India and Eastern Europe.

Daggett's evidence is hard to refute...U.S. public schools are not keeping pace with the changes in the world. But museums...have our public schools really become museums? Daggett's metaphor just may be too real to fully comprehend.

***If you enjoyed this year's  
Montana Educators' Conference,  
you are really going to like what is  
in store for you at the***

***2008 MEI Conference  
June 9-12, 2008  
Great Northern Hotel  
Conference Center  
Helena, Montana***

***Check the MASCD website below  
for registration information on this  
conference.***

***(Registration is not open at this time but  
will be shortly. Please check back often  
for this and other information from  
MASCD)***

**<http://montana.ascd.org>**

## 2007 Montana Educators' Institute

**John Brown—Understanding by Design**  
**June 12, 2007**

*Understanding by Design:  
 A workshop that helped me design my understanding  
 by Eliza Sorte, Director – Northwest Montana Educational Coop*

I attended John Brown's workshop on Understanding by Design at the 2007 Montana Educator's Institute in Helena. As a result, I'm beginning to design my work backwards so I can move forward.

Recently, I was reading a novel to deepen my understanding regarding Indian Education for All when I was struck by a quote that seemed to encapsulate the "big idea" of the Understanding by Design framework. The author of my novel said that "knowing something is not the same as being wise." The intent of Understanding by Design is to make our students wise, rather than make them strong competitors on Jeopardy.

To begin with the end in mind, however, will require a paradigm shift for those of us that have been in education for a while and it will be a rigorous new learning experience for those just beginning their careers.

This new way of looking at curriculum is really not so new. It is what master teachers have been doing for years. It is not some new program that comes to us from the curriculum gods above. It is a way of designing student learning and understanding and to show what they have learned. To begin planning with the end in mind is not a new concept for educators. *How* to do this has always been the missing link. One way to do the *How* is to use what John Brown calls the "Three Circle Audit."

We teachers are continually evaluating whether or not a student needs to learn certain material. John Brown says the criteria for deciding on what to teach lies in the answer to this question: Is this something that the student needs to know for forty days (the outer circle-the familiarity level), forty months (the middle circle-what should we know and be able to do), or forty years (the center circle-the explorations and acquisitions that create in us a life long desire to learn)?

By "unpacking" the standards and information we expect to teach to our students, most teachers will quickly come to the conclusion that "not all standards are created equal." Our goal is not to take students on a tour of content, but rather guide them in learning and applying it.

Teachers have another task equal to deciding on content. We must also consider how this understanding will be measured. The same "Circle Audit" can be used to make sure that assessment and instruction are aligned. John Brown suggests that we strive for a "photo album", not a "snapshot" of student performance data by using multiple assessment measures.

Assessing forty day material (outer circle) requires recall and does not lead to a deep understanding. Traditional multiple-choice quizzes and tests inclusive of selected responses give students and their teachers the feedback they need.

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*MASCD builds and fosters collaborative partnerships to produce meaningful, effective, and timely professional learning for all educators. Be sure to check out our website at:*

<http://montana.ascd.org>

### Presenting the MASCD Board of Directors

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## 2007 Montana Educators' Institute

### Russ Quaglia—8 Conditions that Affect Aspirations June 13, 2007

By Janice Jamruszka-Wilson, *MASCD President*

Russ Quaglia's energy and enthusiasm wowed educators on Wednesday morning with his presentation on promoting aspirations in our students by working in the affective domain to increase student achievement. Workshop participants were excited to take what they learned back to their schools and implement the ideas.



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### Edith Canor-Buck Integrating Science, Math and Literacy Through The World in Motion June 13, 2007

By Claudette Morton, *Montana Small Schools Alliance*

Edith Cranor-Buck's workshop was a real hands-on learning experience where the workshop attendees worked in teams to build a car. Participants had ample opportunity for discussion of the student experience and teaching possibilities that would work in their schools and classrooms.

Edith's presentation gave participants a change of pace from the other conference speakers. Instead of focusing on changes in the district and curriculum approaches, participants were challenged to work in teams doing real world problems to make simple machines work.

After a brief explanation about the fact that these learning materials were created by the International Society for Automotive Engineers as a way to get students of all ages interested in science, we set to work. There were 25 eager but apprehensive educators from all levels and backgrounds. They worked in groups of twos, threes and fours. Their tasks were building a machine with gears that would run on a small electric motor, building a skimmer (paper sailboat), or creating a jet toy with balloons. It wasn't just putting the parts together, but determining through trial and error how to make the models go faster or slower, in a straight line, or up inclines.

The educators were also given wonderful examples of how these hands-on learning units could teach not only basic science concepts, but mathematics, writing, speaking and listening and even art. Edith has been using the program in her seventh grade math classes at Helena Middle School so she had many student samples. She also is a trainer for the ISAE and has worked on the development of several of their materials.

All of the learning kits are durable or have replacement parts available in any town. Replacement parts are such things as paper clips, paper, balloons, etc. Everyone had a great time struggling and learning, and several went away with actual kits to begin to teach their students real science through inquiry and trials. Others took order forms and will be asking their administrators if they can bring these exciting ideas to their students. Because of the workshop the kits were free.

Unfortunately, Edith has just retired and is leaving the state. If others want information on the program they can contact Claudette Morton at the Montana Small Schools Alliance, [cmorton@metnet.mt.gov](mailto:cmorton@metnet.mt.gov), or 447-4219.

## 2007 Montana Educators' Institute

### **Tammy Elser** **Critical Literacy: Implementing Indian Education for All** **While Building Better Readers** **June 14, 2007**

By Janice Jamruszka-Wilson, *President MASCD*

This dynamic presentation by Tammy Elser underscored various strategies and activities to employ in teaching literacy using Indian Education for All materials. Attendees had a chance to discuss and practice strategies like building background knowledge and making the material and activities relevant and challenging to the student.

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### **Shelly Fagenstrom and Sharon Patton-Griffin** **Breaking Ranks in the Middle** **June 14, 2007**

By Barbara Cooper, *C.R. Anderson Middle School—Helena*

The Breaking Ranks in the Middle workshop by Shelly Fagenstrom and Sharon Patton-Griffin was outstanding! I learned so much about middle-level reform and how to begin the process. The presenters were fabulous in that they took the time to fully answer questions and were receptive to our ideas. They gave us some great handouts on staff/student surveys.

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### **Terra Beth Jochems and Laura Zimmerman** **Susan Barton's DVD Presentation—Dyslexia: Symptoms & Solutions** **June 14, 2007**

By Janice Jamruszka-Wilson, *President MASCD*

Laura Zimmerman and Terrabeth Jochems facilitated this workshop which dealt with recognizing dyslexia in the classroom and developing strategies to help students with learning difficulties. Many participants wanted more time to explore and practice more teaching techniques that would help dyslexic students.

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**Be sure and watch for upcoming information on the**  
***April Candidates' Forum for the Superintendent of Public Instruction***  
*Sponsored by MASCD & MSBA (Montana School Boards Assn.)*



## Dr. Christine Wortman-Engren, Dulce Whitford & Corri Smith— Understanding by Design in Practice: Indian Ed for All June 14, 2007

By: Karen Ortman, *Glasgow High School*

The Thursday afternoon session, “**Understanding by Design in Practice: Indian Ed for All**”, was a nice closing to the Summer Institute. As the title of the session implies, the session used the format of Understanding by Design (UBD) to show us lesson plans created by the Great Falls School System to meet the requirements of **Indian Ed for All**.

Dr. Christine Wortman-Engren began by reviewing the basic steps of Understanding by Design (UBD) that Dr. John Brown had presented in earlier sessions. Through discussion, we all reinforced our learning of the basics of UBD.

Dulce Whitford then broke us into groups and had us summarize the seven Essential Understandings of Indian Ed for All. We shared our summarizations, providing comprehensible input for all of us of those seven points.

Next Corri Smith presented a unit her committee had created infusing **Indian Ed for All** in the regular curriculum. The book, **Indian Shoes** by Cynthia Letich Smith, was substituted for **Frindle** in the Holt fifth grade curriculum. Corri also referred to a math unit they had created.

I appreciated the encouraging and helpful suggestions from each of the presenters of this session. They are great resources for all of us in implementing **Indian Ed for All** and in using the principles of Understanding by Design. A powerpoint of their presentation can be accessed at [www.mnccsr.org](http://www.mnccsr.org).

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## Montana Indian Education Association Conference 2007

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showed us a picture of a class of young women at a mission school all dressed in the same type of rather dreary clothing. All of the women had the same haircut, and none of the women, save the nun in the middle, was smiling. As Corri talked about her mother at the mission school, what she pointed out was that all of the women had white toes on their ugly but practical brown shoes. Why? Because every day, the one thing those students were sure to do was scrub the school house floors on their hands and knees. Corri's mother was so proud of how clean that school was. Then Corri in her quiet voice said, “My mother was brilliant and an innate teacher; she could have been anything given half the chance. I know now that the right to education is the key to achieving equality, free from poverty and marginalization, but my parents were not given this right.” The room was deathly quiet. The message could not have been clearer if Corri had shouted.

Corri counted coup that morning. She invited us all to come to the edge to see what we could do in Montana. How will we as legislatures, educators, parents, and teachers work together to stop letting the effects of poverty and marginalization keep our Native students from enjoying the inherent right of a quality education that most of us expect? Are we really doing the right things? Should we be doing more? I wonder how many of our Native students feel like they are full participants in the public schools, or do they feel marginalized. I wonder how many of our white teachers cover their hearts with bias and blame as they struggle to keep kids engaged in one more reading class.

There were other sights and sounds to take in at this conference. I watched a group of children about eight years old demonstrate their ability to play the drum and sing the ancient songs. Families participated in huge Pow Wows. Parents and educators talked openly and frankly about student achievement, truancy and dropout

rates. Schools met to compare notes on how to deliver Indian Education for All, and OPI delivered many and varied workshops loaded with lots of information.

I came home more committed than ever to finding ways to keep our Native children engaged and in school. I believe strongly that we must consider carefully the results of CRT tests, and then think hard about our responses. Superintendent Linda McCulloch addressed the conference and celebrated improved CRT results of many schools such as Harlem Box Elder, Brockton, Poplar, Wolf Point, Hays Lodge Pole, Rock Boy, and Browning. Making academic improvement is a valid and necessary goal. However, we must listen to the quiet voices of those folks who have come to the edge. We must ask the hard question and frame the harder answer. Academic achievement is necessary, but it is not sufficient. If we don't remember to teach the whole child, we will look at old school photographs one day and see, to our shame, the unsmiling faces of our Native children.

## John Brown—Understanding by Design

*Continued from page 3*

Assessing forty month content (middle circle) requires more interaction with the content and a level of understanding broader than just familiarity and recall. Constructed response questions, answering open-ended questions, or doing a performance task or project ask students to demonstrate their proficiency and deeper understanding.

Assessing understanding of forty year

content (inner circle) requires high level interaction and cognition. The performance tasks and projects are authentic, open-ended, and very complex in nature.

I think my retention rate of the Understanding by Design concept places me in the middle circle (forty months) since, according to my day planner, I have passed the forty day mark! I know what I need to know and I know what I need to be able to do. I still have much more to

do to progress towards the application stages of the inside circle.

Someday, I hope to have insight into how we help students learn to understand, rather than to give quick answers to questions for which there is only one answer. Learning should be a door to inquiry and adventure instead of a television game show experience.



### Plan to attend a Montana ASCD Exhibitor Fair!

**Missoula, Montana**

**Holiday Inn Parkside**

**9 a.m.—5p.m.**

- Tuesday, January 29, 2008
- Math K-12, Reading, Language Arts K-12, Writing

**Great Falls, Montana**

**Heritage Inn**

**9 a.m.—6 p.m.**

- Tuesday, February 5, 2008
- Science, Social Studies, Math K-12, Language Arts

**Bozeman, Montana**

**Holiday Inn and Grantree Inn**

**9 a.m.—5 p.m.**

- Wednesday, February 13, 2008
- Science, Social Studies, Math K-12, Reading

<http://montana.ascd.org>

Dr. Janet Thomson, Executive Director—406-453-6242  
jannyt2162@bresnan.net



## High School Reform: It's About Time

Anne Nelson

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*MASCD felt this article from the ASCD InfoBrief was well worth reviewing.*

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It's no secret that American high schools face significant challenges. The current educational model that was designed to serve the United States in the early 1900s is no longer relevant in preparing students to succeed in today's global economy. Leaders across all fields worry that even students who do complete high school are not adequately prepared for higher education or work success.

Evidence that the traditional high school is long overdue for reform has been mounting for decades. High school graduation rates are dropping. Many students who enter college require remedial courses in basic subjects, and an increasing number of young adults who join the workforce directly out of high school have insufficient reading, writing, and mathematics skills. At the same time, an increasingly complex global economy means that students need critical thinking skills, technological expertise, and business acumen to succeed. In short, our nation's schools are underperforming. We are graduating—or not graduating—too many young adults who are ill-prepared to enter college or the workforce. This has significant ramifications for the United States' economy, as we are no longer competing against one another within our country so much as on a global scale. Our students must be prepared for success in a global workplace because they are competing against students in other countries that are making robust strides in education.

Some school districts have responded to the demand for better-trained graduates by implementing promising and innovative practices in high school reform. These efforts include changing the standard course of study, the composition of the school day, and the way students are assessed. Specific programs that have produced positive results include smaller schools and career academies. Multifaceted approaches to high school reform include personalized learning experiences, flexibility for students, rigorous curricula, and new models of teacher professional development. In response to these efforts, promotion, attendance, and graduation rates have improved—and, most important, so has students' academic performance.

In this issue of Infobrief, we explore the five key components of ASCD's High School Reform Proposal: (1) multiple measures of assessment; (2) personalized learning strategies; (3) flexible use of time and structure; (4) new professional development models for teachers and school leadership; and (5) business and community engagement. Each of these components places the focus of education on the learning goals we want students to achieve, with greater flexibility to allow students and schools to reach those challenging goals in the best way possible.

Schools are successfully implementing and funding these strategies at local levels. To have a significant effect, however, the strategies require consistent implementation at the national level. Given the negative impact of underperforming high schools on U.S. economic prosperity—including the nation's ability to compete globally—it is time to take action consistently, on a national level.

The venerable comprehensive high school—the one-size-fits-all, one-stop diploma shop leading to college, jobs, military service, or marriage—is overdue for reexamination and overhaul. High school dropout rates have reached 30 percent (Barton, 2005). According to the American Diploma Project (2004), nearly one-third of entering college freshmen immediately need to take a remedial English or mathematics course, and more than half take a remedial English or math class before graduating. More than half of the high school graduates who enter college never finish their degrees. In addition, research suggests that those students who go directly to work do not bring with them the basic skills necessary to succeed, leaving employers to foot the bill for remedial work in reading, writing, and math. Workers give their high school preparation programs low marks, as well; they rate “literacy and critical-thinking skills as much more important than job-specific or computer skills” (American Diploma Project, 2004, p. 3).

Proponents of high school reform point to the need for a new type of high school graduate—one who can apply the skills gained in pursuit of a diploma to the foundation for a successful college experience and a successful career. Researchers point to the need for schools to incorporate global awareness and financial, economic, business, and civic literacy into the existing curriculum so they can produce graduates with “21st century skills” (Partnership for 21st Century Skills, 2002, p. 5). Research highlights the importance of assessment as a tool to measure progress but also encourages educational leaders to move beyond one-dimensional standardized testing and develop means to “measure the full range of the students' skills in a timely way” (Partnership for 21st Century Skills, 2002, p. 16).

Interestingly, both students and proponents of reform suggest that increased academic rigor is necessary to improve the quality and relevance of earning a high school diploma. In a recent study of high school dropouts, two-thirds of the dropouts interviewed noted that they would have worked harder if more had been required of them, and 70 percent of these former students were confident that they could have graduated if they had tried

(Bridgeland, DiJulio, & Morison, 2006).

States are responding to demonstrated needs and national requirements for increased rigor by aligning curricula with college admission standards and workplace expectations. Some states are increasing the number of required courses in science, mathematics, English, and foreign languages; eliminating lower-tier diplomas; and requiring all students to complete a college-prep curriculum (Martinez, 2005). Others are providing financial incentives for schools that adopt the advanced placement program by subsidizing the student fees required to take the tests (Martinez, 2005).

In sum, the movement toward reform of the century-old high school model is gaining momentum, with nearly all interested parties—students, teachers, administrators, colleges, businesses, and state and national governments and agencies—supporting or implementing elements of change.

## Promising Strategies

With consensus building around the need for change, schools across the country are testing numerous promising strategies for high school reform at state and local levels. These strategies include multiple methods of assessment, personalized learning, flexible use of time and structure, new models of professional development for teachers and school leadership, and business and community engagement.

## Multiple Assessments

Multiple assessments of student achievement are necessary to counteract, or at least balance, the highstakes scenario of measuring student achievement by standardized tests alone. The primary disadvantage of a traditional standardized test is that it measures student achievement through one test or a set of tests taken on one day in one format. The advantage of standardized tests is that they are easily scored and, when administered correctly, can produce estimates of achievement that are comparable across school districts and states. This ease of comparison can help in assessing local and national trends. For that reason, proponents of assessment reform do not suggest eliminating these tests (Partnership for 21st Century Skills, 2002).

Rather, schools can use multiple measures of assessment, such as advanced placement tests and end-of-course exams, which are taken while a subject is still fresh in a student's mind, in concert with standardized tests. The ability to make effective oral arguments is important to employers and colleges, and high schools can teach and test this skill outside the boundaries of standardized testing (American Diploma Project, 2004). Performance-based assessments—including independent projects; portfolios of work such as art and writing; and demonstrations of a wide range of skills, such as debating, dance, science, or computer applications—can also provide a broader view of a student's achievements. Although some are concerned that these types of measures will lack uniformity nationwide, there is merit to formally including them to complement standardized tests. This would allow for individuality in much the same way that essay components of standardized tests have done for many years.

Standardized tests may also be helpful when used as tools for planning and decision making prior to the end of the student's career. For example, in Tennessee, schools use precursors to the ACT test to help predict ACT scores. These tests help focus students on areas of weakness two or three years prior to taking the ACT exam. Doing so helps students bring their comprehensive scores up to 21 or higher, making them eligible for full tuition at a state college or university (B. Kennedy, personal interview, November 17, 2006). Multiple measures of assessment can also serve as useful diagnostic measurements to improve teaching and learning.

## Personalized Learning

While multiple assessments allow us to gather a variety of data about the success of our students, it's just as important to recognize students' unique learning needs. Personalized learning is a successful strategy for tailoring instruction to differing needs. Promising personalized learning practices currently in place throughout the country include career-focused tracks or career academies, student-driven action plans, individual graduation plans that blend academics and other learning experiences, and more rigorous coursework and personalized daily schedules for struggling students (Education Trust, 2005). Smaller schools, which contribute to personalized learning, are becoming more widely accepted, replacing larger high schools where feasible and, studies suggest, improving student achievement (Wasley et al., 2000).

Individualization of learning helps counteract the one-size-fits-all mentality of the traditional high school and allows students to tailor their learning to future plans and individual needs. Studies have shown that combining academic rigor with career or technical learning (provided through the school), work-based learning (provided through a business in the community), and specific guidance or mentoring designed to help the student move toward postsecondary goals not only improves graduation rates but also helps boost scores in reading, mathematics, and science (Aratani, 2006; Bottoms, 2003). These outcomes will help all graduates, whether they go on to college or report directly to work. South Carolina recently passed a law that requires schools to develop "career-inclusive individual education plans" for 8th graders and implement career planning for 6th and 7th graders (Richard, 2005, p. 2). High schools in the state must begin offering courses from 16 approved career clusters, which include education, communications, hospitality, business, and information technology. The law, which will be fully implemented by 2011, is intended to help

South Carolina's high schools “prepare a new kind of workforce, ready for jobs in technology and research”(Richard, 2005).

Over the past 30 years, more than 1,500 schools nationwide have taken this idea further, implementing career academies, which promote supportive and individualized learning. These “schools within schools” enroll a subset of each grade, typically 30–60 students, in a core curriculum focused around a particular career (e.g., business, health, information technology). Students in a career academy take classes together each year and remain with the same core of teachers, while enhancing their learning with career-focused internships, field trips, and related activities outside of the classroom. Career academies have been shown to reduce dropout rates, improve attendance, improve focus on academic courses, and increase students' likelihood of graduating on time (Kemple & Snipes, 2000).

Another important component of personalized learning is a defined, one-on-one relationship between each student and an adult in the school who is responsible for keeping in frequent contact with the student on both a formal and informal basis. Bridgeland and coauthors cite this relationship as one element that dropouts recommended to help keep other students in school (2006). An earlier Infobrief (Nelson, 2006) profiled the turnaround plan for San Diego's Herbert Hoover High School, which included an initiative called the “Challenge 10.” This strategy enabled the school to stretch the reach of the faculty by having each teacher choose 10 students to mentor and guide—giving 1,400 students access to an adult focused on following their school careers, at no extra cost to the school. Klem and Connell (2004) demonstrated that focused teacher support promotes student engagement, leading to higher levels of attendance, test scores, and high school completion rates.

Schools have creatively addressed concerns about cost and staff time to implement such programs by using scheduled planning periods for teacher and counselor training or using available budget money to hire a dedicated “change coach”—someone to do the legwork on reform initiatives if teacher and counselor time cannot be freed up (Kennedy, 2006).

## Flexibility

Flexible use of time and structure is another promising practice, says Bill Kennedy of the Public Education Foundation's Schools for a New Society (see p. 6). Schools can focus on using activities outside the classroom—including internships, online courses, independent study, and career and technical education—to help students meet graduation requirements. Schools can also vary the number of hours, days, or years necessary to complete high school. For example, some students are better served by finishing school in three years or mixing college courses with high school courses toward the end of their schooling. For students who are struggling, schools can offer “credit recovery” options or allow extra time to complete or revisit difficult components of a course—offering them flexibility instead of failure (Education Trust, 2005; Kennedy, 2006; Quint, 2006). Districts can address concerns about consistency of such programs across schools by ensuring that all students complete a measurable, designated core curriculum. Schools can allow students extra time to complete core classes, if necessary; students could be on track with, ahead of, or behind their cohort. Administrators can use planning or professional development time already in the calendar to develop and monitor these initiatives.

## New Professional Development Models

Professional development for teachers and school leadership is an essential component of high school reform. Nearly all models have moved away from sending teachers to conferences or single-day forums. Research demonstrates that “sustained and intensive” professional development, activities focused on academic subject matter and hands-on learning, and “collective participation of teachers from the same school, grade or subject” are more likely to have a lasting and positive impact on teachers' classroom performance than are other models (Garet, Porter, Desimone, Birman, & Yoon, 2001, pp. 935–936). Promising practices include developing peer-to-peer networks and mentoring programs, focusing on relevant research in the education field and the means to apply it locally, building on lessons learned locally and nationally, and ensuring that teachers and school leaders have access to coursework for continuing education that is targeted and relevant (Kennedy, 2006; Martinez, 2005). The role of professional development as a tool to energize, attract, and keep quality teachers and administrators is too powerful to ignore.

To address concerns about funding, many school systems have simply reapplied money designated for travel and conference fees under the old model to other techniques that show great potential. Again, use of existing meetings and teacher workdays can free up the time necessary for professional development. In many cases, administrators can designate one meeting per month for these purposes. It is more important for professional development to be focused and ongoing than for it to involve a huge investment of time at any point in a teacher's or an administrator's career (Garet et al., 2001; Kennedy, 2006).

## Engaging the Local Community

Finally, business and community engagement is emerging as a powerful strategy for realigning and reconnecting high schools to the world beyond. Numerous promising models exist; for example, community schools involve the students, families, and community members by offering programs

of interest on campus before, during, and after school hours. Business-school partnerships offer learning opportunities for students and an enthusiastic parttime labor force for businesses. With the new model of career and technical education in high schools, local businesses that support students may look forward to their return as skilled and experienced fulltime employees after graduation from high school or college. Schools, in turn, benefit from the expertise and involvement of local business leaders, who can serve as role models, mentors, and advisors to students. Although research on outcomes of school-community programs is limited, one study of career academies found that the experience had a significant positive impact on the earnings of young men who attended them (Quint, 2006).

As with other reform programs that show great potential, business and community education comes with a price tag in terms of staff and preparation time. It also requires an investment in nurturing and managing appropriate school-business partnerships and programs. In this case, however, the required planning time can be split among interested community members, if the school pursues local funding. Business and community engagement is not easily standardized at the state or national level; however, it offers a model that reflects the unique character of each community and its schools.

## A Brighter Future

Schools and communities nationwide are reacting to rising dropout rates and a disconnect between the relevance of the high school diploma, the requirements of the workforce, and the demands of college. Many high schools and districts are demonstrating promising reform practices at local and state levels, and it's time for national action along the same lines. Practices such as multiple assessments, personalized learning, flexible use of time and structure, professional development for teachers and school leadership, and business and community engagement must be central elements of any comprehensive approach to high school reform.

### High School Reform: A Case Study

What does high school reform look like in practice? Hamilton County, Tenn., has been approaching the problem from a number of angles. For years, the county had used the traditional comprehensive high school model to churn out graduates with one of two types of credentials—a college-prep diploma or a vocational education diploma. Educational leaders in the state recognized that this model was no longer preparing students for success in either work or postsecondary education. So, with help from planning and implementation grants from the Carnegie Foundation, school leaders began creating a new model of high school education.

The first thing leaders reformed was the diploma. All students now prepare to graduate with a single-path diploma; the district eliminated the vocational education diploma, supporting the goal that students exiting high school would need the same skill sets to succeed in work as in postsecondary training or education. Next, to address the problem of students getting lost in their large, comprehensive high schools, Hamilton County set four goals:

- □ Personalizing the high school experience for students.
- □ Providing flexibility for students—moving away from the traditional rigidity of program and schedule.
- □ Implementing rigorous, relevant, and engaging curricula—a boon for students and teachers alike.
- □ Building a professional learning community for teachers and administrators.

A one-size-fits-all reform initiative clearly would not work for this diverse county. Its schools range from urban to rural and small (200 students) to large (1,900 students) and include K–12, 6–12, and 9–12 formats. “It’s not a top-down reform,” says Bill Kennedy, director of Schools for a New Society, a partner with Hamilton County in the effort. “We are learning together and making decisions that are good for our schools and our students.”

For the effort to be successful, one of the first things the county had to do was dispel the longstanding, pervasive competitiveness between its high schools in everything from sports to merit scholarships to ACT scores. Over the past four years, faculty in Hamilton County have transformed the academic competitiveness into a strong collaboration that has fostered a learning community and enhanced professional development and cross-school problem solving. School administrators meet monthly for a half day to discuss current research and how to make it work in their schools. Using structured protocols and processes to review the literature (most recently, reform work in adolescent literacy), they then take their work back to their schools and guide teachers through the same type of forum. Gone are the days of professional development consisting only of going away to a conference—the focus here is on relevance and immediate application to the school environment.

Career academies have been one of the other foundations of the countywide reform effort. Red Bank High School, with strong support from the community, has developed career academies in health and teaching. The community has provided critical funding, internship slots, and business links to make the academies successful. Red Bank's teaching academy was recently named the 2006 National Career Academy of the Year by the National Career Academy Coalition.

Though it's still early in the process, the reform efforts are beginning to pay off. Armed with research that shows that students who fail to complete 9th grade within 12 months are the least likely to graduate, the county has placed a strong emphasis on supporting the transition from 8th to 9th grade to prepare students for a successful 9th grade year. The initial results are promising—the percentage of students completing the move from 9th to 10th grade in one year rose from 81.2 percent in 2004 to 89.1 percent in 2006. Initial results also show improvement in graduation and attendance rates, as well as in scores on the English and math Gateway Tests (Hamilton County Department of Education, 2005).

With parents and students, counselors also look for movement on Tennessee's Gateway Tests (Algebra I, English 10, and Biology) from “proficient” to “advanced” and review ACT scores along with “predictor” tests taken in 8th and 10th grades. Tennessee has aligned its state standards with the ACT, and students achieving a composite score of 21 can attend a state school with a full tuition Tennessee HOPE Scholarship. These metrics—competency at the transition to high school and growth in scores along the way—will provide the ultimate payoff: improved graduation rates and, more importantly, improved competency among graduates for whatever path they choose to take.

For more information on ASCD's High School Reform Proposal, please visit [www.ascd.org/actioncenter](http://www.ascd.org/actioncenter) or contact Dan Fuller, ASCD's public policy director, at [dfuller@ascd.org](mailto:dfuller@ascd.org).

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