

From the Superintendent

Innovation as Ethos

Innovation has become a buzzword in today's educational circles. Because this term surfaces in so many conversations with colleagues, it behooves us to shed some light on what we really mean by the word. I wish to posit that innovation is not just a new program or strategy; rather, in its broadest sense, innovation could and should be a prime example of the adage that the whole is more than the sum of its parts.

To clarify this concept, we tend to think of innovation in terms of single, discrete units. It might take the form of a new curriculum, such as Facing History and Ourselves; or a new technological element, such as interactive touch screens or the Parent Portal; or a new classroom strategy, such as formative assessment or differentiated instruction. In the last issue of *Institute Insights*, I shared some thoughts about the innovative aspects of our student assignment plan. However, even though our professional-development activities and our faculty meeting conversations often focus on these distinct programs and approaches, to be truly effective, innovation must extend much more deeply and broadly into our district ethos or culture.

Historically, many promising innovations have failed when the attempt was made to expand them to multiple classrooms/schools/districts because the innovations were done incompletely, without coherence, or in isolation from other important and interconnected variables. Closing the disparities in achievement and improving performance outcomes for all students is a complex business, and our only hope for success is through a well-crafted strategic plan to implement a coherent and intricate set of reforms simultaneously and in concert.

We know that student success is influenced by effective teaching; strong school leadership; equitable access to an engaging, challenging, inquiry-based curriculum; collaborative professional culture; diagnostic, formative assessment; supportive, culturally responsive classrooms and school environments; strong student relationships with supportive adults; early intervention; and co-

ordinated, family-based, social service supports. Many districts have invested in one or more of these strategies, but none has done them all in concert. Yet that cohesive and comprehensive approach is what is needed for real impact—and that is what we are undertaking here in Jefferson County Public Schools (JCPS). What is innovative about this idea is the very notion that such a comprehensive approach would even be attempted—let alone successfully implemented at scale—in a large, diverse, urban district.

For example, at the high school level, there is ample evidence that an approach combining rigorous and engaging course content, choice schools with career themes, college counseling, one-to-one supportive adult-student relationships, schedules that allow depth of instruction, and improved school and professional culture can have a dramatic impact on student achievement and persistence, while lowering dropout rates. Doing all of this coherently and with depth across our 23 high schools is a bold and innovative move. It demands significant internal coherence and commitment from every member of our high school staff and leadership team.

Assessment is another area that has demanded an innovative approach. While I fully support the development of clear, rigorous, nationally validated assessments—especially if they are designed to measure progress toward key twenty-first-century skills, such as problem solving, critical thinking, and applying domain-specific concepts in novel situations—the vast majority of state-developed and state-adopted tests do not rise to that level of rigor. Accordingly, we have made a districtwide commitment to employ balanced assessment techniques, with an emphasis on formative assessment. Many of you have been involved in intensive professional development on this topic over the past year. Well-regarded research studies strongly support the premise that “just-in-time” assessment, coupled with immediate feedback to learners, has the greatest potential for advancing student learning. We are striving to ensure that classroom-level

Continued on page two

A Message From the Executive Director

What If?

What if we could more precisely identify where each student was along the pathway to learning?

What if we could be more accurate at sorting out the nuances in his or her gaps in understanding? **What if** we focused most of our assessment

attention on becoming better at interpreting daily data from regular class work and used that evidence to help students move their own learning forward? **What if** we shifted the balance of our assessment attention from the summative to the formative—assessment that can be used every day to support learning? I think we would become better at seeing the whole student and responding to his or her individual needs. In the end, students would perform better on the consequential tests.

Clear standards are important, but they are broad system goals rather than individually prescribed learning targets. In order to advance each student's learning, we need to find just the right level of demand that is challenging enough to keep learning moving forward without causing students to shut down. That requires detailed, periodic—if not daily—check-ins on the intricacies of student understanding and progress. These check-ins are then used to make finely tuned instructional adjustments. I am not arguing for inserting more frequent assessments in order to predict student achievement on summative tests. Doing so would just add a scoring burden on busy teachers without producing a student learning benefit. Rather, I want to make the case for teachers and students learning from the work they are already doing.

To accomplish this, we need to invest resources and time in formative assessment.

Continued on page three



From the Superintendent

Continued from page one

instructional decision making is based on diagnostic use of student work and that interim assessments provide formative feedback to students. We have taken the opportunity to work with nationally recognized expert Dr. Rick Stiggins, with the developers of our science curriculum, and with the Gates Foundation to make balanced assessment a central focus of professional development so that we can advance this effort.

We also recognize that in order for successful, innovative practices to be introduced, shared, implemented, and refined, teachers need dedicated time. They need the support of well-prepared facilitators with deep knowledge of both subject-area content and pedagogical content. To assist teachers to grow within their existing professional environments, JCPS is striving to implement a variety of approaches, such as common planning time for teachers to work together on lesson design and the analysis of student work. In addition, we need to provide teachers with the support of resource teachers who offer high-quality, embedded professional development and in-class coaching; greater instructional support from principals; and opportunities for mentorship of new teachers and other forms of leadership within the school. The goal is to build a collaborative, professional culture that leads to the overall improvement of skills among the entire faculty and the confidence to tackle innovative classroom practices.

A substantial body of research finds that to be effective, schools need to attend not only to academic rigor and support but also to students' social and emotional needs. When students are in classroom and school communities that are caring and culturally responsive, the students build strong connections with their peers, with adults, and with their schools. As a result, students perceive their schools as safe and caring environments and are comfortable taking risks and making mistakes as they work to refine their skills, extend their knowledge, and develop their understanding.

Creating caring classrooms and school communities is about more than good manners and being polite. It requires that we teach our students how to take the perspective of another, find common ground among competing positions, and resolve conflicts in a positive manner. It also requires us to shift our classroom management approach from one of adults directing student interactions to adults teaching students how to make socially responsible decisions that will facili-

tate students' understanding, nurture a sense of community within the classroom, and build upon students' cultural roots. In JCPS, we are employing a variety of innovative practices—such as CARE for Kids, freshman academies, high school advisory programs, peer mediation, the Facing History and Ourselves curriculum, service learning, civic engagement projects, and cultural competence training—to ensure that we provide an environment where students and teachers feel secure and respected and where innovation can thrive.

Finally, the point of innovation is not newness for its own sake. In fact, we must guard against our characteristically American propensity to be enamored of any material or strategy that is new. "New" does not necessarily equate to "better," and in education there are no silver bullets. In order to help our students attain better outcomes for life-long pursuits, we need to analyze more than standardized test scores. We also need to focus on the **processes** we believe will lead to success.

As we focus on the innovative construction of a comprehensive, cohesive, and dynamic district culture, I believe it is important to target our improvement efforts on six key processes at the classroom level:

- Are clear, student-friendly learning targets articulated?
- Does the classroom environment provide evidence that a high level of challenge is standard?
- Are each student's needs recognized through a diagnostic review of student work, and is each student responded to with personalized feedback?
- Are all students engaged in actively struggling with interesting problems?
- Is there evidence of a strong, supportive, culturally responsive classroom culture?
- Is there time set aside for—and do teachers engage in— professional collaboration?

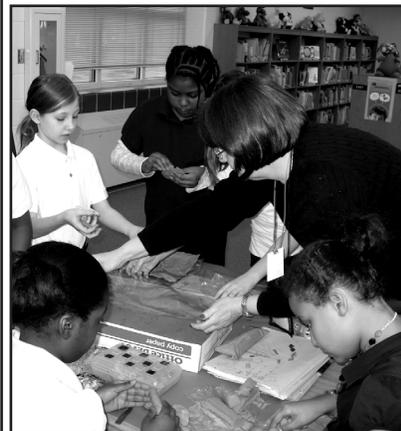
I encourage our instructional staff to keep these processes in mind as we work to achieve our district goals. Meanwhile, I applaud every teacher, every principal, every employee who is taking a risk to develop new skills and implement new practices. Please turn to your colleagues for support as together we build a district ethos that is infused with, and buoyed by, the spirit of innovation.



Sheldon H. Berman, Ed.D.
Superintendent

Creativity and Innovation Boosts Learning

Inquiry-based learning is happening at Maupin Elementary. The Project-Based Learning component of the Creativity and Innovations magnet is based upon the principles of student choice, demonstrating learning through the multiple intelligences, and the value of student engagement. Maupin's fourth- and fifth-grade students began the year exploring the learning process by focusing on a topic with a guiding question, identifying tools for research and learning, using technology to gather data, and organizing information. The students were then



immersed in new ideas and concepts through

field-based experiences in the community. After selecting a topic of their choice, students spent several months delving into research and creating a learning project to demonstrate their depth of knowledge. Projects ranged from plays to sculptures, from music and dance to PowerPoint presentations. The projects were showcased for parents and guests at the Project Learning Showcase, which was held on February 5 in the school gymnasium.

What If?



Continued from page one

We can learn much from how medicine approaches issues.

Cardiologists often prescribe blood thinners to reduce the likelihood of clots following surgery, making their best judgments about the correct dosage. They need to get it just right to avoid life-threatening clots or hemorrhaging. However, they then perform regular pro-thrombin timing tests to monitor the patient and make dosage and frequency adjustments. Although the doctors may have a commanding knowledge of the administration of the drug, they know each patient responds differently. They know the general trajectory of recovery from research and experience but not the intricacies or variation in the paths that each patient will follow. We need to think about teaching in the same way. The personal variables are no less complex, and the educational treatments are often similarly multifaceted.

Educational research and classroom knowledge are beginning to reveal typical, topic-specific learning trajectories, which have come to be known as learning progressions. Effective teachers have deep knowledge of these learning progressions, or pedagogical content knowledge, as well as knowledge of how an individual student may vary from what is typical. Because this knowledge is highly contextualized, the best measures of student learning are embedded in regular class work so that assessment activities are “essentially indistinguishable from instructional activities, but can generate immediate feedback to teachers and students about performance, as well as reports for teachers, students, and parents detailing progress relative to expectations.” (Kennedy, Wilson, 2007)

Formative assessment means precise diagnosis that leads to the next steps that move each student’s learning forward. The first step is to identify clear learning targets. Framing learning targets as questions makes learning more active so students are attempting to solve a problem rather than learning an adult-driven goal. However, before designing instruction, effective teachers—like doctors—tune into individual students and anticipate potential confusions, partial understandings, and misconceptions students might have. After making well-informed plans, effective teachers check in on how students are doing. This includes examining where their students are at the moment and where the students are along the anticipated path to understanding. The precision of the check-in is critical, but so is the next step adjustment. The doctor doesn’t

just do the clotting test but also makes a personal observation of the patient and adjustments in the medication in relation to other tests. Teaching is no different. Subsequent instructional steps should be based on interpretation of data and experienced clinical judgment.

Consultation and Collaboration

Continuing the medical analogy, modern medicine does not rely on the perspective of one doctor. Neither should instruction. Several years ago, my wife had occasion to land in the emergency room after preparation for a routine procedure suddenly made her feel very ill. At intake, she mentioned some pain in her chest. She then experienced—or from her perspective, endured—several hours of tests from a variety of specialists, which included answering the same diagnostic questions from multiple people, the answers to which had already been recorded in her chart. However, this was not accidental or due to a lack of communication. Strong evidence depends on interpretation of reliable data! The doctors were verifying by being thorough and by not relying on one test or one diagnostician. My point is that diagnosis of students’ understanding and progress and teachers’ judgments regarding instructional adjustments should not be done in isolation or without multiple sources of information. Colleagues bring valuable multiple perspectives.

Patients do not just rely on medication or a doctor’s diagnosis but provide feedback to the doctor and assist in their own treatment. The same is true with students. They must participate in their own assessment and assume responsibility for their own learning. However, unlike physicians, teachers do not interact with students one at a time in a private treatment room. The social basis and goals of learning, not to mention funding, demand that we teach groups of students in classrooms. Learning is profoundly social and individual. Lessons are complex orchestrations, and it is impossible to get continuous data on every student. Formative assessment is not akin to trying to watch all of the heart rhythm, blood pressure, and temperature monitors in an entire postoperative recovery room at the same time. Practicality suggests that we need to strategically select rich opportunities to check in on students. These opportunities should be designed to provide broad access to learning and to reveal the range of student thinking. A stress test is designed to diagnose cardiac and pulmonary function across a range of conditions for a range of patients. In a sense, the test

has multiple entry and exit points that can be individually adjusted as needed. Most importantly, the test is structured in order to push limits and responses. Doctors have knowledge of the meaning of responses at different points. They may follow up with further testing. In the same way, effective classroom assessment is designed to push students’ limits, revealing their understanding across a range of challenge levels.

Listen to Students

Good doctors, after deciding on a course of treatment, ask their patients how they feel. When I had rotator cuff surgery, the subsequent treatment had interacting components. My progress was based on various manipulations that the physical therapist performed on my shoulder **and** the exercises that were my responsibility to do at home. I was asked how I felt and whether and how I did my exercises. We each made adjustments based on feedback from one another. Effective instruction has the same dynamic. The therapist had knowledge of how I should progress from years of experience, but I knew how I felt. The truth is that sometimes the exercises hurt. I kept going because I believed that the hard work would pay off. Sometimes, we forget to ask students about their own progress, or we forget that they may not have the confidence to know that hard work will pay off. However, unlike the therapist’s pulling, massaging, and twisting of my shoulder, which had a healing effect, adults cannot make students understand through instruction and curricula. Only students can construct understanding. Patients who are better attuned to their own bodies give better feedback so that doctors can make more precise treatment plans. We need to design instruction, assessment, and classroom culture so that students become more attuned to their own learning. This metacognition requires time and practice and for students to be clear about where their learning is headed, where they are along the way, as well as targeted feedback about how to move forward.

Less focus on summative assessment of learning and more focus on daily, embedded formative assessment will help us reclaim the central role of teachers and the art of teaching that I think has been deemphasized by the focus on summative testing and Adequate Yearly Progress. Research that compares the relative effects on posttest student performance from grades, grades with comments, and comments alone suggests that summative judgments, even when accompa-

Continued on page four

Gheens Institute for Innovation Announces 2010 Creativity and Entrepreneurship Award Applications

The Gheens Institute for Innovation promotes innovative programs, projects, and activities within JCPS. The Gheens Institute for Innovation Creativity and Entrepreneurship Awards recognize practices that exemplify creativity, innovation, and social and/or academic entrepreneurship both in and out of the classroom. The awards are available in two categories:

- **Inspiration Award**—These awards honor individuals who have designed and implemented an innovative program, practice, or strategy within the past **five** years. Each winner receives \$1,000.
- **Visionary Award**—These awards

honor teams of individuals who have collaborated to design and implement an innovative program, practice, or strategy within the past **five** years. Each team receives \$2,500.

Monetary awards must be used by the individual or team to sustain the program, practice, or activity.

Any individual and/or team of individuals currently employed by JCPS may apply (e.g., central office administrators, principals, counselors, teachers, instructional assistants, classified support personnel, facility and transportation staff, food service staff,

curriculum and instruction support staff, professional-development staff, and/or a combination of the above).

The application period is **February 1** through **April 1, 2010**. A maximum of eight individual and/or team awards will be given annually. Winners will be announced in fall 2010.

Apply online at <https://apps.jcpsky.net/GheensInstituteAwards/>. For more information, call **485-7633**.

Insights Into Innovation Recommended Reading List

The following books are available in the Professional Library at JCPS Gheens Academy:

The Art of Innovation: Lessons in Creativity from IDEO, America's Leading Design Firm by Tom Kelley (Doubleday, c2001)

IDEO reveals its secrets for fostering a culture and process of continuous innovation. Based on the belief that everyone can be creative, IDEO fosters an atmosphere conducive to freely expressing ideas, breaking the rules, and freeing people to design their own work environments. A focus on teamwork generates countless breakthroughs, fueled by the constant give-and-take among people ready to share ideas and reap the benefits of the group process.

Disrupting Class: How Disruptive Innovation Will Change the Way the World Learns by Clayton M. Christiansen, Michael B. Horn, and Curtis W. Johnson (McGraw-Hill, c2008)

According to studies in neuroscience, the way we learn doesn't always match up with the way we are taught. If we hope to stay competitive—academically, economically, and technologically—we need to rethink our understanding of intelligence, reevaluate our educational system, and reinvigorate our commitment to learning. The authors take one of the most important issues of our time—education—and apply Christensen's theories of disruptive change by using a wide range of real-life examples.

Fires in the Middle School Bathroom: Advice for Teachers from Middle Schoolers by Kathleen Cushman and Laura Rogers (The New Press, c2008)

What do middle schoolers wish teachers knew about them and how they best learn? Providing a window into the world of early adolescence, diverse student voices offer teachers insight into how their best practices actually play out as students change and develop, day by day, in the middle grades classroom.

Five Minds for the Future by Howard Gardner (Harvard Business Press, 2008)

We each need to master the "five minds" that the fast-paced future will demand—from minds able to synthesize and communicate complex ideas to minds that can respect human differences and fulfill the higher responsibilities of work life and citizenship. *Five Minds* provides valuable tools for those who are looking ahead to the next generation of leaders—and for each person who strives to excel in an increasingly complex world.

Innovation at the Speed of Laughter by John Sweeney (Aerialist Press, c2004)

Explore unexpected ways in which the tools of improvisational comedy can improve business performance. Combining insights as a successful businessman with his expertise as a performer, the author reveals eight secrets to jump-starting workplace creativity and corporate ideation. Secrets include Accepting All Ideas, Creating a Statusless Environment, and Perceiving Change as Fuel.

What If?

Continued from page three

nied by comments intended to help, are far less effective than helpful guiding comments alone in motivating students and increasing their learning. It may be that summative and formative assessments have that same relationship on effective teaching. A focus on formative assessment and its key component—feedback to students—will shift our perspective on diagnostic data from a source of judgment to a source of information for improvement.

I have tried to articulate what I consider challenging, aspirational goals. Achieving all of them will be a long-term effort of shared learning and responsibility among teachers, principals, school systems, curriculum developers, psychometricians, and policy makers at all levels. Most importantly, it will require time for teachers to collaborate to share ideas and practice. However, I believe that this balanced view, with an emphasis on classroom assessment, gives us a direction and points us toward small steps we all can begin to take on the journey.



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