

Best Practices Newsletter

This newsletter describes best practices presented at the 32nd Annual HSTW Staff Development Conference in Orlando, Florida, July 2018.

SUBSCRIBE

IN THIS EDITION

- [Developing CTE Programs Based on Industry and Postsecondary Needs](#)
- [Teachers Learning From Teachers](#)
- [Team Teaching for the 21st Century](#)
- [Implementing Math Practices That Work](#)
- [Penta Career Center: Using Data to Improve Instruction](#)
- [Changing School Culture by Increasing Student Engagement](#)
- [Six Tech Tools You Can Use in the Classroom](#)



Brian Noller, Director of Northland Career Center in Platte City, Missouri, is interviewed at the 32nd Annual High Schools That Work Staff Development Conference in Orlando, Florida.

Developing CTE Programs Based on Industry and Postsecondary Needs

“College, career and life ready.” That’s the motto of **Northland Career Center in Platte City, Missouri**. NCC won a 2018 James E. Bottoms Pacesetter School award at the High Schools That Work Staff Development Conference in recognition of the strong relationships it maintains with over 400 business partners in the community.

“Our partnership and work-based learning model got us this award,” confirms Brian Noller, the center’s director. “And that model grew from the vision and leadership of Lisa Savala, NCC’s assistant director.” NCC’s partners have helped the center adopt new career pathway programs and offer more hands-on learning experiences that empower students to explore postsecondary and career options.

Beyond providing equipment and funding supports, business partners advise on curricula, contribute to project-based assignments, conduct mock interviews, mentor students and offer field trips, job shadows and internships. Business partners also sponsor multiweek teacher externships that help NCC instructors stay up to date on industry trends. Dedicated NCC staff support work-based learning, placements and partnerships.

Continuous improvement strategies — like [Plan-Do-Study-Act](#) and the [Malcolm Baldrige Criteria for Performance Excellence](#) — provide the tools needed to redesign classroom learning experiences, retool NCC’s career pathways and market those pathways to students and parents.

Noller and his team took a data-driven, collaborative approach to updating NCC’s programs by studying regional and national labor market data, engaging business partners, involving regional postsecondary institutions and surveying students about their interests. They also consulted sending-school district superintendents and another regional career pathway provider, the Northland Center for Advanced Professional Studies (Northland CAPS), to ensure that NCC did not duplicate programs in other schools.

“NCC is modeling what business and industry do to adapt to economic and labor market changes.”

— Janice Rehak, Coordinator, Office of College and Career Readiness, Missouri Department of Elementary & Secondary Education

“It works better for all students when NCC and Northland CAPS work together to create a vision and strategy with our regional stakeholders,” says Noller.

“Agility is what’s needed,” Noller continued. “If we’re not agile, someone else will offer the program that business and industry needs. But if your center wants real buy-in, you have to give your local stakeholders ownership of your programs. We are engaging local business and industry and superintendents.”

NCC revamped five programs with updated curricula and new names that reflect labor market demand for high-skill, high-wage jobs. It also adopted three new pathway programs in Agricultural Sciences, Aviation Technology and Production Technologies.

Rising enrollments — from 249 students in 2011-12 to 416 in 2018-19 — show the success of NCC’s approach.

NCC’s Pathway Programs in Action

True to its motto, NCC’s new and revised pathways blend college- and career-preparatory learning experiences. NCC’s health science pathway prepares students for Missouri’s Certified Nursing Assistant exam. Health science teachers partner with English teachers to design lessons that strengthen students’ literacy skills. Students learn how to update patients’ medical charts, write resumes and prepare for interviews while rotating through clinical experiences in five nursing homes.

Employability skills are an essential component of every NCC pathway. Participating in the [National Technology Centers That Work Leaders’ Forum](#) gave NCC a process for evaluating and improving how these skills are taught. Every three weeks, instructional data teams assess students’ skills. NCC’s facilitation team uses their results to provide extra feedback and coaching to teachers who need support in helping students meet employability skill standards.

PROMOTING THE PROGRAM

As a self-described “marketing guy,” Noller saw the need to aggressively promote NCC’s programs to students and parents. To keep costs low, NCC sponsored a design competition to create new program logos and slogans and recruited a teacher’s spouse to produce [dynamic informational videos](#) for its [website](#) and [YouTube channel](#).

“I have the most amazing marketing team. They’ve taken an innovative, efficient approach to marketing our programs across our region with a minimal budget,” says Noller.

NCC advertises how students can earn college credits on its website and in promotional materials. For example, production technologies students can graduate with 24 credits and a postsecondary certificate from Metropolitan Community College plus a Manufacturing Technician 1 (MT1) credential from the Manufacturing Skills Institute. With these credentials, students can get jobs that pay \$35,000 per year or more and earn an associate degree within one year of graduating.

NCC is in the process of developing an apprenticeship program in production technologies that gives students a jump-start on postsecondary credentials and 4,500 hours of work experience. Sponsoring employers will not only cover the cost of postsecondary courses but also offer well-paying jobs. NCC’s partnership with MCC has helped Noller and his team develop postsecondary credential-earning opportunities for NCC students.

“Parents have often been persuaded that only four-year college degrees will help their children get a good job, even when those degrees put them in debt,” says Noller. He believes that outreach efforts like videos, open houses and tours can show students and parents that NCC offers a low-cost way for students to secure highly valued postsecondary credentials and degrees and lucrative careers.

WORDS OF ADVICE

Noller advises that it’s never too early to start the process of visioning, developing and marketing career pathway programs. He urges high schools or technology centers engaged in similar efforts to involve business and industry and superintendents in owning career pathways, identify employer partners who will commit to building pathways, engaging with students and interviewing graduates, and recognize and reward those partners for their contributions.

Contact(s): Brian Noller: nollerb@platteco.k12.mo.us

“I work with an amazing staff that lives NCC’s values and supports its mission. We would also not be where we are today without the support of our administration, school board and institutional advisory board. People make the difference.”

— Brian Noller, NCC Director

Teachers Learning From Teachers

Instructional rounds can have an immeasurable impact on improving teachers' instructional practices and student engagement. They involve teachers observing other teachers in a systematic, purposeful and focused way. "It's similar to doctors performing medical rounds where they observe each other and collaborate," says Shondra Whitaker, assistant principal of **Pike County High School in Brundidge, Alabama**.

The school began instructional rounds in the 2017-18 school year and initially, teachers bristled at the mere suggestion. Many were nervous because they associated classroom observations with evaluations. To ease concerns, "before the rounds, we made sure every teacher understood it was not an evaluation," says Whitaker. They emphasized the goal of the observation was not to provide feedback to the teacher being observed, but for the observing teacher to identify and learn new strategies. Administrators described the instructional rounds as part of a collaborative effort to address a schoolwide problem of practice.

Getting Started

In the case of PCH, the faculty identified poor student engagement as a problem of practice they wanted to understand more deeply. "While teachers were 100 percent invested in the classroom, we felt that students were not reciprocating fully," says Whitaker. New teaching strategies that boost student engagement were needed.

Administrators realized that having teachers observe other teachers in action would add a fresh perspective and a wealth of new ideas. Whitaker notes, "We have some very talented teachers. We have a lot of great things going on here, but we needed a way for everybody to be able to see and build upon those practices."

To get started, teachers involved in the instructional rounds were divided into groups of two or three according to their planning times. Sometimes the classrooms with high student engagement were selected for observations, and at other times, classrooms with lower student engagement were selected, mostly for comparison purposes.



PCH Instructional Rounds Approach

Teachers involved in the instructional rounds followed a protocol, which included:

- Identify the problem of practice (e.g., Low student engagement)
- Observe classrooms (About 25 minutes)
- Take notes (Focus on students and their tasks)
- Gather descriptive data (What are students being asked to do? What types of questions are asked? Who is doing the most talking in the classroom?)

PCH teacher Carrie McLaney's instructional rounds group was comprised of an art, science and physical education teacher. They observed classrooms with a specific task: Notice the amount of time students talked compared to the amount of time that teachers talked. "I observed one teacher who kept asking students for their thoughts, and her students seemed particularly engaged," says McLaney.

Conversely, "When teachers do most of the talking in the classroom, student engagement tends to be low," notes Whitaker. The teachers involved in the instructional rounds experienced that firsthand. It's easy to let your mind wander when teachers are doing all the talking, she explains. "It was a really good wake-up call for teachers to be the ones doing the listening in the classroom."

Debriefing

Once the instructional rounds are complete, teachers collaborate and compare observational data. In this example, teachers discussed two or three things that stood out during the classroom visit and wrote them on sticky notes. Each teacher put their notes on chart paper; then they moved the notes around to see if they could detect patterns in their observations.

Whitaker says the findings are used to identify the next levels of work. "We would say, 'Knowing this, what do we need to do as a school to make progress?' 'What information or training do we need to make progress?' 'What do we need to do in areas where we see patterns of low engagement?'" One thing Whitaker ensures they don't do is go back to the teachers being observed and give feedback on their weaknesses or strengths.

Unintended but Welcomed Benefits

Whitaker says it's too soon to say to what degree the instructional rounds have had an impact on student engagement, but she notes the positive impact on teachers and the school improvement effort overall. The instructional rounds provide teachers who may not have strength in a particular area with opportunities to witness successful practices. Perhaps just as important, the process helps teachers identify practices to avoid.

Teachers are also forming more collaborative relationships, says Whitaker. They are no longer uneasy about other teachers visiting their classrooms — quite the contrary; they're excited about it. And that makes for a rich learning environment where everyone can be successful.

Administrators Learning From Teachers

To help empower teachers with the best instructional practices, the **Alamance-Burlington School System in Burlington, North Carolina**, implemented learning walks to identify high-impact instructional practices in schools throughout the district, which serves 22,000 students.

Administrators were first to take part in the learning walks, followed by academic coaches. Like instructional rounds, learning walks are not used to evaluate teachers, instead “the walker is the learner,” says Jodi Hofberg, a secondary math specialist in the district.

Alamance-Burlington district started learning walks in the 2017-18 school year. The district identified six focus areas: 1) management of a digital learning classroom, 2) using technology to differentiate learning, 3) content and instruction, 4) the four Cs (communication, creativity, collaboration, critical thinking), 5) meaningful questioning and 6) student ownership of learning.

Administrators signed up for the group that interested them most; the maximum number in a group was seven. They took part in vertical learning walks — visiting elementary, middle grades and high school classrooms across the district, with the goal of “calibrating what you're seeing in a classroom,” notes Hofberg, and supporting schools to meet instructional goals.

Alamance-Burlington School System Administrators' Learning Walks

- Form groups of no more than seven based on focus-area interests.
- Educate staff about what learning walks are.
- Orientate walkers about the dos and don'ts of learning walks.
- Observe classrooms for 7-10 minutes.
- Observe with an eye toward good instructional practices, not teacher evaluation.
- Examine artifacts and student work.
- Debrief in the hallway.
- Identify best practices and take back to schools.

Focus Area: Meaningful Questioning in Math Classrooms



Alamance-Burlington academic coaches debrief after learning walk.

Hofberg highlighted one group of academic coaches whose focus area centered on meaningful questioning. One reason the school selected questioning as a focus area is because SREB's Mathematics Design Collaborative survey data showed opportunities for growth.

The survey revealed students' perception of the experiences they had in classrooms where teachers used the **MDC** instructional practices and received coaching from SREB. Across the district, six schools implemented the MDC framework, and five participated in the student survey. It asked students to respond to statements such as: “My teacher asks questions in class that make me think about the information we're learning,” or “When we go over a problem, my teacher asks me to discuss how I came up with my answer.”

“Some teachers thought they were teaching the goal. But if 80 percent of students say they didn't get that material, then teachers realize they're not communicating like they thought they were,” says Robin Marcus, an independent math consultant who collaborates with SREB and the district around MDC strategies.

Hofberg said through learning walks, administrators and academic coaches identified practices that would help teachers increase rigor in their math classrooms; show teachers the benefits of allowing time for students to productively struggle and come up with answers to questions on their own rather than teachers giving them the answers at the first sign of struggle. After observing classrooms, the administrators take the practices back to their schools for implementation.

Benefits of Learning Walks

The MDC student survey rates answers on a five-point response scale; five equals strong performance. Data reveal teachers' questioning practices are apparently paying off. In the 2017-18 school year, the district's average score in the category of questioning and feedback was 3.65 compared to 3.15 the year before.

According to Hofberg, another benefit is that once schools saw the district doing learning walks, they started initiating the walks as a practice at the school level. Teachers began visiting other teachers' classrooms during their planning period, and they began to realize not everybody teaches the way they do, and there are many powerful practices that they can take away and use in their own classrooms. "It's all about changing practice, a growth mindset, reflective culture, open-door policy and building trust," says Hofberg.

Contact(s): Shondra Whitaker: swhitaker@pikecountyschools.com; **Carrie McLaney:** cmclaney@pikecountyschools.com; **Jodi Hofberg:** jodi_hofberg@abss.k12.nc.us; **Robin Marcus:** rmmarcus@gmail.com

Team Teaching for the 21st Century

Taking part in mock job interviews, researching colleges, learning to be accountable by punching a time clock — these are not the typical skills one might expect seniors to learn in their English class. But two teachers at **Hoke County High School in Raeford, North Carolina**, teamed up to design their English IV curriculum to include such skills to better prepare students to meet the district's goal: ensure students graduate college and career ready, globally competitive and prepared for life in the 21st century.

According to educators Karrie Andersch and Ruth Herbert, their team-teaching strategy helped advance student achievement and resulted in a 23 percent increase in the graduation rate from 2016-18 and 1,244 industry-recognized credentials earned by students in 2017.

Research conducted by Harvard University and the Carnegie Foundation concluded that 85 percent of job success comes from having well-developed interpersonal and social skills (soft skills), and only 15 percent of job success comes from technical skills and knowledge (hard skills). This informed Andersch and Herbert's practice to not only teach the English IV curriculum, but also use the course to help seniors attain scholarships to college or trade school, enlist in the military and obtain livable wage jobs right out of high school by developing their soft skills, also called 21st century skills.



Karrie Andersch and Ruth Herbert, Teachers, Hoke County High School

English IV and the 21st Century Readiness Project

Herbert explains, "We took the North Carolina standards we are expected to teach and enhanced our curriculum to include 21st century skills. For example, when I teach literature, we study the **Six Pillars of Character**. From the text, students are learning about these character values — trustworthiness, respect, responsibility, fairness, caring, citizenship — to enhance soft skills to be successful in the real world."

"In my classes, we do the 21st century readiness project," says Andersch. "The students start with an interest survey for their careers. They research colleges and their desired jobs. What are the job openings, the education and soft skill requirements? I teach them how to write a resume and I approve it before they use it."

Putting Skills to Work

• SCHOLARSHIPS

"As part of my class, students complete college applications, research scholarship opportunities and complete scholarship forms," says Andersch. These activities meet student needs and North Carolina content standards for research and informational text.

Result: Hoke County High School students earned \$5.1 million in scholarships in 2016, \$9.6 million in 2017 and an astounding \$26.5 million in scholarships in 2018.

- **ACT WORKKEYS**

Andersch and Herbert's students take [WorkKeys](#) assessments, tests employers rely on to measure a candidate's workplace skills and to help them hire, train and promote the most qualified candidates. A Platinum WorkKeys credential indicates that person can do 99 percent of jobs in the marketplace, Herbert says.

Result: Last year, Hoke County High School students earned 22 Platinum WorkKeys. That is more than any school in the entire state and the first awarded in Hoke County.

- **EMPLOYMENT THROUGH INTERNSHIPS**

In Andersch's class, students practice time management and learn about accountability. "They have time cards. If they want to use the restroom, they must clock in and clock out. It teaches them about productivity," Andersch says. Students learn the behaviors employers recognize as trustworthy and productive.

Result: Nineteen students earned job offers during their internship.

- **EMPLOYMENT THROUGH JOB FAIRS**

Local employers such as Walmart, Food Lion, Pepsi, Smithfield, Unilever and Cheerwine recruit students from job fairs. Andersch and Herbert prepare their students by practicing verbal communication in mock interviews. Students must also wear proper attire. "They must dress professionally for guest speakers and interviews. Individuals and community organizations donate professional clothes to the school, so we can remove that obstacle for students," explains Andersch.

Result: Over 20 students earned job offers at the job fair.

- **MILITARY**

Herbert also prepares her students for the ASVAB (Armed Services Vocational Aptitude Battery), which is believed to be an indicator of ACT and SAT test scores. All students are required to test, and it is available at no cost. Herbert also uses the ASVAB Career Exploration Program, which empowers students to discover their strengths and interests and map out postsecondary plans.

Result: Over 12 percent of the 2018 class enlisted into a military branch.



Why It Works

Herbert says, "We are living in a 'selfie' culture. Why not use that in teaching? We make the education about them. They're still doing all the reading and they're doing more writing. They're doing it because they see a purpose. If you write for an hour and get a \$1,000 scholarship, you're going to be motivated to write for another hour. Students take ownership in writing and research that they feel is valuable and can affect their future," she adds.

Informational text was a large part of the Measure of School Learning exam that measured teacher effectiveness in North Carolina. "Three years ago, students scored the lowest on the informational text section, and last year it was their highest scoring section. I think it's because they are reading about their careers. There is a much higher level of reading than other subjects because they want to find out how to get the future they want," Andersch explains.

Contact(s): Karrie Andersch: kandersch@hcs.k12.nc.us; Ruth Herbert: rherbert@hcs.k12.nc.us

Implementing Math Practices That Work

The Southern Regional Education Board's powerful math practices are "a vehicle for change," says Michelle Dillard, assistant superintendent for middle schools in **Jefferson County Public Schools in Louisville, Kentucky**. In 2014, the district set out on a five-year journey to implement the math teaching and learning strategies districtwide.

Jefferson County is comprised of 172 schools in which 120 languages are spoken, and 62 percent of students are eligible for free- or reduced-price meals. Its 2020 vision statement is *Excellence with Equity*. With that in mind, a primary mission in the district is to ensure every student meets or exceeds state math standards. JCPS collaborated with SREB in this endeavor.

SREB partners with districts, principals, local trainers and classroom teachers to significantly increase the percentage of students meeting college- and career-readiness standards. Key to SREB's approach is ensuring students acquire the foundational literacy and math skills necessary for success in postsecondary education and the workforce.

SREB provides professional development in powerful math practices, which have a foundation in the Mathematics Design Collaborative, to help teachers shift instruction from a procedural, test-prep approach to a balanced approach in which students learn how to apply math concepts to solve complex, abstract and real-world problems.

SREB's math professional development supports teachers to:

- Ask relevant assessment questions.
- Analyze and address major misunderstandings.
- Adopt a student-centered approach that creates substantial gains in math achievement.
- Design re-engagement lessons that help students understand and master math concepts.
- Use formative assessment lessons to reveal students' understanding and misconceptions and adapt instruction to address students' learning needs.

Jefferson County's Five-Year Math Journey

Year 1: 2014-15 — JCPS partnered with SREB to implement the Mathematics Design Collaborative strategies in 10 middle grades schools. Thirty-seven teachers received coaching. One of the biggest challenges was buy-in. Teachers thought it was just another thing to do.

Year 2: 2015-16 — Sixty-four new teachers received coaching using the math strategies, bringing the overall total to 95 teachers trained and implementation in 15 middle grades schools. Twelve thousand students were impacted.

Year 3: 2016-17 — This school year began a new phase for districtwide growth. The math strategies and professional development spread to elementary and high schools. Two high schools participated in a pilot program, and six elementary schools focused on training school-level coaches. Altogether, 41 new teachers were added to the professional development training, totaling approximately 150 math teachers and impacting over 16,000 students.

"The professional development focused on shifting the strategies in MDC to daily practice instead of it being an event," says Stacy Justus, the county's high school math instructional lead.

Year 4: 2017-18 — In phase four, the goal was to sustain and grow. Ten new elementary schools began implementing the math strategies in grades three through five, and seven new high schools were brought on board. The emphasis was still on incorporating MDC strategies as part of daily practice.



Stacy Justus, High School Math Instructional Lead, Sara Downs, Middle Grades Math Instructional Lead, Jefferson County Public Schools



Jefferson County Public Schools new teacher math training

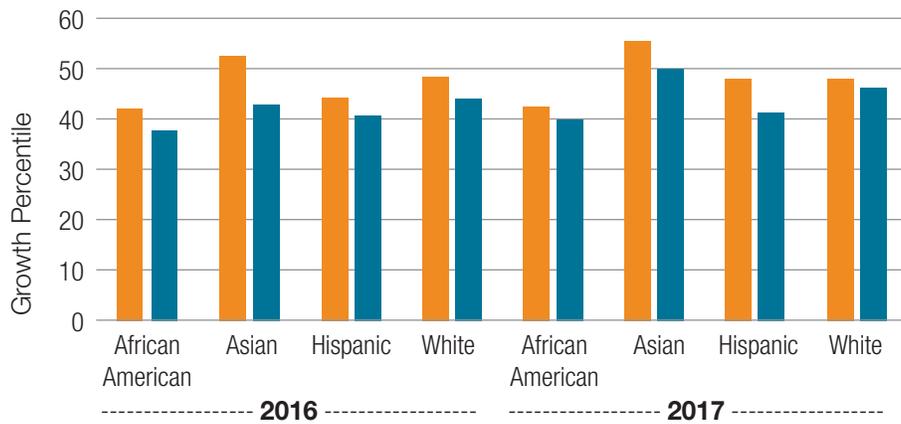
Year 5: 2018-19 — This school year marks a crucial turning point for Jefferson County Schools as it builds an instructional framework to support its 2020 vision. The new framework will use powerful math practices as a foundation in conjunction with other initiatives and best practices for mathematical learning and teaching.

SREB's PMPs "help bring a well-rounded approach to teaching math," says Justus. Before assuming her leadership position, Justus used the PMPs in her classroom and says they "helped me to formatively assess where my kids are on higher-level questioning and higher-level tasks. It helps me assess whether I'm doing good teaching in the first place."

Sara Downs, one-time teacher and now middle grades math instructional lead says, "I saw it as something I had always been looking for but could never find or develop on my own. It allowed students to productively struggle and play with math — investigate and explore."

KENTUCKY ASSESSMENT DATA

MDC versus Control Group by Race



RACE	MDC	CONTROL
2016		
African American	42.2	37.55
Asian	52.57	42.9
Hispanic	44.21	40.63
White	48.37	43.95
2017		
African American	42.4	40.04
Asian	55.3	49.94
Hispanic	48.05	41.39
White	48.14	46.04

■ MDC ■ Control

District Support for Teachers

As instructional leads, Justus and Downs, along with a district team comprised of a high school and middle grades math coach, two elementary math coaches and an elementary school instructional lead, support all teachers trained in the strategies. They observe classrooms using a rubric or walkthrough form to mark their observations. The team later meets with teachers individually to provide feedback and assist in determining their next steps.

State Assessment Data

State assessment data for 2016-17 showed all students who experienced MDC strategies in their math classrooms saw an increase in achievement compared to students in classes where the strategies were not implemented. "The most amazing thing was data showed growth in every subgroup," says Leslie Texas, an independent math consultant who has been working with SREB and the district by providing teacher training since Year 1.

"As our district's implementation team has changed over time, the drive and desire for student and teacher improvement remains. JCPS is committed to supporting feedback and best practices for all teachers and all students," says Justus.

Contact(s): Michelle Dillard: michelle.dillard@jefferson.kyschools.us; **Sara Downs:** sara.downs@jefferson.kyschools.us; **Stacy Justus:** stacy.justus@jefferson.kyschools.us; **Leslie Texas:** texasconsulting@bellsouth.net

Penta Career Center: Using Data to Improve Instruction

After analyzing teacher-created assessments during the 2013-14 school year, Christina Kerns realized her school had an overall rigor deficiency. As the supervisor for curriculum and instruction at **Penta Career Center in Perrysburg, Ohio**, Kerns determined that the rigor of the assessments did not align with the rigor of the course standards. This disconnect prompted Kerns to look for systematic ways PCC could align student learning and assessments with the correct level of rigor of the course standards to help teachers improve instruction.

Working collaboratively, Kerns, the administrative staff and the professional development focus team identified assessment literacy as a significant need for school improvement. Assessment literacy enables educators to effectively review, select and develop valid, reliable measures to assess what students know and can do. Educators also interpret results of these assessments and apply results to improve student learning and program effectiveness.



New Assessment Model

Based on Karin Hess' [Cognitive Rigor Matrix](#), Norman Webb's [Depth of Knowledge Levels](#) and other resources, Kerns designed a professional development model that gave teachers two years to accomplish two main objectives. From 2015-17, teachers first had



Emma Vierheller, Math Teacher, Christina Kerns, Curriculum and Instruction Supervisor, and David Stacklin, Agriculture and Transportation Supervisor, Penta Career Center

to determine the Depth of Knowledge Levels for core standards, which help teachers categorize tasks according to the complexity of thinking required to successfully complete them.

Next, they had to create a curriculum with rigorous assessment items reflecting the level of thinking described in selected standards, while also incorporating stretch so all learners can demonstrate growth. “It is important that these teacher-designed assessments are strategically linked to the standards, instruction and student learning,” Kerns says. “The content-specific Cognitive Rigor Matrix helps teachers create assessment questions, activities and projects aligned to specific DOK levels.”

In the third year, 2017-18, teachers not only implemented the rigorous assessments, they also created data-tracking systems for individual and whole-class data tracking. Each teacher-created data-tracking system required students to set goals for performance, analyze their data, reflect on their performance and meet individually with their teachers regarding progress.

This year, 2018-19, the teachers are continuing with implementation of data-tracking systems as well as analyzing state test data. They are tasked to identify three to five areas of deficiencies and focus on more detailed lesson plans to ensure students grasp the material.

Tracking Student Data

“A lot of research shows that if students begin to examine their data, set goals and reflect on their learning, that empowers them to take ownership of their learning. They obtain a growth mindset,” says Kerns.

Emma Vierheller, a PCC math teacher explains, “As a school, we track mastery and assessment. I take it a step further. My students are tracking their gut feelings about their learning. Then we do a lot of self-reflection based on their assessments. Using data review, students develop a plan for how to address the skills they continue to struggle with. This reflection helps students see the challenges of skills they need to develop, as opposed to simply saying, ‘I’m bad at math.’ They know that they can learn if they put in the effort,” she says.

To collect student data, Vierheller has students complete a Google form each week to rank their understanding of concepts, explain how they will improve and share what the teacher could have done differently to help them learn the skill or content. The information collected helps teachers target the perceived areas of weakness for student learning and instructor teaching.

On a scale of 1-5, how well did you understand today's lesson?						
Didn't understand it. This is Chinese.	1	2	3	4	5	I got this so good, I could teach it to everyone else tomorrow!
	<input type="radio"/>					
If you ranked yourself at a 2 or under, what will you do to improve your understanding?						
What could Ms. Vierheller have done to help you learn better today?						

Example of a Google form Vierheller uses to collect student reflections

“I want students to own their own progress. I want them to know their effort matters and they have all the tools necessary to change or to get better. When it's laid out in front of them, they have exactly what they need to do to feel like they can manage,” Vierheller says. “I also give students a survey at the beginning and end of the semester asking questions about self-efficacy and their feelings of being a capable math student. Where I've seen the biggest jump is in students' perceptions that they can be successful in math. And for me, that's every bit as important as their test scores.”

Vierheller's use of innovative data practices is another example of how Penta Career Center prepares each student to enter a dynamic and challenging job market. By providing teachers tools to design assessments and instruction aligned to college and career standards, PCC ensures each student is held to high expectations and given the support they need to succeed.

Data Pay Dividends

Kerns believes this new assessment model has positively impacted PCC's WebXam scores. Ohio uses the standardized WebXam test to document student gains, observations and measurements. Penta's overall WebXam passage rate is 69 percent; 70 percent is considered proficient by state standards. Overall, Penta had a six percentage point increase in WebXam scores over the past year.

The hard work Kerns and her team put into assessment literacy led to her school being named a 2018 James E. Bottoms Pacesetter School. This SREB award recognizes PCC for its exceptional professional development model using the focus team approach.

Contact(s): Christina Kerns: ckerns@pentacc.org;
Emma Vierheller: evierheller@pentacc.org



Penta Career Center receives a 2018 James E. Bottoms Pacesetter School award at the 32nd Annual HSTW Staff Development Conference

Changing School Culture by Increasing Student Engagement

When Tommy Welch became the new principal of **Meadowcreek High School in Norcross, Georgia**, he noticed only a small section of students participated in extracurricular activities. Those students were more engaged in their classes, performing at high levels and graduating at a higher rate than their peers.



*Tommy Welch, Principal,
Meadowcreek High School*

Leveraging his knowledge of research that indicates “only when students feel engaged both socially and academically can schools and teachers lay the groundwork to motivate achievement,” Welch and his team found new ways to increase student engagement and impact student outcomes, such as extracurricular activities and interventions for at-risk students.

Under Welch, the 2017-18 Georgia Principal of the Year, graduation rates increased each year — from 43 percent in 2011 when he became principal to 77 percent in 2018.

“We wanted to increase the number of students engaged in activities, whether it's athletics, arts, leadership, etc. Increase positive engagement and in turn, increase student efficacy, school pride and student achievement,” says Welch. “To engage a wide range of students, we intentionally targeted different segments of the student body,” he adds.

“As the principal, it is my responsibility to create the support, resources, positions, structure and recognition that support a positive school culture where all students can reach their potential.”

With approximately 3,378 students, Meadowcreek boasts a diverse population: 67 percent of students are Hispanics, 19 percent are English language learners and the majority, 85 percent, qualify for free- and reduced-price lunch. To positively impact their academic careers, Welch and his team developed the following opportunities for increased engagement.

Leadership

Welch aimed to empower students through voice in Student Council. What began in 2014 with a group that could fit into one classroom grew so large it required meeting in the gymnasium in 2017. Meadowcreek joined the Georgia Association of Student Councils in 2015 and for the 2017-18 school year was elected the President's School for the Georgia Association of Student Councils. Meadowcreek was the first elected Title I President School in the organization's 75 years of operation.

Aligned with Welch’s vision, Corey Stillwell, student affairs coordinator, developed a leadership class for Student Council Officers, the Meadowcreek Leadership Team and the Student Athlete Leadership Team. Stillwell began attending the National Conference on Student Activities in 2016 to receive professional development and collaborate with activities directors from around the country.

Meadowcreek leverages Tim Elmore’s Growing Leaders program and the [Habitudes: Youth Leadership Lesson Plans & Training Curriculum](#) to support the purpose and objectives for each leadership program. “It is vital to provide students resources to become successful,” Stillwell says. Middle grades and high schools around the globe use Growing Leaders to transform school culture and prepare the emerging generation to step up and lead and Habitudes teaches students real-life leadership skills in an impactful way.

Business Partnerships

Meadowcreek partners with BrandBank, the oldest locally owned bank in Gwinnett County, Georgia, and runs its own branch in the school. Students gain hands-on experience in industry. BrandBank’s goals for the partnership are to “increase high school graduation rates, produce more first-generation college graduates and equip Meadowcreek High School students with the necessary skills to obtain livable wage employment and compete in a global economy,” says James W. Beaty, assistant vice president of BrandBank.

Meadowcreek also partnered with the Vulcan Materials Company for the second Vulcan Quarry Crusher Run, a 5K race that raised more than \$17,000 for Meadowcreek Cluster schools. Established to bring curricula such as earth science, mathematics, ecology and geology alive for students, the partnership has grown to include a popular art program, which features works from students of all ages.

Positive Behavior Intervention and Support

PBIS implementation involves explicitly prompting, modeling, practicing and encouraging positive expected social skills. For example, teachers at Meadowcreek utilize their schoolwide token economy system, Mustang Money, as a delivery system to systematically reinforce desired behaviors. Students receive Mustang Money when they exhibit behaviors that align with Meadowcreek’s three guiding principles: collaborate, inspire and own. Students and teachers also work together during Mustang Pride, the advisement period, to explicitly model and practice expected behaviors.

The implementation of PBIS at Meadowcreek helped lead to a 65 percent decrease in student referrals from 2014-18. Out-of-school suspensions during that same period decreased 83 percent — from 5,886 to 992, according to school records.

The Student Behavior Leadership team, where students are engaged in the planning and implementation of PBIS, is a key to the program’s success. “We noticed an overarching population at Meadowcreek that did really well with PBIS and the framework. Students having difficulty with behavior and truancy have since turned the corner. They gave us insight into that segment of the student population, and faculty were better able to understand that segment,” says Chad Charoenlap, PBIS coach.

Athletics and Student Achievement

Shawn Smith, Meadowcreek athletic director, added an academic adviser to the athletic department and has seen an increase in ACT/SAT scores. “The academic adviser assists the athletic department with ensuring athletes meet all NCAA and graduation requirements, with an emphasis on making sure they have taken the SAT/ACT by their junior year,” says Smith.

From 2015-18, athletic participation increased by 26 percent and athletic events gate sales increased by 73 percent. In 2017, the boys’ soccer team won the 7A State Championship; the football team played in the state championship and several teams made it to the state playoffs.

The addition of these activities and others have positively impacted the culture and academic success at Meadowcreek High School. Not only have graduation rates improved, but Meadowcreek was acknowledged by the Georgia Department of Education as a 2017 Advanced Placement Honor School in two categories: AP STEM (Science, Technology, Engineering and Mathematics) and AP Humanities.

Two students were named Travelers EDGE Scholars, the first in Georgia for this program that increases student access to higher education; the Robotics Team earned first place in the FIRST Robotics State Championship and competed in the World Championship in Houston, Texas; and



Meadowcreek Mustangs

Meadowcreek opened a makerspace in partnership with Georgia Tech GO STEM, a collaboration between Georgia Tech and the Gwinnett County Public School District to enhance the educational experience of Latino students in Georgia.

Contact(s): Tommy Welch: tommy_welch@gwinnett.k12.ga.us; **Shawn Smith:** lashawn_smith@gwinnett.k12.ga.us; **Corey Stillwell:** corey_stillwell@gwinnett.k12.ga.us; **Chad Charoenlap:** chad_charoenlap@gwinnett.k12.ga.us

Six Tech Tools You Can Use in the Classroom

Using technology in the classroom allows for more active learning, increases student engagement, helps teachers experiment with various teaching strategies and keeps parents up to date on their children's assignments and progress. Heather DeLaurent, library media specialist and technology coach at **Camdenton Middle School in Camdenton, Missouri**, shares six tools to keep students engaged in the classroom and help teachers stay organized and interact with students and parents.



Heather DeLaurent, Library Media Specialist and Technology Coach, Camdenton Middle School

1. Twitter, the social media platform, is a free tool that can help teachers stay connected with students, parents, peers and experts. After setting up a class Twitter account, teachers can effectively communicate updates like quiz reminders and deadlines or facilitate discussions and follow current events. It's also a great tool used to inform parents of developments in the classroom and keep students engaged outside of school hours.

"At first, [teachers] were apprehensive because Twitter didn't seem like a teaching tool," says DeLaurent. After issuing a 30-day Twitter challenge to get teachers acclimated to the application, the faculty and even the principal find Twitter to be a valuable communication tool.

2. Actively Learn is a multidisciplinary online literacy platform that helps students understand, retain and enjoy what they read. "Teachers can insert video to build background knowledge, vocabulary and more," says DeLaurent. The three components to Actively Learn's framework empower teachers to activate, support and reveal thinking for every student.

- **Activate Learning:** "Embedded questions can be inserted anywhere in a text to stop students so they think, reflect and write. They can annotate alongside their text, share notes and have discussions with peers," says DeLaurent.
- **Support thinking:** Appeal to diverse learners using text-size settings, dyslexic settings, text-to-speech, built-in dictionary and translate features.
- **Reveal Thinking:** Provide feedback that goes to students in real time, and students can flag for help, which sends a private message to the teacher. Teachers and students like this feature because, "Even if it's 11 at night and students are home reading an assignment, they can post a question at that time while they are having an issue," says DeLaurent.

CREATE MORE VIDEOS!

3. Adobe Spark is a free online and mobile graphic design app. This platform makes use of video, audio, still images, text, sharing, etc., and can be used as a substitute for PowerPoint and Google Slides. "It makes your videos look professionally done and it's easy for students to use," says DeLaurent.

4. Flipgrid, a leading video discussion platform used by educators, students and families, helps students develop soft skills in a digital environment. Teachers begin by creating a grid (classroom or community) and adding a topic or topics to spark the discussion. Students participate by sharing short video responses to ignite a dialogue. They can answer questions such as, "summarize this process" or "teach your classmates in 90 seconds."

LESSON PLANNING AND PRESENTATION

5. HyperDocs helps teachers create a flexible learning experience by incorporating hyperlinks in online documents to related documents and worksheets. These interactive digital lessons are tailored to meet each student's needs.

6. **Planbook.com** is a cloud-based electronic lesson plan software package used to collaborate with teachers, share with students and include parents in the learning process.

Randy Henderson, director of Student Services, **Mid-America Technology Center in Wayne, Oklahoma**, and his wife Gina Henderson, a teacher at **Norman Public Schools**, evaluated similar tools but chose Planbook for its usability. Planbook is intuitive and does not require technical expertise.

“You can attach files and links and easily adjust schedules. Users can view and copy plans from previous years,” says Randy.

Gina likes the collaborative aspect of the software. “You can give a layout to a new teacher. Teachers can share and get enough information to get started and organized.” DeLaurent adds, “It also loads standards from all 50 states to attach to lesson plans, and administration can review the lessons to collect observation data and more.”

Using technology simply for the sake of using it adds no value. Thinking about how and why you use technology in the classroom is critical to selecting the best tools for you and your students.



Gina Henderson, Teacher, Norman Public Schools

**Contact(s): Heather DeLaurent: hdelarent@camdentonschools.org;
Randy Henderson: rhenderson@matech.edu;
Gina Henderson: ghenderson@norman.k12.ok.us**

Follow us on social media:



SAVE the DATES

One week – Two powerful conferences

July 10 – 13
Join us at the **2019 Making Schools Work Conference**, the nation’s leading professional learning event for improving instruction and increasing K-12 student achievement.

July 8 – 10
Come early and explore powerful literacy and math practices at the **College- and Career-Readiness Standards Networking Conference**.

Hilton Baltimore and the Baltimore Convention Center, Baltimore, Maryland

#2019MSW #2019CCRS