Embracing Comprehensive School Reform

Engaging in intellectually demanding assignments in academic and career pathway classes is necessary in successfully preparing students for college and careers. This newsletter examines strategies administrators and teachers can use to implement a system of comprehensive school improvement. This endeavor includes school staff gathering and analyzing data about their school, prioritizing needs and putting in place strategies that drive up student achievement.

Teaching Strategies Can be Fun AND Effective!

Rigor and assessment connected to real-world problems can have an impact on student motivation and understanding. This enables students to understand and work with complex assignments.

Begin With the End in Mind

Gina Smith, an independent consultant, says teachers should begin lessons with the end in mind. Too often teachers begin thinking of the activities they are going to do in class without first thinking about what their students should know at the end of a lesson.

All teachers — new and experienced — can be more effective by planning their lessons using a sequence of objectives, assessments and activities/strategies. The most effective teachers use strategies to engage students and keep them focused on learning.

Once teachers have identified what knowledge and skills students should know as a result of instruction and have identified how they will assess what students know, they may begin the process of determining activities and strategies to engage students in the learning process.

Strategies Impacting Student Achievement

A study by Midcontinent Research for Education and Learning (McREL) identified nine categories of strategies that have a strong effect on student achievement:
a. **Identifying Similarities and Differences:** The ability to break a concept into its similar and dissimilar characteristics allows students to understand and often solve complex problems.

b. **Summarizing and Note-Taking:** These skills promote greater comprehension by asking students to analyze a subject to expose what’s essential and then put it in their own words.

c. **Reinforcing Effort and Providing Recognition:** This speaks to the attitudes and beliefs of students, and teachers must show the connection between effort and achievement.

d. **Homework and Practice:** Homework provides students with the opportunity to extend their learning outside the classroom. However, research shows the amount of homework assigned should vary by grade level, and parental involvement should be minimal.

e. **Nonlinguistic Representations:** Research suggests knowledge is stored in two forms: linguistic and visual. The more students use both forms in the classroom, the more opportunity they have to achieve. Incorporate words and images using symbols to represent relationships.

f. **Cooperative Learning:** Organizing students into cooperative groups yields a positive effect on overall learning. Keep groups small and don’t overuse this strategy.

g. **Setting Objectives and Providing Feedback:** This can provide students with a direction for their learning. Goals should not be too specific; they should be easily adaptable to students’ own objectives. Keep feedback timely and specific.

h. **Generating and Testing Hypotheses:** Research shows that a deductive approach (using a general rule to make a prediction) to this strategy works best. Whether a hypothesis is induced or deduced, students should clearly explain their hypotheses and conclusions.

i. **Cues, Questions and Advance Organizers:** This helps students use what they already know about a topic to enhance further learning.

**Think, Pair, Share**

Chef Dan Hogan, a culinary arts instructor at **Manual Career and Technology Center** in Kansas City, Missouri, uses a variety of teaching strategies in his classroom. One of his favorites is cooperative learning. He allows his students to choose their partners, yet holds them accountable for their decisions. He adjusts teams, at his discretion, for things such as skill level, attendance and behavior. “By using cooperative learning, I can introduce my students to teamwork. It is a natural ‘think-pair-share’ strategy and promotes healthy competition.”

In his book *A Practical Guide to Cooperative Learning*, Robert Slaven’s research found 61 percent of cooperative learning classes achieved significantly higher exam scores than traditional classes.

Hogan requires each of his culinary students to have a pocket notepad and writing utensil with them in class each day. He teaches them note-taking strategies so that they can record useful information, develop memory skills and prep for exams — all while developing writing skills.

**Engaging Assignments**

Many times, well-meaning teachers struggle to get information to students in a format to ensure engagement and retention, maintains Smith. A high school sophomore, when asked about some of his favorite teachers in school, mentioned his middle grades science teacher. “He said he loved her because she used bell ringers to get students thinking as soon as they arrived in class and noted they were usually difficult to complete.”
What an interesting reason for a student to love a teacher, exclaims Smith. She adds, “It’s true, students do love to be challenged and engaged by their lessons. And it’s the teacher’s responsibility to plan a lesson that is engaging, causes higher-level thinking, and helps students to understand and apply the knowledge being taught.”

In Doug Lemov’s book, *Teach Like a Champion*, he says, “Great teachers use strategies to engage students so they feel like part of the lesson.” Just think of the result of teachers’ efforts if all students felt they were part of the lesson and all students were involved and focused!

Time + Effort = Success.

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Tech Centers Preparing Students for College and Careers

Career and technical education (CTE) centers make learning real and relevant to tens of thousands of students. The centers also serve a valuable purpose by helping students gain the academic and technical skills needed in today’s workforce and 21st-century economy.

SREB’s Technology Centers That Work (TCTW) program shares that purpose by helping centers meet the challenge of preparing students for labor market demands, advanced credentials and degrees. Dale Winkler, special assistant to the senior vice president of SREB, outlines TCTW’s overall goals:

- Empowering 95 percent of center students to graduate on time
- Empowering 80 percent of center students to graduate college-ready, career-ready or both
- Empowering 60 percent of center students to earn a credential or degree of value by age 25

Attaining this level of preparation is not easy, but by combining rigorous academics with career pathways, collaborating with business and industry, utilizing advisory boards and providing opportunities for student internships, CTE centers are on a trajectory to meeting these goals. This article highlights two centers that have created learning environments that support the TCTW framework.

Brian Noller is the director of the Northland Career Center (NCC), a shared-time facility in Missouri that serves 12 high schools in seven districts. NCC offers a dozen career pathway programs ranging from construction and welding to aviation technology and law enforcement. “SREB has been our vehicle for school improvement,” says Noller. It has provided direction on several practices including work-based learning, business and industry partnerships and curriculum alignment.

To help students meet the TCTW goals outlined above, the center, in addition to academic and technical training, places a big emphasis on employability skills — the so-called ‘soft’ skills employers say recent grads lack but are necessary for getting, keeping and being successful at jobs.

In the 2013-14 school year, Noller’s center developed a special Essential Employability Skills curriculum based on feedback from 56 advisory members including NCC staff, business and industry, and postsecondary institutions that provided guidance on standards to address in the curriculum.

**Essential Employability Skills Standards**

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<th>Attendance and Punctuality</th>
<th>Leadership and Teamwork</th>
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<td>Critical Thinking and Problem Solving</td>
<td>Personal Responsibility</td>
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<td>Work Ethic and Integrity</td>
<td>Career Development and Planning</td>
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<td>Attitude and Willingness to Learn</td>
<td>Technology Application</td>
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<td>Organizing and Prioritizing</td>
<td>Information Research</td>
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According to Noller, these skills are integrated into each of the 12 career programs and make up 45 percent of students’ grades. Teachers measure students on these skills every three weeks and provide feedback on how they can improve.

**Work-Based Learning**

Students also have opportunities to go beyond the classroom and to gain valuable experiences in the world of business through work-based learning. “We’ve dedicated a staff member to focus on partnerships and work-based learning,” says Noller. He continues, “Our mission is to prepare students for a continually changing world by providing relevant experiences.” Students take part in internships, job shadows, field trips and listen to speakers aligned with their career pathway programs. “Kids are not only getting internships, they’re getting jobs,” says Noller.

**To Prepare Students For A Continually Changing World By Providing Relevant Experiences**

It’s a win-win situation for everyone involved. Noller maintains, “It has a value to students in terms of the connections they make and the experiences they get.” He adds, business and industry managers can work with students they helped train and mentor who could ultimately become long-term employees in their organizations.

NCC tracks students’ related placement data to determine if students are enrolling in college, accepting jobs or entering military careers related to their tech center program of study. In 2014, 70 percent of students remained in their career pathway after graduation; 71 percent did so in 2015, and 64 percent did so in 2016.

The center’s graduation rate in the 2016-17 school year was 86 percent. This includes all juniors who enrolled during the previous school year and all first-year seniors in a one or two-year program.

**CTE is In, Vocational Ed is Out**

Tracy Gyoerkoe, director of CTE at Jefferson-Lewis BOCES (Boards of Cooperative Educational Services) in New York, says CTE has
evolved in recent years from a narrow focus on trade-related technical skills to a curriculum “more connected to academic standards, increasing rigor and preparing students for actual jobs that are out there.” Jefferson-Lewis BOCES comprises two shared-time CTE centers: the Charles H. Bohlen Technical Center and Howard G. Sackett Technical Center, jointly serving about 1,100 students from 17 sending schools.

Business and Industry Making Learning Relevant

The centers offer 26 career pathways ranging from construction, hospitality and culinary arts to SREB’s Advanced Career Integrated Production Technologies (IPT) curriculum. To help ensure the pathways and curricula are meaningful in the 21st-century economy, business and industry representatives serve on advisory committees and are involved in the development and implementation of career pathways.

For example, industry representatives sat at the table with superintendents from the sending school districts, sharing information about what they are looking for in manufacturing field — the problem solving and employability skills students need. “The school superintendents really listened to them and took it to heart,” says Gyoerkoe. Now, some component schools are working to implement ideas gleaned from industry, in particular, developing employability skills rubrics for teaching soft skills at a younger age and across subject areas.

Business and industry are also providing students relevant, real-world learning experiences through internships. In the spring of each year, students participate in two-to-four-week internships as a routine part of the CTE program.

The manufacturers were also instrumental in reviewing the IPT curriculum and deciding if it was the right fit for the region. It is broad enough to cover the range of skills needed among various industries, from paper-related companies to high-tech farming and a Kraft cream cheese factory.

Getting business and industry to the table can be a challenge; Gyoerkoe says the key is relationship building. “Offer to help them with something,” she advises; don’t just call and ask for help. Gyoerkoe served on a manufacturing committee with a local economic development group and helped organize a national manufacturing day and was the contact person with the schools. She also helped the committee edit a survey that would be distributed to manufacturers.

Additional partners have joined in the efforts to improve student work readiness. Their two-county workforce development board, economic development organizations and the local government have been key. For example, Lewis County helped to plan and then offered to fund its first manufacturing academy of science and technology camp in summer 2017. Thirty-one middle grades school students participated and designed a device to prevent sediment from damaging controls in the county’s flood warning detection system.

Postsecondary Credit and Industry Certifications

Through agreements with postsecondary institutions, students in all career pathway programs at Jefferson-Lewis BOCES may earn advance college credit. For example, an agreement with Jefferson Community College allows students in the AC Integrated Productions Technologies program to receive credit in the college’s engineering program.

Industry certifications are also offered in the center’s construction-related program. To become certified, students take a series of hands-on and written assessments related to their career field. At NCC, students can earn certifications one year after passing industry-recognized exams. In the 2015-16 school year, 49 students earned industry certifications in fields including construction technology, law enforcement and industrial welding.

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Creating the Village: Embracing Whole-School Connections

Schools that continually show growth and improvement typically have one thing in common: they engage the entire staff in the process. Rarely are schools successful simply because they have a charismatic leader.

High Schools That Work (HSTW) has a long history of engaging “teachers working together” as one method of moving schools forward. The process of engaging an entire faculty is not without its challenges; however, schools that do so find that attitudes among the faculty and staff tend to shift from ‘things out of my control’ to ‘things that staff can control’ and thoughts about how best to grow the school. The HSTW school improvement process is collaborative at its core and builds upon a distributive leadership approach.

The experiences of two Texas schools — Texas City High School and La Marque High School — are examples demonstrating how this collaborative school improvement process works.

In spring 2015, HSTW sent a team to Texas City High School to conduct a curriculum and instruction audit, formally called a Technical Assistance Visit. This was followed by a Site Development Workshop in August 2015. Through these two data-gathering processes, the school pinpointed six major areas of needed improvement and utilized a teacher-led focus team process to research best practices and develop a three-to-five-year plan for school improvement. The audit and workshop are not evaluative in nature; the goal is to help school leaders and teachers look at where they are and where they want to go with school improvement.

The principals at Texas City High School and La Marque High School led the school reform efforts with support from Gary Wrinkle, SREB’s lead school improvement consultant. “As a consultant, I work with the principals to take the data from the school, and we jointly determine what areas of focus will provide the most benefit to the campus,” says Wrinkle. HSTW urges schools to form teacher-led focus teams to identify challenges, research solutions and make recommendations on how to move forward with school reform.

School Focus Teams

When addressing whole-school reform, it is important to ensure all faculty and staff serve on a focus team. Each teacher should serve on the team he or she feels the most connected to or that is assigned by the administration. It’s important that teams are interdisciplinary in nature so that teachers from multiple areas and with several different perspectives are part of the decision-making process.

Wrinkle notes schools can address a plethora of challenges through this process, but typically teams focus on engaging instruction, high expectations, culture/climate and transitions. Some schools elect to be even more specific by asking a team to address attendance issues or grading issues.

Principal’s Role

It’s important for administrators to ensure teachers are provided time to meet on a regular basis to accomplish their work. The focus team process will fail if their work is simply piled on top of all the other duties teachers have. Principals approach this challenge in multiple ways:

- Some principals have built-in faculty meeting times on a weekly basis and decide to turn this time over to the focus teams.
- Others elect to bring in enough subs to cover a team and then rotate the group of subs through each team, providing a half day of planning time once per month for each team.
- Some rely on before-school or after-school meeting times. But, a word of caution, notes Wrinkle — it will be imperative that this process be the only additional thing asked of teachers that year. “The smart principal honors his teachers by respecting the process and providing the cover for time, as needed and as possible, in any given system,” maintains Wrinkle.

Another key for success involves supporting teacher-leaders with the tools needed to be successful. “As a consultant, I meet with teachers to walk them through the process and share tips and tricks for running successful meetings, developing agendas, making decisions, dealing with challenging team members, etc. This coaching provides the support needed for a teacher not used to the leadership role, an opportunity to grow and become a leader,” says Wrinkle.
He also encourages administrators not to attend any meetings unless asked to do so as a resource by a teacher-leader. “Conversations tend to change when principals walk into a meeting; teachers are often deferential, which shuts down the creative thinking process,” he contends. “Principals must trust the process and allow teachers to lead.” Principals should continually encourage staff and ensure they know he or she is excited about their work and looking forward to their recommendations.

### Six-Step Problem-Solving Process

Teacher-leaders and principals must be coached on the problem-solving process to be effective focus team leaders. The following six-step process is ideal for addressing school challenges:

1. **Identify/define the problem.** It is essential everyone is on the same page with what the challenge is and that misunderstandings are eliminated.

2. **Understand the causes of the problem/challenge.** Why does the challenge exist at the school? This is the most important step because understanding why a problem exists is essential to knowing how to address the problem or challenge. For instance, schools sometimes try to improve attendance with a free give-away to incentivize attendance. However, teachers find attendance is more about students feeling a part of something important to them, about having an adult connection at the school and about seeing value in their course work. The solution to attendance, therefore, typically has no long-term impact if it is addressed with incentives.

3. **Set goals for what the team hopes to achieve and conduct research regarding the challenges and problems identified in step two.** The research informs schools or other organizations how to address the cause of the challenge. The goals clearly define what the long-term outcomes should be.

4. **Select strategies to recommend to the leadership team.** Teams should consider the impact of implementation, what would be required and what the timeline would be, etc. This step is the culmination of the planning/research phase and typically happens at the end of a semester or school year. Team leaders/chairs prepare a presentation to the leadership team to make their recommendations of how the school should address its individual challenge area. The chairs of each focus team and the administrative leadership team then work together to prioritize actions and initiatives to be implemented.

5. **Implement the agreed upon actions and initiatives.**

6. **Evaluate and monitor the results.**

### Prioritizing Recommendations

When principals have four to eight focus teams working, there will likely be a plethora of recommendations. Typically, focus team presentations are 20 to 30-minutes each, held over a two or three-hour meeting. While long, these meetings are some of the most uplifting and exciting principals experience. They see immediately the hard work that has been completed and the passion teachers now have for school improvement efforts. The teachers own their work and will bring great ideas to the table. After all presentations are made, teams must meet a second day to prioritize the recommendations. For example, what will happen immediately, next fall, next spring, next year...or possibly never?

Texas City High School completed this process in the 2015-16 school year and has completed its first year of implementation. Principal **Holly LaRoe** states, “Three years ago, the High Schools That Work process transformed my leadership as a principal. Before that, my leadership style tended to be authoritative in nature. After listening to the needs of teachers in committee proposals, the power shifted in my leadership. This created a cooperative, collaborative, and collegial type of culture among the faculty and staff members. ... Overall, our culture and climate has evolved into a friendly, cohesive and collaborative model that I am extremely proud of as a principal.”

### Tighter Timeline, Same Positive Results

La Marque High School followed a similar path however on a much tighter timeline. The school began with a curriculum audit in November 2016 and held a Site Development Workshop in February 2017. The staff then began with five focus teams addressing their challenge areas with the teams making recommendations in May 2017.
Principal Ricky Nicholson states, “Although we’ve started the HSTW process unconventionally, the embedded benefits have paid off tremendously. The genuine discussions regarding school improvement and career readiness have created a synergy on our campus. I can’t wait to implement the recommendations of our staff.”

After the leadership team finalizes the plan, it should be shared with the entire faculty. Principals and teacher-leaders must follow through and do what they said they would do, cautions Wrinkle. “If actions do not follow the work of planning, the synergy will be lost.”

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Using Data to Support Best Practices Around Positive Culture

Data-driven decisions have increasingly gained credibility and relevance across many sectors. Teachers have long been using data, such as exam scores and annual assessments, to make informed decisions about students’ achievement levels and their own instructional practices. States use standardized assessment data to rate schools. Also, data have become an increasingly important tool for decision-making in business.

Schools must adopt this practice to improve their culture, says Lydotta Taylor, president of The EdVenture Group in Morgantown, West Virginia, and Britanny Cunningham, researcher at Insight Policy Research in Arlington, Virginia.

School culture comprises the underlying beliefs, norms and attitudes that characterize how individuals think, feel and act at a school. To improve school culture, change must involve administrators, teachers and students. “You don’t have to be a researcher to use data,” says Taylor. “Addressing school culture is a game changer in the overall success of the school and students. Focusing on the culture brings opportunities for growth to light and creates a more positive learning and teaching environment,” he adds.

Six Characteristics of Strong School Culture

The pair notes six characteristics of a strong school culture from a classroom teacher’s perspectives and how data can be used to improve curricula, student and teacher experiences, and overall school quality:

1. Student Engagement: Students who are engaged exhibit behaviors that support achievement. “We’re starting to shift toward more student empowerment,” says Taylor, “When students can see the link between what they’re learning and their interests, they are engaged.”

2. Collaboration: Establishing teacher teams provides effective learning across the curriculum.

3. Goal Setting: “Successful people always have clear, focused goals,” states Taylor. Goal-setting improves performance and allows people to focus on goal-related activities.

4. Action Planning: This means that schools should create manageable tasks to accomplish the goals they set.

5. Assessing Attitude: “Organizations with more satisfied employees tend to be more effective,” says Taylor. School leadership style has an impact on school attitudes and change.

6. Engaging Openness: “It is hard to change,” says Taylor, “but it is important to be open to change.”

Using Data to Drive Decisions

Data are valuable in achieving a strong school culture — providing insights that help answer key questions about culture. Data turn insights into reliable decisions and actions that support continuous improvement of school culture. Data allow administrators to focus on improvement efforts and monitor progress. Finally, a process of collaborative data-sharing among administrators and faculty develops a sense of community within a school.

Taylor and Cunningham used West Virginia as an example of successfully using data to drive decisions and enhance school culture. West Virginia recently implemented a new statewide approach to career and technical education (CTE) in high school called simulated workplace. This initiative established a “hands-on” approach to CTE education. To implement this program, administrators, teachers and students were each given a 20-item survey including Likert-scale questions, short-answer
Making Middle Grades Work Teacher and Student Surveys

Middle grades schools participating in Making Middle Grades Work (MMGW) are committed to raising student achievement so students are prepared for the rigors of a college-ready academic and career-ready core when they reach high school. The importance of data in this comprehensive school improvement effort cannot be overstated.

Data from surveys can inform instruction; confirm what students know and don’t know; gauge the effectiveness of instruction and classroom experiences; and hold teachers and school leaders accountable.

The MMGW student and teacher surveys are tools that help schools know if students are having the kinds of experiences that prepare them for high school and beyond. All full-time teachers and eighth-grade students complete the surveys. “They’re asked such questions as: What kind of instruction do their teachers use? When requested, do teachers provide them with extra help? What kind of support do they get from teachers or guidance counselors? Do they feel they are prepared for high school?” says Paula Egelson, SREB director of research.

MMGW Key Practices

The surveys are based on the new MMGW Key Practices framework. These practices include:

- Teach all students using engaging assignments aligned to grade-level standards.
- Use literacy and math strategies to advance students’ subject area achievement.
- Place a balanced emphasis on teaching procedural and conceptual understanding, reasoning skills and the application of math to real-world problems.
- Require and support lab-based science.
- Engage students in STEM-based projects and assignments that emphasize science, technology, engineering, math and literacy to:
  a. Pique students’ curiosity.
  b. Re-engage struggling students.
  c. Encourage creative thinking and problem solving.
  d. Increase student achievement to meet grade-level standards.
- Get at-risk students on the graduation track through more engaging and accelerated curricula coupled with extended learning time.
  a. Identify students who are not on a graduation path.
  b. Keep at-risk students enrolled in rich and challenging curricula.

West Virginia now has more than 1,200 simulated workplaces that virtually transform the traditional high school classroom into business environments that introduce students to authentic work experiences such as punching time clocks, undergoing drug tests or working on projects. Simulated workplaces also help students develop employability skills such as good attendance, teamwork and communication skills.

CTE programs moved from instructor-led classes to student-led, project-based learning classes. Instructors became “facilitators of learning” rather than lecturers. Industry was heavily involved in the development of this program. The goal is to prepare more students for college and careers and develop a pool of skilled workers to fuel the state’s and nation’s economies.

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c. Create advocacy teachers and classes.

d. Extend time to meet grade-level standards.

- Help students explore their interests, aptitudes and career and educational goals through in-school and out-of-school learning activities.

- Support school leaders to continually work on school improvement with faculty to advance in-depth knowledge of curricula and effective instructional strategies, and to use resources, time and money to support good teachers to become great teachers.

Survey Results

Specifically, the MMGW Student Survey determines how prepared eighth-graders are for rigorous high school work through high expectations, comprehensive support and guidance and engaging literacy, math and science across the curriculum. The MMGW Teacher Survey explores the level of support from school leadership, teachers’ views about improving student achievement through instructional practices and expectations.

There are some common questions among the teacher and student surveys. Egelson notes, “We find that students are quite honest in completing the surveys. The eye-opening thing is how the perceptions (between students and teachers) can be so different in some areas especially considering these individuals are in the same school, albeit in different roles.”

Once surveys are analyzed, reports, including personalized recommendations for each school, will be sent. Pertinent graphics will show data comparing your school site to all surveyed sites and to sites that implement the MMGW framework with the most fidelity.

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