## **Best Practices Newsletter**

## **Motivating and Engaging Students in Learning**

Motivating students is arguably half the battle when it comes to learning. Students not motivated will resist putting forth the effort to do assignments, study or participate in class. Ultimately, these students will not learn effectively.

To motivate students, teachers must help them see real-world relevance in school, form relationships with them and inspire them to succeed. This newsletter will examine ways teachers can enhance the learning experience by helping students think critically, reason, become problem solvers and get excited about learning.

# Implementing STEM in a Traditional Middle Grades School Setting

To rebrand itself and to inspire 21st-century learners, **Jackson Middle School (JMS)** in South Carolina began implementing a STEM-focused curriculum in the 2014-15 school year. The school in rural Jackson, South Carolina, serves about 320 students in grades six through eight.

The purpose was not to add more science, technology, engineering or math (STEM) classes, but to create a classroom environment that encouraged innovation, creativity and critical thinking skills. The school got the ball rolling by establishing a STEM pilot team for each grade level. Staff visited other STEM middle grades schools and talked with administrators, principals and teachers to formulate ideas about how to move forward. "We found we needed to create an engineering design process that would work for Jackson as well as the students," said **Kishni Neville**, a sixth-grade science teacher.

Traditionally English, math, science and social studies teachers operate on different "islands," maintained Neville. As the first to pilot the STEM program at JMS, the sixth grade used an interdisciplinary model. Teachers chiseled out a five-step engineering design process — research, design, build, test and improve — that included attributes they wanted every STEM student to embody and could be used across content areas.



This newsletter describes best practices presented at the 29th Annual HSTW Staff Development Conference in Atlanta, Georgia, in July 2015. **SAVE the DATE**. Join us for the 30th Annual HSTW Staff Development Conference July 13-16, 2016 in Louisville, Kentucky. Click **here** to register. Come early for the College- and Career-Readiness Standards Networking Conference, July 11-13, 2016 in Louisville.

In English/language arts classes, the engineering design process would be used in the writing process to create story structure; in science it would be used to create new products and complete experiments; in social studies, it would be used to solve world issues, and in math, it would be used to solve word problems. Neville said all classrooms had the same rules and expectations, and students began to understand the behaviors that worked in one class worked in all.

## **Getting Started**

To get all teachers and students on the same page, JMS administrators put in place 40-minute advisory periods during homeroom with a theme and a purpose for each day. For example, on Mondays each advisory period focused on math; Tuesday's advisory was devoted to current events; Wednesday's focus was writing; Thursday's topic was test-taking skills, and Friday was reserved for "true" advisory such as college preparation or student grades. "It made our students more accountable in all classes because we presented ourselves as a united front, said Neville.

During advisory class teachers gave students activities to complete. Teachers challenged students to be innovative thinkers. For example, teachers gave students a household item and challenged them to come up with new uses for it. They talked about being innovative thinkers and about the qualities innovative thinkers must possess. According to **Kendra Lloyd**, a sixth-grade English/language arts (ELA) teacher, the attitude became "let's give this information to our students and see what they do."

Lloyd said one big focus in sixth grade was communication. Teachers discussed with students different ways to communicate, the pros and cons of negative forms of communication, and ways to effectively communicate. Thus, when there were disruptions in class, students were asked to identify how effective communication could have alleviated the problem.



STEM Pilot Team (L to R): Kendra Lloyd, Angela Virella, Jason Holt, Kishni Neville, Kennita Hairston and Sally Brady

#### **STEM Activities**

Walls Down: Once per semester sixth-graders would take part in a project-based learning session called Walls Down. For the first four periods of the day, sixth-graders would not follow the normal bell schedule. Teachers would give them an essential question, and they would work to create a product. Faculty and staff developed professional partnerships with STEM-related employers in the area. Engineers visited the school, asked students probing questions and worked with them on projects.

Neville said when students worked with engineers one-on-one, they quickly learned that "true" engineers have a working knowledge of all things science. "When students see them work, that question of 'why do I need to know this' goes away," adding "students see that our lives aren't broken into subjects and periods. They see in the real world, our lives and the workplace are interdisciplinary."

Learning Stations: Teachers used learning stations and separated classes into groups based on students' specific needs. For example, Lloyd said in her ELA class, one group might focus on direct instruction or lecture while another group might take part in an online activity or a collaborative activity. "This is wonderful. No longer is there whole-group instruction and the possibility that a child will be left behind. This allows me to focus on students' individual needs," Lloyd noted.

STEM Night: The school also sponsored STEM night once per semester. "This is where the magic happens," Neville said. Parents come to the school and collaborate on projects with students. Role reversals are commonplace; students become teachers. They teach parents the engineering design process, how to communicate effectively and how to research effectively to accomplish a goal and how to complete a project.

STEM Collaboration Lab: With financial backing from the Aiken County School District, JMS opened a STEM in action lab where students may drop in during non-academic times to create, be innovative thinkers and see how technology continues to advance.

#### Student Success with STEM

**Principal Jason Holt** said the success of STEM was quickly apparent. Students became noticeably more engaged in their work and exhibited far fewer behavioral problems. There was a significant increase in teacher communication and collaboration and fewer parent complaints. Neville added STEM increased the relevance, rigor and relatability of the content they were teaching. It made it real to students, and they were more successful.

### **Next Steps**

Holt said faculty and staff will explore more ways of using technology in the STEM program and get students involved in more hands-on learning.

The STEM program is being piloted in the seventh grade during the first semester of the 2015-16 school year and will be piloted in the eighth grade during the second semester. "For STEM to be successful you have to make it relevant to you population. We can't use some canned program," Neville said.

JMS Tips for Starting STEM Program

- Have discussions and professiona development for teachers.
- Understand the principles of STEM.
  Think outside the box.
- Obtain financial and instructional resources from your district.
- Form a STEM advisory council comprising stakeholders such as businesses, engineers, parents, students and teachers.

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## "CARE" Enough to Teach all Students

For years, students highly skilled in the three "Rs" — "reading, 'riting and 'rithemetic" — were considered to have the basic foundation for a good education. Now research suggests another trio of "Rs" — rigor, relevance and relationships — is essential to every classroom. Rigorous academic course work, relevant learning experiences and meaningful relationships with teachers who care enough to help students achieve standards and become college and career ready are just as essential.

Education leader Cleve Pilot focused on building relationships at the HSTW Staff Development Conference in Atlanta in July 2015. He said students respond more to teachers who establish a genuine relationship with them, and it's important for teachers to "CARE" (Change their Attitude to Reach Everyone).

Pilot earned a doctorate degree in education administration. He has a master's in rehabilitation counseling and counseling education, a bachelor's in business management, is certified as a global career development facilitator, is nationally board certified in K-12 school counseling and is currently an assistant principal at C.A. Johnson High School in Columbia, South Carolina.

He was also placed in special education while a middle grades student due to his behavior. Pilot credits his path to success and passion for education to teachers who believed in him and cared enough to push him academically.

While in the sixth grade, his father died leaving him and his six brothers and sisters in the care of his mother. Pilot tried to get away from the turmoil through school, Boys & Girls Club activities, and sports. But by seventh grade he was failing academically, experiencing behavioral problems at school, and absorbed with playing on the varsity baseball team. By the eighth grade, he was placed in a special education class due to behavioral issues (even though he was also in honors math at the time).

He credits two teachers with recognizing his potential and moving him out of general education classes and into college prep honors classes. "The question is not, do you know about a kid, but do you care?" he said. Pilot has identified what he characterizes as four types of teachers:

- The bad teachers tell students what to do.
- The mediocre teachers explain to students what to do.
- The good teachers demonstrate to students what to do.
- The great teachers inspire students for life.

Teachers who become students' favorites affect them on a personal level. "The teachers you love are the teachers who care about you," Pilot explained. This support for students translates into a successful classroom, where students are provided clear goals, rigor, opportunities for engagement, and collaboration and relationship building. He considers the traits below as characteristics of effective teachers:

#### **Passion**

"If you don't have passion for what you do, you need to hang up your boots," Pilot said. "Passionate teachers prepare students for real life, not tests."

#### Knowledgeable

Students can sense if a teacher understands the subject matter. By being knowledgeable about what is being taught and being excited about it, students are more likely to respect that person and care about what they are learning.

#### **Ability to Communicate With Everyone**

"Everyone" includes students, parents, staff, custodians, cafeteria workers, bus drivers, business partners and community members. Sharing what you do and learning from others opens the door to building trust and positive relationships.

#### **Ability to Motivate Others**

Effective teachers know how to motivate without being forceful or overbearing. They understand how to listen and hear what others need, allowing them to guide others.

#### **Being Consistent**

Most importantly, these teachers must continue to exemplify these characteristics on a daily basis and continually foster a culture of support and learning. CARE breaks down as follows:

Get out of your comfort zone.

Be genuine.

for real life, not tests."

"If you don't have passion for what you

Cleve Pilot

do, you need to hang up your boots."

Cleve Pilot

"Passionate teachers prepare students

- Use multiple approaches.
- Establish relationships.
- Do not let perceptions hinder your professional growth.

#### **Attitude**

- Avoid bias toward certain students.
- Don't take out stress on students.
- Ask yourself what teaching means.
- Discover what your goal is as a teacher.

#### Reach

- Motivate students.
- Establish a rapport with students.
- Always want everyone to achieve.
- Be fair to all students.

#### **Everyone**

- All students, regardless of circumstance
- Special Ed
- Gifted and talented
- Black males



Based on his early education and what he's experienced since becoming a professional educator, Pilot concluded, "True education is not how smart people are, but how well they can function socially in society, taking what they have learned and applying it to real-world situations for the betterment of themselves and the community."

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## **Motivating Struggling Learners**

Ask any teacher. Getting students pumped up, enthusiastic and motivated to learn and excel is no easy task. Still, teachers play a crucial role in encouraging students to achieve in school and reach their full potential.

**Barbara Blackburn** of Blackburn Consulting Group in North Carolina suggested students are motivated when they see value and success in what they are doing. She noted three significant ways for teachers to leverage value: relevance, activities and relationships.

"As learners, we are wired for relevance," Blackburn said, and she indicated some ways teachers can help students see the relevance in assignments:

- Think from a student's perspective: "Why does a student need to learn this?"
- Record unit or lesson goals on the board and refer to them through the learning.
- Have students talk with a partner about how their work is relating to the goals.
- Foster positive relationships with students.

"Students want you to like them," noted Blackburn, adding it bolsters the value in the learning experience. Along with value, students are motivated when they feel successful. To promote success, Blackburn suggests:

- Teachers start with activities students feel good about to guarantee success.
- Always follow-up on assignments, tasks, assessments, and hold students accountable.
- · Celebrate when students do something right, and build a pattern of success for each learner.
- Provide many opportunities for students to work at something challenging, and build persistence and grit.

According to Blackburn, inviting students to tackle challenging assignments can build resilience. There are multiple ways to encourage resilience — ranging from helping students set realistic expectations and goals to helping them learn from mistakes and providing opportunities to make decisions.

She also urges teachers to identify "negative scripts" from students and help them re-engineer their messages. For example, if students believe they are no good at math or just want to quit without trying, help them reframe the negatives into positives. Blackburn said teachers can actively model this technique and help students replace negative thoughts with positive ones.

Blackburn believes all educators can help students become more successful by creating a climate of success through understanding, motivation, building positive relationships with students and holding all students to high expectations.

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