

# Teachers Use Tools and Strategies to Engage Students in Grade-Level Assignments



*Student assignments that result in deep learning are important to raising student achievement. Teachers are creating relevant assignments and finding ways to help students master content.*

Today's career-technical (CT) teachers need to do more than prepare students to follow a set of procedures. They need to prepare them to develop their own procedures. "The difference is between teaching how to build a toolshed in shop class and teaching a construction trades pathway in which students design, erect, plumb, wire, heat and cool a house they can live in," said **Debbie Hall**, SREB reading and writing specialist.

"Even that isn't enough," Hall continued. "Students need the thinking and learning tools to run a business that provides essential services. The difference is between a low-skill job and a middle-skill job and beyond."

Middle-skill jobs are positions that require more than a high school diploma but less than a four-year degree. According to the National Skills Coalition, middle-skill jobs make up the largest segment of the American labor market. However, these jobs often go unfilled because too few applicants are properly trained.

According to the December 2012/January 2013 issue of *Community College Journal*, 17 million of the 55 million new job openings between 2010 and 2020 will require middle skills. The publication also reported that many of these jobs will pay middle-class wages.

## What Can Teachers Do?

“Teachers can prepare students for middle-skill jobs by making sure their assignments are rigorous enough to matter,” Hall said. “This means rigorous enough to enable students to enter community and technical colleges and certification programs to qualify for the millions of middle-skill jobs waiting for them.”

In her book *Assignments Matter*, Eleanor Dougherty says educators use the term “assignment” too casually. A complete assignment is more than an activity. It includes three parts — a prompt, a rubric and a product. The Literacy Design Collaborative (LDC) provides all three parts of a quality assignment.

LDC is a process for designing assignments that are rigorous in nature and “hard-wired” to the college- and career-readiness standards (CCRS). The goals of LDC are to engage students in reading, comprehending, analyzing, interpreting and responding to complex technical texts and to help teachers personalize learning so every student can master CCRS and be ready for college and careers.

## Three Parts of an Assignment

Each LDC assignment begins with a *prompt* in the form of a template task. There are 29 tasks — 10 argumentative, 15 informational and four narrative. For each type of writing, LDC has developed a common scoring rubric so that teachers everywhere will evaluate the same way. The prompts are flexible enough that teachers can determine the scope and complexity of the product — the materials students will read and the type of writing they will generate in response to that reading. Using the LDC module templates and instructional ladder, teachers can scaffold learning so that students develop the skills needed to master the standards of the course. Teachers then use the rubric to score the product generated by the prompt.

LDC writing prompts are very different from the ones typically found in CT classes. For example, if a construction teacher asks students to write, he might ask them to write a report on hardwood flooring. Using LDC Template Task 2, the teacher might ask students to answer this question:

*“Which is the better product for a home’s flooring — hardwood or an engineered wood product? After reading a variety of teacher-selected materials, write the script for a persuasive speech to a homeowner in which you address the question and argue in favor of the better product. Support your position with evidence from the texts.”*

The underlined words are those that the teacher has chosen to fill in the blanks of the template. Whereas the original prompt simply asks students to write a report, the LDC prompt asks students to read a variety of texts; synthesize the information; reach a conclusion based on research; and write a document that is authentic to the field of study. “The second task is more rigorous and more likely to prepare a graduate for a middle-skill job in the construction industry,” Hall said.

For a wealth of information and examples of rigorous assignments, teachers can go to [literacydesigncollaborative.org](http://literacydesigncollaborative.org). SREB trainers and coaches can provide in-depth instruction on how to address the CCRS and design LDC templates and modules.

“When students are actively engaged in rigorous and authentic assignments that matter, they are more likely to develop the skills and abilities to qualify for middle-skill jobs,” Hall said. “Learning to build a model house is no longer good enough. They need to research and create their own procedures.”

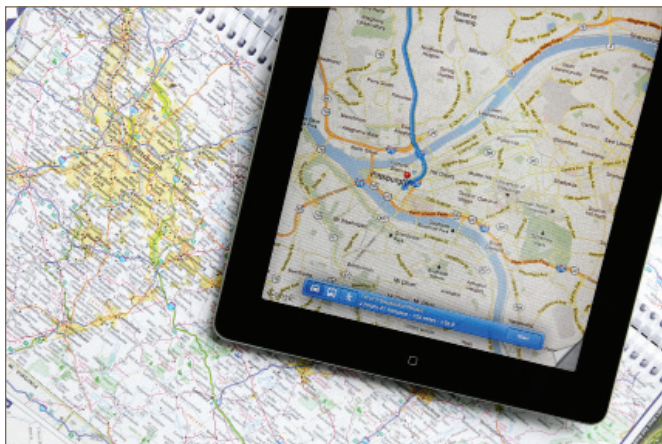
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## Those Who Sleep Through History Are Condemned to Repeat History: Strategies for Engaging Students in Learning

Two years before the state identified **Southern High School** (SHS) in Louisville, Kentucky, as a “priority” school needing improvement, social studies teacher **James McCabe** recognized problems in the classroom and took action to involve students more actively in learning. “Students were sleeping in class and not scoring well on tests,” he said. “I didn’t need the state to tell me students weren’t learning. I realized I could do a better job.”

Using research on attention span and the impact of history courses on students and adults, McCabe made major changes in instruction. “I found that the average student has an attention span of 16 minutes,” McCabe said. “I also learned that only 10 percent of students in a Gallup Poll survey listed their favorite subject as history.”

McCabe also considered his responsibility as a social studies teacher to support students as they become college- and career-ready as quantified by Kentucky through ACT, industry certification and other state and national standardized exams. “I wanted to help students prepare for the future,” he said.



### Standards-Based Learning

To address the needs of students, McCabe introduced classroom protocol and procedures, including an introduction and a series of cooperative learning activities. The activities are created and focused on a list of learning targets that McCabe bases on the standards of an upcoming exam, whether it be an Advanced Placement (AP) exam or an end-of-course exam for U.S. History.

McCabe purchased hardware that allows him to edit lengthy social studies videos into shorter clips containing the most important concepts. He also invested in an audio splitter to allow multiple students to use headphones as they watch the videos.

In the learning activities, small groups of students rotate through several activities for periods of less than 16 minutes each:

- The first learning activity focuses on maps. Students learn geography through web-based and traditional maps.
- The next station is “Story Time with Mr. McCabe.” The teacher has written and illustrated stories with the following titles: “Ashoka the Great or Dude Looks Like a Lady,” “Justinian or When Not in Rome, Do as the Romans Do,” “The Reign of Kublai Khan or You Can’t Stay Yuan Forever,” “Napoleon: A Short Story” and “The Space Race or Last One to the Moon Is a Rotten Egg.”
- The next activity is “Images and Photos.” Students view still photos and write summaries and reflections.
- In one activity, students read PowerPoints to each other, discuss the content and take notes. “Students don’t need teachers to read the slides to them,” McCabe said.
- The WebQuest activity challenges students to use secondary sources of information.
- Students view quotes shown on an overhead projector.
- In “Vocabulary Challenge,” students work in teams to complete a vocabulary matching game. The team that finishes in the least amount of time can skip the Friday vocabulary quiz. “Students use the time they once spent preparing for the weekly quiz to study harder to win the contest,” McCabe said.

McCabe reflected on the positives and negatives of rotation-based classroom activities: “On the negative side, it takes more preparation time; the room is arranged in a non-traditional pattern; funds are needed to support the technology; the room is sometimes noisy and appears to be chaotic, and students exhibit off-task behavior in the beginning,” he said. “The positives are that

rotating eliminates dozing; students ask better questions, and more teaching and learning are occurring.”

When SHS was identified by Kentucky as a “priority” school in 2011, it was required to engage in a turn-around process that included changes in the school leadership and faculty. Since September 2011,

the school’s Annual Measurable Objective (AMO) has risen 6.5 points toward the target set by the state.

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## High Schools Join to Use the LDC Writer’s Notebook for a ‘Campus Reads’ Program

In an era of accountability in education, the Literacy Design Collaborative (LDC) is a popular tool for schools seeking to improve their students’ literacy skills. Three schools in the **Cleveland Metropolitan School District** in Cleveland, Ohio, engaged their students in an all-campus reading program, Campus Reads, in 2012-13 to promote accountability and help students make decisions for the future.

Three educators took the lead at their schools: **Beverlee Austin**, librarian at **Washington Park Environmental Studies Academy** in Newburgh Heights; **Damon Holmes**, principal at **John Adams High School** in Cleveland; and **Aarion Hudson**, former English teacher and now assistant principal at **Martin Luther King Jr. High School** (MLK) in Cleveland.

The trio worked with **Diana Rogers**, coordinator of the HSTW Northeast Ohio region, to secure funding for the development of an LDC module built on three popular young readers’ books. A writer’s notebook was used in the Campus Reads program at all three schools. Designed by **Susan Rhoades**, HSTW LDC coach, it guides students through the process of an informational/explanatory module.

The books that students explored in the Campus Reads program were *The 7 Habits of Highly Effective Teens* by Sean Covey; *Who Owns the Ice House?: Eight Life-Lessons From an Unlikely Entrepreneur* by Clifton Taulbert; and *The Other Wes Moore: One Name, Two Fates* by Wes Moore.

In addition to reading the books, students received mission statements from multiple companies such as McDonald’s, Burger King and Sherwin Williams — plus the Cleveland Metropolitan School District — to see the value of articulating visions for their own development. Hudson asked students to design vision boards with words and pictures to show what they wanted to do in the future. “The vision boards allowed students to express themselves, to see where they came from and,

more importantly, to decide where they want to go,” Hudson said.

Holmes said Campus Reads is about empowering students. “These books promoted the idea of choice, helping students make educational decisions about the courses they would take,” he said. “Specifically, students became more interested in career-tech courses as they considered what they wanted to do. They were accountable for their decisions.”

Austin told how her school connected students and staff to the community and the school’s business partners. The partners visited classrooms for discussions and journaling on specific chapters and lessons.

All three schools reported higher completion rates on the written components of various state assessments. Students who had not entered anything in the constructed response boxes in the past were now filling up the space with answers. “In addition to a small improvement in test scores, we saw an increase in students’ confidence levels and comprehension in reading books,” Hudson said. “This is why MLK is spreading Campus Reads to include all grade levels.”

The district is building on the success of Campus Reads by including more schools and taking a cross-curricular approach in 2013-14. MLK ninth-graders will read *The 7 Habits of Highly Effective Teens*; 10th-graders will read *The Other Wes Moore*; juniors will read *Who Owns the Ice House?*, and seniors will read *The Immortal Life of Henrietta Lacks* by Rebecca Skloot.

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## The Socratic Model: Student Engagement and Rigor

English teacher **Chelsea Canterbury** and social studies teacher **Wendy Nichols** of **Tolles Career and Technical Center** in Plain City, Ohio, use the Socratic method to engage students in asking and answering questions to stimulate critical thinking and bring new ideas to light. They say it is compatible with the Literacy Design Collaborative (LDC) in that it aims for more rigorous and engaging instruction.

The teachers “hook” students on the instructional strategy with a quote from the Greek philosopher Socrates: “I am going to be corrupting the minds of young people.” “Most students have never participated in a Socratic Seminar,” Canterbury said. “Therefore, it is important to give them guidelines about expectations, rules and conversation.”

Students use Bloom’s Taxonomy to generate discussion questions to prepare for a seminar. They read a passage ahead of time and often write a journal response to extend their understanding of the text. They are told to come to the discussion prepared with questions to ask their peers.

Participants read the article provided and prepare three questions. Then they participate in the discussion, referring to questions or guidelines as necessary. Observers have these responsibilities: Read the article provided and generate questions; choose one “partner” participant to observe, and complete an observation form.

Canterbury and Nichols use these guidelines for a seminar:

- Students will come prepared with their journal responses and their questions.
- Each person will ask at least one question and provide at least two relevant responses.
- Each person will refer directly to the text at least once in the session.
- Participants will follow the rules, such as speaking one at a time, being courteous, listening actively, avoiding interruptions and inviting the opinion of others.

One example of a seminar topic is “The Lottery,” a short story on human behavior by Shirley Jackson. Students answer the following questions:

- Why do we feel that tradition is important? How does it help build community?
- Why does human nature find it difficult to change? When are the needs of the many more important than the needs of the individual?
- Why is it so easy to fall into a group/mob mentality? Describe a time when you did something to follow the group, even though you knew it was wrong.
- Why does sitting by and letting things happen make us uncomfortable? When is it important to become an advocate rather than a passive bystander? How does “The Lottery” illustrate these topics?

“Students must remember that a seminar is not a debate,” Nichols said. “It is a conversation to explore the text and our world.”

Both teachers provide an observation form and a reflection form. After checking off various characteristics of a speaker, students report the most interesting thing their partners said and what they would like for their partners to have said in the discussion. The reflection form is a rubric for self-evaluation. It asks these questions: 1) What did you like least about the seminar, and what did you like most? 2) What is one specific thing you learned from another student in the seminar? 3) What one topic did you contribute to the seminar?

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*One very effective way to increase student understanding is to use hands-on assignments that cause students in classrooms and labs to blend literacy, math, science, technology and 21st-century skills to complete complex, real-world projects. Students actively involved in learning are more apt to remember lessons that will benefit them in the future.*

## **Achievement Rises as Tech Center Blends Literacy With Career and Technical Education**

Administrative Director **Karen Pflugh** and the staff at **Greene County Career and Technology Center** (GCCTC) in Waynesburg, Pennsylvania, attribute the reading and writing progress of students at the center to literacy training. When Pflugh became director, student achievement was the lowest of any career-technology center in the state.

Turning to SREB for assistance, the director and four instructors participated in a year-long series of Literacy Design Collaborative (LDC) workshops aimed specifically at improving literacy in career-technical (CT) studies. The team attended seven days of intensive training and developed several LDC modules focusing on rigorous reading and writing tasks.

Pflugh acknowledged that teachers spent multiple days out of the classroom to complete the training, but she asked herself, “Do I want a headache for a few days or for a lifetime?” The director used Perkins dollars to pay for substitute teachers, giving GCCTC teachers time to participate in training and create their modules.

LDC’s modules lay out what tasks, skills, instruction and results are needed to embed literacy into assignments. The tasks set the stage for learning and should be rigorous, relevant to the curriculum and aligned with learning goals and standards.

Safety First is a module completed by GCCTC students focusing on the impact of the Occupational Safety and Health Administration (OSHA) on workplace safety. The task template (informational and descriptive) asked students to address the question: How do OSHA standards in the workplace reduce accidents? After reading teacher-selected text(s) on OSHA and workplace safety, students wrote an essay to describe OSHA safety standards. Students supported their discussion with evidence from the text(s).

Welding instructor **Shawn Golden** said one mini-task required students to debate and discuss the pros and cons of two welding machines. Teachers use a rubric to measure student performance on a module. The rubric allows teachers to review pieces of the module that need to be modified.

“This is where you measure students’ writing skills,” said **Desiree Dennison**, early childhood education instructor. “You have the flexibility to grade students on where they are personally and where they need to be.”

Seniors who complete a program at GCCTC are required to take the National Occupational Competency Testing Institute (NOCTI) exam in a career area. The NOCTI is a written and performance exam. **The percentage of GCCTC students passing the NOCTI exam rose from 45 percent in 2008-09 to 75 percent in 2012-13. Data showed that a high percentage of students had been failing the written portion of the exam while passing the performance portion. Students’ scores on the written portion rose six percentage points in just one year; their classroom reading and writing skills also increased after LDC was implemented.**

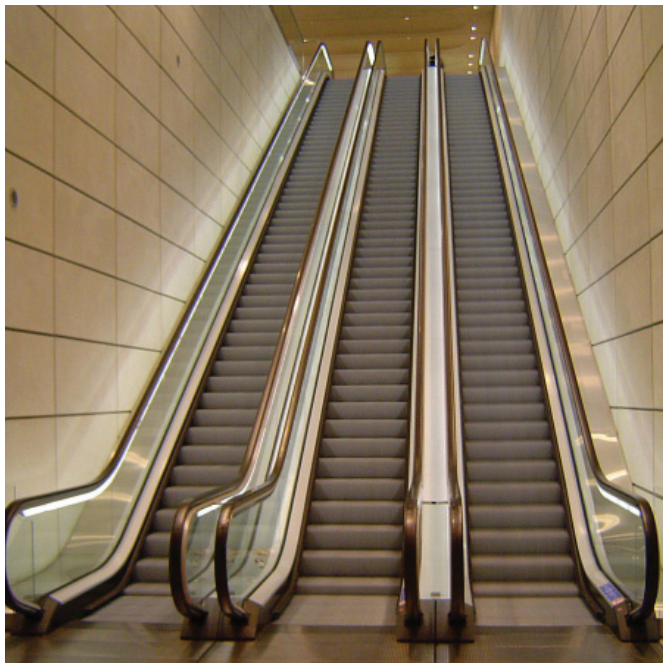
“The increase is directly linked to introducing literacy into the classroom,” Pflugh said. “Academic subjects are not taught at the center, so we have to integrate reading and writing into career-tech.”

GCCTC began schoolwide implementation of LDC modules for 2013-14. The staff works in collaboration with a reading coach and LDC-trained teachers to create and teach two modules each. Dennison is serving as lead teacher in this effort to engage all students in reading complex text and honing their writing skills.

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## There Is Hope: Get Off the Escalator!

Two people become immobilized when the escalator they are riding breaks down. They shout for help when all they need to do is walk down the steps that are no longer moving automatically.



“I felt like I was on that escalator, searching for a way to get students interested in reading,” said **Linda Moyer**, literacy integration instructor at **Bethlehem Area Vocational-Technical School** in Bethlehem, Pennsylvania.

Moyer decided to use **Ali Warren’s** book *Where Hope Lives* to get off the escalator, taking her students with her. Warren’s memoir describes her feelings of frustration and intimidation as she entered the world of firefighting at age 16. Harassed, discriminated against and misunderstood, Warren feared she would never fit into the male-dominated world of public safety. It was a career that most people told her was out of reach.

Warren used her inner strength and lessons learned from her own experiences to find her place in the world as a female firefighter. She was inspired when she heard of Angela Lee Duckworth’s research. Duckworth left a demanding job in consulting to teach math to seventh-grade students. As a psychologist assessing teaching experience, she became convinced that success is the result of having “grit” — passion and perseverance — to do something worthwhile.

Moyer introduced *Where Hope Lives* to a class of protective services students, including 28 males and three females. Students read the book and wrote letters to the author. One male student said it was the first book he had ever read! “I normally don’t like to read,” he said, “but your book is amazing.” Another student said the book taught him to follow his dreams, no matter who or what tries to deter him.

One of the vivid comments was from a female student who wrote, “The book changed my life in so many ways — socially and academically. I work harder in school. I’m talking to more people and making more friends. I have started a physical training program and have developed a ‘don’t quit’ spirit. Your inspiration helped me with a problem and made me realize that no matter how hard things may get, I will keep moving forward to be the best I can be.”

Moyer has three messages for educators: First, persevere when frustration and defeat seem to get the best of you; second, teach students how to persevere with a passion or dream; and third, don’t ever underestimate the power of student voices. Even when educators have good ideas and strong intuition, sometimes they must let students direct their learning.

**“These students embraced my expectation of reading and rose far beyond the challenge I set for them,” Moyer said. “Not only did they read the book from cover to cover and learn from Ali Warren’s lessons, but they also enthusiastically kept journals and reflected and shared their voices to help others pursue their dreams and ambitions.** I feel blessed to have had the opportunity to step off the escalator and bring encouragement, trust and hope to other educators through the BAVTS class project.”

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*Teachers constantly seek tools and strategies to engage students in deeper experiences and assignments that advance their reasoning, understanding and application of literacy, mathematics and science in academic and career-technical (CT) courses.*

### Merging Reading and Math: A Whole-Brain Approach

Reading math is not the same as reading literature, but it is just as important. “When students read mathematics, it helps them gain a deeper understanding of mathematics concepts,” said SREB literacy consultant **Lynda Gillespie**.

Gillespie dispelled math teachers’ most common fears related to blending literacy into math. “Mathematics teachers are afraid that literacy in mathematics is forced, added on or contrived,” Gillespie said. “They think they are being asked to be English/language arts teachers.”

**Instead, teaching literacy in math prepares students to use math terminology, read math to learn, and write to demonstrate learning.**

Gillespie discussed how hemispheres of the brain are used in reading and math. “Understanding what you read moves material from the left to the right

side of the brain,” she said. “It involves the whole brain and maximizes learning.”

The SREB literacy consultant shared six steps to teach reading in math classes:

1. Teach standard reading strategies.
2. Teach how to read a math textbook.
3. Teach students how to slow down to learn math.
4. Teach vocabulary that addresses the disciplinary literacy of math.
5. Teach double-entry note-taking customized for learning math.
6. Allow time for reading, collaboration and support.

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### Inspired Teaching Means Higher Student Achievement

**Mary Smith**, math teacher at **Lumberton Senior High School** in Lumberton, North Carolina, considered herself a very traditional teacher. Her students were expected to sit quietly and take notes as she lectured. “I didn’t even want them to breathe too loudly,” she remembered.

In December 2012 she attended training on the Mathematics Design Collaborative (MDC) led by SREB math consultant **Amanda Merritt**. “I decided to try the new approach with my students,” Smith said.

She was scheduled to teach Mathematics II in January 2013. Her classes were filled with low-income minority students. Nearly 75 percent of her students began the semester rated as Level 1 or Level 2 students.



North Carolina says Level 1 students “do not have sufficient mastery of knowledge and skills in this grade level or subject area to be successful at the next grade



level or at a more advanced level in this subject area.” Level 2 students “demonstrate inconsistent mastery of knowledge and skills in this grade level or subject area and are minimally prepared to be successful at the next grade level or at a more advanced level in this subject area.”

Smith implemented her first Formative Assessment Lesson (FAL) from the Mathematics Assessment Project (MAP) website at <http://map.mathshell.org/> in February 2013. Her students struggled with communicating about math during the lesson, but Smith was determined to change the learning culture in her classroom. She continued to improve her questioning strategies, develop lesson plans requiring students to discuss math with each other, and implement FALs.

**Throughout the semester, Merritt visited Smith’s classroom looking for evidence of MDC strategies. “What a difference!” Merritt said. “Mrs. Smith’s students went from being scared to look at each other to working together. They could use proper mathematics language to justify their reasoning.” Smith said her students are now “independent thinkers.”**

Math students agree that Smith’s classroom is different now. One student who had Smith for both Mathematics I (before MDC) and Mathematics II (after MDC), said the first class was boring. “It was hard to learn anything,” she said. “Mathematics II was more fun, and we got to work together with other students.”

Students took a benchmark exam at the end of the spring semester to determine progress they had made during the math course with MDC strategies. Smith compared the results with the first benchmark exam taken in February.

“It’s not about the quantity of problems anymore; it’s about the quality,” Smith said. She encouraged teachers to ask more questions and to allow students time to think and discuss math with each other.

In a value-added teacher summary for 2013, Smith was rated as a teacher whose students are making progress consistent with the standard for academic growth. Her rating exceeded the district average.

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### Math Students’ Achievement From Pre-Exam (Without MDC) to Post-Exam (With MDC)

TOTAL OF 3 CLASSES	FEB. 11, 2013 EXAM A	MAY 8, 2013 EXAM C	CHANGE IN PERCENT
Level 1	15 (32%)	4 (9%)	-23%
Level 2	20 (43%)	15 (32%)	-11
Level 3	9 (19%)	17 (36%)	17
Level 4	3 (6%)	11 (23%)	17
Total Students	47	47	
% Levels 3 and 4	26%	60%	35

## Math Literacy: Using Reading Strategies to Understand Math

Math teacher Andrew Turner and English teacher Andrea Turner at Central High School in Knoxville, Tennessee, collaborate to implement comprehensive reading strategies in math classes. The purpose is to increase students' proficiency in solving word problems.

They recommend a three-tier process for diagramming a word problem:

1. **Analyze the question.** Identify the purpose of the question and circle two to three pieces of information. Now rephrase the question.
2. **Accumulate what is given.** Record important numerical information, and think critically through the written vocabulary.
3. **Evaluate which method should be used to solve the problem.** Draw a picture or diagram and connect it to prior knowledge. Solve the problem and connect the sensible answer.

**Turner showed how Algebra I students' scores improved on the state Algebra I end-of-course exam between 2011 and 2012.**

	2011	2012
Below Basic	33	16
Basic	35	28
Proficient	21	27
Advanced	11	29

The two teachers attribute the gains to integrating reading strategies and literacy to improve math skills and raise student achievement.

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## Math Teachers Successfully Implement MDC Lessons and Tasks

Math teachers **Gretchen Greer** and **Jaime Long** implemented more than 30 Mathematics Design Collaborative (MDC) lessons and tasks in 2012-13 at **Piedra Vista High School (PVHS)** in Farmington, New Mexico. With that experience under their belts, they volunteered to share their findings with other teachers.

PVHS enrolls 1,400 students and is the largest of three high schools in the Farmington Municipal School District. The student demographics are 48.5 percent white, 25.3 percent Hispanic, 23.6 percent Native American and 2.6 percent other ethnicities. Thirty-two percent of students are eligible for free or reduced-price lunches.

Working together, Greer and Long use Formative Assessment Lessons (FALS) and tasks from the MDC and the Math Assessment Program (MAP). The lessons are available at <http://map.mathshell.org>. Examples from the website used successfully are Solving Linear Equations in One Variable, Manipulating Polynomials, Classifying Solutions to Systems of Equations, and Interpreting Distance-Time Graphs.



### Pre- and Post-Assessments

Greer and Long begin by giving students a pre-assessment to determine gaps in instruction and students' misconceptions about the process. Students are grouped in pairs. After completing the activity, they take a post-assessment.

**“We have found that students' understanding improves from the pre-assessment to the post-assessment,” Greer said. “The engagement in my classes is amazing when compared with other**

**activities I've tried in the past. Students who normally struggle are now participating with confidence, while students who have excelled with traditional instruction are now communicating their thinking. It challenges both groups of students to prove their conceptual understanding."**

Greer began "flipping" her classroom to allow more time for class activities. By assigning students to view lecture materials at home on their school-provided laptops or on YouTube, she has created more time to question and work with students in the classroom. "This approach has been well-received by many students and their parents," Greer said.

### **The Academy at Semmes: A Successful Approach to College and Career Readiness**

Students at **Semmes Middle School (SMS)** in the Mobile County Public School System in Mobile, Alabama, do not have to wait to start getting college- and career-ready. Those enrolled in **The Academy at Semmes** are making progress outpacing that of other middle grades students in the system.

Principal **Brenda Shenesey** and the leadership team had a vision of a school-within-a-school to meet the expectations of a rapidly changing suburban community, prepare students to enter newly designed signature college/career pathways at the high school and encourage high-performing students to stay in the community during the middle grades. The vision became a reality when the academy opened in 2012-13.

Semmes students enter **Mary G. Montgomery High School** for grades nine through 12. MGM opted in 2011-12 to become a Signature School of Excellence with High Schools That Work and to develop academic and career pathways for every student — not just the highest performing students. Semmes wants its middle grades students to be ready for high school success.

The Academy at Semmes began with teachers selected on the basis of their applications and a strong desire to work with students who welcome challenging instruction. There is an application process for students and higher expectations for everyone. The academy's objectives are:

- to develop an academic setting that will keep top-performing students actively engaged;
- to provide a rigorous curriculum in a college preparatory environment;

Greer said she and Long have seen increased participation by even the most reluctant students during everyday classroom instruction. "We are excited about the changes and feel we are helping our students prepare for full implementation of the college- and career-readiness standards next year," Greer said.

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- to prepare students to be successful, honors-level high school students;
- to provide the necessary faculty, technology and other services at minimum or no increased cost to the school budget; and
- to strive for an atmosphere of peer support and collaboration among teaching staff.

*In interviews, students mentioned the wide variety of activities, including original video clips, career dress days, field trips and extended excursions to points of interest in and out of state for each grade level.*

One question stood out: Are there enough students who want the additional challenge and increased expectations? Shenesey and her administrative team brainstormed ideas and strategies about criteria for admission. They developed an application form, put information on the school website and spread the news in the community. The response was tremendous.

The academy opened with 300 students in grades six through eight. Selection was based on academic achievement, attendance and behavior. The enrollment grew to 370 students for the 2013-14 school year. The total enrollment at SMS, the largest middle grades school in the state, is 1,598.

## Teachers Came Aboard

All academy teachers came from the SMS faculty. Applicants participated in an individual interview with an independent committee composed of educators and community leaders. The committee completed a rubric and offered positions to the top-scoring applicants.

Every reading and math teacher at the academy attended SpringBoard (pre-Advanced Placement) professional development and is using the materials regularly to increase instructional rigor. Non-academy students can also enroll in advanced core classes available at each grade level.

Teachers use project-based learning in all academy classes. The department chair in **math** and several teachers attended a Mathematics Design Collaborative (MDC) workshop on Formative Assessment Lessons (FALs) aligned to the college- and career-readiness standards (CCRS). The Literacy Design Collaborative (LDC) teams are cross-curricular and are focusing on modules with **reading and writing embedded** into the format. All **science** teachers are trained for the Alabama Mathematics and Science Technology Initiative (AMSTI) lessons. STEM (science, technology, engineering and mathematics) projects are required each quarter in 2013-14.

Although there are no special education teachers in the academy, all students benefit from required extra help, explicit instructional strategies, hands-on assignments and teamwork. They participate in field trips and celebrations.

“The culture in the academy is so positive and rewarding that the extra work encourages more rather than less concentration, thinking and in-depth ideas,” Sheneseey said. “Students feel intrinsically rewarded for doing the work, completing assignments and thinking through

problems.” In interviews, students mentioned the wide variety of activities, including original video clips, career dress days, field trips and extended excursions to points of interest in and out of state for each grade level.

## Parents Are Enthusiastic

Parents responded very favorably in recent surveys. More than 98 percent said they strongly agree or agree about the positive impact of the academy. The highest percentage score was for the statement, “I would recommend the academy to others.” Parents and students appreciate the high standards, positive learning environment and high-quality lessons that reduce boredom and encourage creativity.

Comments from parents described a tightly orchestrated environment with high expectations and few distractions, strong school-to-family communication, and outstanding life lessons from teachers. Students are pushed to grow individually and challenged to achieve and take responsibility for their lives.

In the future, academy educators hope to offer a technology program with “smart devices” for each student, expanded paperless classrooms that incorporate Moodle and Google access, and new classes in foreign languages and fine arts.

## What About Achievement?

Data from the Mobile school system’s End of Quarter Tests (EQT) provided evidence that students in The Academy at Semmes are successful. Academy students exceeded the district’s Proficiency percentages on the EQTs when compared to Advanced students in core content areas. A higher percentage of academy students, compared with students from other middle grades schools in the district, met expectations.

## Comparison of The Academy at Semmes Middle School Students With Mobile County Public School System Middle Grades Students End of Fourth Quarter Test Scores 2012-13

GRADE 6	MATH 6+	ADVANCED SCIENCE	READING	SOCIAL STUDIES
MCPSS	88%	84%	81%	72%
The Academy at Semmes	89	87	99	100

GRADE 7	MATH 7+	ADVANCED SCIENCE	READING	GEOGRAPHY
MCPSS	64%	88%	66%	91%
The Academy at Semmes	65	99	99	98

GRADE 8	MATH 8+	ADVANCED SCIENCE	ADVANCED LANGUAGE	SOCIAL STUDIES
MCPSS	85%	86%	72%	77%
The Academy at Semmes	92	98	97	100

Note: The numbers indicate the percentages of students making 70 or above on the EQT.

The motto for Alabama’s 2020 Plan is “Every child a graduate — every graduate prepared for college/work/adulthood in the 21st century.” The Mobile County Public School System, in cooperation with the Mobile Area Education Foundation and community leaders, expects 80 percent of students graduating ready for college

and careers by 2020. “Every student at The Academy at Semmes is expected to be ready for high school, and academy leaders are working to make it happen,” Sheneseay said.

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## Using the LDC Framework in Middle Grades Classrooms Across the District

*“We see the benefits of using the LDC framework and like the assurance of knowing that this model provides a focus on literacy and cognitive rigor for students and provides excellent planning tools and templates for our teachers.”*

Middle grades teachers in the **Bladen County School District** in Elizabethtown, North Carolina, were joined by district and school administrators when they received training in implementing the Literacy Design Collaborative (LDC). “The purpose was to acquire reading and writing strategies to help students meet the College- and Career Readiness Standards (CCRS),” said **Tanya Head**, assistant superintendent for curriculum and instruction. “Our teachers knew they would need to make changes to increase the number of students who are prepared to meet high school readiness standards.”

Initially, school administrators and several teachers from the content areas of English/language arts (ELA), science, social studies and career and technical education represented each of the five middle grades schools during three days of LDC training. After developing and teaching one module during the fall 2012 semester, participants paired with a “buddy teacher” to provide support and guidance in developing and teaching an LDC task.

During the second semester, the trained LDC teachers developed another LDC module while continuing to guide and support other teachers in developing their own modules. The district also provided ongoing coaching services from SREB consultants **Loretta Hagen** and **Steve Hagen**. Through the collaborative efforts of coaching experts and quality LDC teachers, the district developed a district-level training team that served as school-level coaches, provided additional professional development in the district and presented to other groups interested in LDC both in the state and at the HSTW Staff Development Conference in July 2013.

Members of the first training group planned and conducted a districtwide LDC in-service event for all middle grades teachers during the second semester and supported additional LDC training during the summer. Each teacher leader on the training team shared how the development and implementation of LDC had generated positive results by improving:

- writing across the board for all students (and teachers);
- school and district benchmark and common assessment scores associated with writing; and
- grade-level collaborative planning for interdisciplinary modules and scoring students' written products.

## Increased Confidence

Confidence for implementing CCRS began to emerge as teachers consistently met to design LDC modules. During collaborative discussions, they identified literacy strategies to ensure that CCRS were being addressed across all content areas.

## Stop Saying Your Students Can't Write: They Can!

Do your students jump up and down with excitement when a writing assignment is mentioned in the classroom — or just the opposite? Does “essay writing” make your students want to run away from school?

**According to Keyanna Cole**, sixth-grade language arts and science teacher at **Honeysuckle Middle School** (HMS) in Dothan, Alabama, it is possible for teachers to use strategic planning to help change reluctant writers into “amazing” writers. Some of the strategies are active reading, chunking texts, scaffolding, graphic organizers, citing evidence and peer review.

HMS enrolls 620 students. Eighty percent are minority students; 75 percent qualify for free or reduced-price lunches; two-thirds are from single-parent homes.

“Students expect to write in language arts classes, but they don't think about needing to read and write in science classes,” Cole said. Forging ahead, she has convinced students, parents and other teachers that success is possible in any classroom through the Literacy Design Collaborative (LDC) process.

After implementation of the first and second LDC modules, the initial group of teachers assessed changes in their students' academic performance. **One ELA teacher said, “As a result of collaboratively planning LDC modules with grade-level content-area teachers, I found that my students were better prepared for district and state writing assessments. Not only could they write about the content topics, but all of them displayed above-average confidence in the ability to positively tackle informational as well as expository writing.”**

LDC provided a framework for middle grades teachers to plan quality lessons that result in high-quality student work. “We see the benefits of using the LDC framework and like the assurance of knowing that this model provides a focus on literacy and cognitive rigor for students and provides excellent planning tools and templates for our teachers,” Head said. “It is exciting to see quality student work products that are aligned with the anchor standards for college and career readiness.”

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## A Module on Space Missions

As the author of two LDC modules, Cole developed LDC tasks to address state standards required in sixth-grade science. Beginning with the Critical Focus question, the three-week module states: How have various space missions and probes provided information about the planets and moons in our solar system? After reading the Alabama Math, Science, and Technology Initiative (AMSTI) textbook and selected articles, write an essay that describes how space missions and probes provide information about our solar system and addresses the question. Support your discussion with evidence from the text(s).

With the end in mind, Cole works through a task analysis sheet and helps groups of students comprehend and break down each segment of the task line-by-line through discussion and questions: What words are unfamiliar? What seems hard about the task? What do you think the task is asking me? How can I put this task in my own words?

Cole implements text reading in the classroom by helping students identify text that promotes active reading. She shows them how to chunk the text and to use scaffolding and a graphic organizer. To chunk is to present new information in small, digestible bites. Each graphic organizer addresses cause and effect, the main idea and a summary of the text.

Each student develops a writer's notebook (in a file folder) that includes all materials needed to complete a task. Students file everything from a task analysis through jot notes for each article, all documents, notes, a peer review, annotation guides, essay drafts and final essays.



“Students feel more confident in their writing when their information is organized, their notes are accurate and important information is easier to locate,” Cole said.

## Literacy Design Collaborative (LDC): A Schoolwide Model for Success

Some teachers who have been introduced to the Literacy Design Collaborative (LDC) may feel overwhelmed by what it will take to implement the design. The answer is collaboration by faculty members to ensure the success of students in improving reading and writing skills.

**Whitesburg Middle School** (WMS) is a small school comprising grades six through eight in Whitesburg, Kentucky. After WMS adopted LDC in fall 2011, the staff asked, “How are we going to integrate a full module in the classroom and still teach the required content?”

Teamwork became the norm in completing the LDC modules, and most non-math teachers at WMS completed at least one full module during the first year.

## Transition to Writing

Using a “hamburger” approach, Cole helps students make the connection between reading and writing. “A hamburger graphic organizer — putting information in layers — takes away the anxiety of writing an essay and requires students to focus on one paragraph at a time,” she said. “Students focus on the topic sentence and then cite evidence to support it.” Cole discusses the characteristics of a good paragraph, reminding students that writing is a formative process that requires patience and moves slowly.

The process of writing an essay includes five steps: prewriting, drafting, revising, editing and publishing. Students transfer their “hamburgers” into a paper. Five paragraphs result in a five-paragraph essay. HMS students used notes from their peers to rewrite draft essays and submitted a final draft to the teacher.

Cole defended the use of peer review and a student annotation guide. “Students find run-on sentences, paragraphs that are on or off the topic, lack of evidence from the text, indentions, a thesis statement and misspelled words,” she said.

“Students can learn to read and write,” Cole said. “These sixth-graders did it. They said they couldn’t write the assigned essay, but when all of their excuses were eliminated, they had no other option but to comply.”

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The faculty met with SREB consultants periodically through the year to check on progress and gather suggestions; they also met during and after school and exchanged emails.

## Strange Phenomenon

“As the year progressed, a strange phenomenon began to occur,” said social studies teacher **Brian Breeding**. “The staff found ourselves talking about LDC during morning duty, at lunch and when we met in the halls. We began asking each other how we could help with a particular module that a teacher was completing.”



The light bulb came on. “We realized that if we worked together to create modules to which everyone could contribute, we would accomplish the goal of teaching reading and writing across the curriculum at a rigorous level,” Breeding said. “We ended the year feeling a great sense of accomplishment and looking forward to the next year.”

Breeding works in collaboration with English/language arts teachers for students in grades seven and eight. He teaches content, argumentation and critical thinking skills to prepare students to complete modules in their English/language arts classes. “The modules I teach are aligned with the types of writing in English/language arts classes; therefore, my students can complete much of the writing process in their regular English/language arts classes,” he said.

## How to Contribute

He gave an example of how non-English/language arts teachers can contribute to an LDC task. Assume that the task consists of the following: *“Was the Declaration of Independence a formal declaration of American independence or a propaganda tactic used to boost colonial morale? After reading the piece of known propaganda “Common Sense,” the Declaration of Independence itself and viewing the image “The Bloody Massacre,” write an editorial that addresses the question and support your position with evidence from the texts.*

*Be sure to acknowledge competing views. Give examples from past or current events or issues to illustrate and clarify your position.”*

Social studies teachers could focus on the content; art teachers could ask students to examine colonial artwork such as “The Bloody Massacre;” math teachers could assign students to statistically analyze and compare the success rate of colonists before and after the signing of the Declaration of Independence, and psychology, sociology, science or practical living teachers could ask students to analyze propaganda and tell why it is effective.

“This transformation to LDC would not have been possible if the staff at WMS had not been able to work together,” Breeding said. “The teachers at our school make a great team because we are all focused on a common goal — maximum student success. We trust each other and work together to ensure that all students achieve at a high level.”

Breeding encourages teachers to begin to generate ways in which different content specialists can contribute to a single task. “I feel confident that LDC will continue to spread and to foster truly effective teamwork,” he said.

**Crediting LDC with playing a major role in increases in student achievement, Breeding cited the following evidence: “The school’s scores on Kentucky’s EXPLORE assessment in reading rose .7 percentage points in 2013 as compared with previous years,” he said. “Our Kentucky Performance Rating for Educational Progress (K-PREP) scores in writing resulted in 36.8 percent of Whitesburg Middle School students scoring Proficient/Distinguished, a marked improvement from previous years.”**

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## Formative Assessment Is Good Teaching!

Math teacher **Tonya Carrell** of **Carlsbad High School** (CHS) in Carlsbad, New Mexico, uses many formative assessment lessons in her classroom daily to check on students' progress. "Formative assessment is good teaching," she said.

CHS is a comprehensive high school with 1,610 students. The ethnic distribution is almost 52 percent white and almost 48 percent Hispanic with less than .5 percent black students and Native Americans.

The formative assessment lessons are part of the Math Assessment Project (MAP) and the Mathematics Design Collaborative (MDC). They can be found at <http://map.mathshell.org/materials/lesson.php>.

Carrell uses formative assessment throughout daily instruction to adjust her teaching to meet the needs of students. "I believe it should be done every 20 minutes to determine if students understand the material or if additional instruction is needed," she said.

The Five Strategies of Assessment for Learning are part of Carrell's instruction:

1. Clarify and share learning intentions and criteria for success.
2. Engineer effective classroom discussions, questions and learning tasks that elicit evidence of learning.
3. Provide feedback that moves learners forward.
4. Activate students as owners of their own learning.
5. Activate students as instructional resources for one another.

Each strategy is described in the book *Embedded Formative Assessment* by Dylan Wiliam. The book contains more than 50 types of formative assessments that can be used in all classrooms.

Some of the strategies are ABCD cards, ABCD corners, A or nothing, ask the audience, best accent competition, best composite exam paper, best example discussion and choose-swap-choose.

Carrell has learned that it is important to use both formative and summative assessment as part of unit planning. She knows summative assessment is something she can grade and place in her grade book. It tells how much a student has learned as a result of previous instruction.

Formative assessment, however, tells where a student can benefit from changes in instruction or how they benefitted from changes while the instruction was ongoing. Carrell uses many formative assessment techniques, including exit tickets and clickers. An exit ticket is a card or piece of paper on which a student has written the answer to a question posed by the teacher in the last 15 minutes of the class period. Students hand in the tickets as they exit the classroom, and Carrell reviews them before the class meets again. In the next session, she uses group work or peer tutoring to help students understand the content or does bell work on different problems with the same concept. Bell work is schoolwork that students do at the beginning of a class period. Clickers are a classroom response system that uses technology to collect and display students' input. Carrell also uses the websites [polleverywhere.com](http://polleverywhere.com), [socrative.com](http://socrative.com) and [einstruction.com](http://einstruction.com).

**The New Mexico School Grading system gave Carlsbad High School a final grade of A for 2013. The percentage of students who were Proficient in math at CHS rose from 35 percent in 2010 to almost 46 percent in 2012.**

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