

Curriculum reView

CIA Director - Dr. Joe Pierce

Dear PC Colleagues

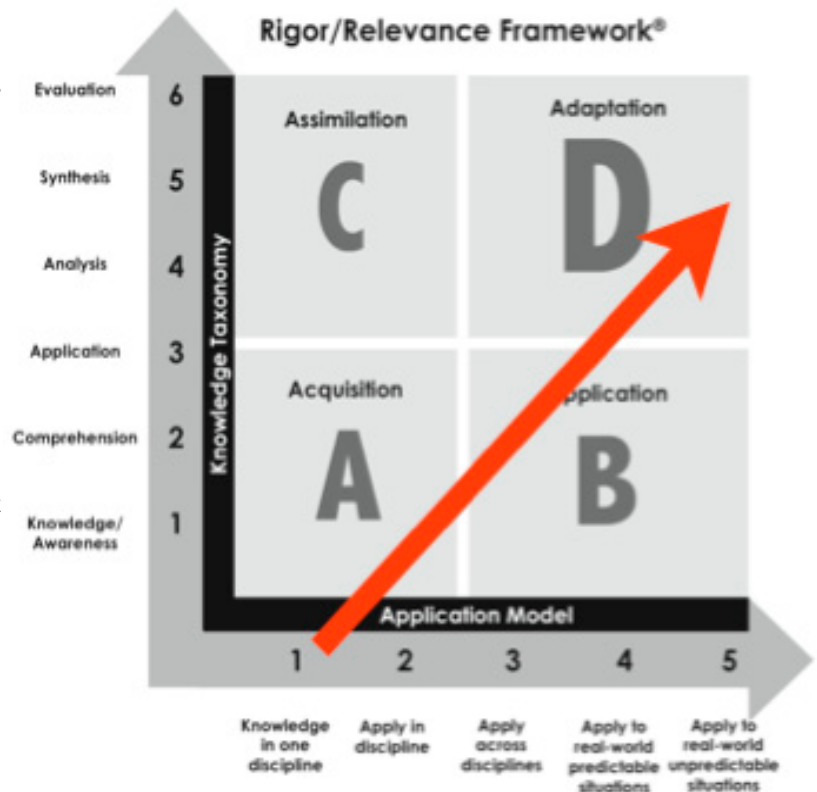
I know that many of you in the past two or three months have developed at least a basic acquaintance with Common Core State Standards (CCSS). The question now is, “How we can move beyond a basic awareness level and begin to actually put a few CCSS-related concepts into practice-- right now?”

One of the ways you can begin to incorporate CCSS concepts into your instruction is to increase your use of Quadrant D learning. What does that mean?

You may remember that, as part of our back-to-school meetings, Mr. Hurst shared the notion of the “Rigor/Relevance Framework,” a graphic device that helps us understand how to make sure rigor and relevance are both operating at high levels.

By that, I mean teaching with greater relevance (authentic application of learning in unpredictable situations) plus teaching at a high level of rigor on the knowledge taxonomy (e.g. Yes, it’s Bloom’s taxonomy that we all learned about in college). This is what I mean by being in “Quadrant D.”

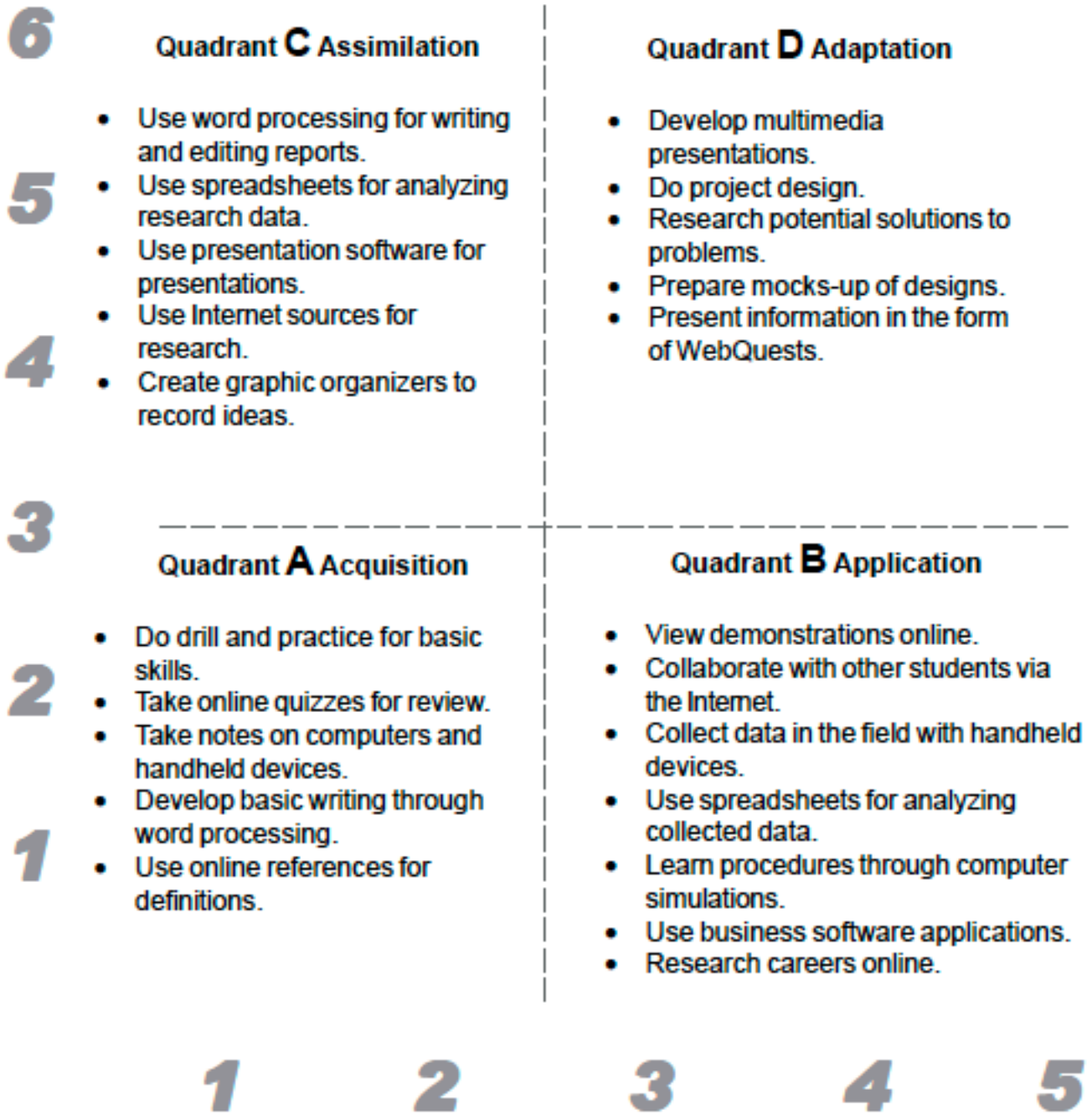
Learning in all quadrants is essential, but it’s here in Quadrant D where the best of the other quadrants is pulled together for the most meaningful and important learning.



(continued on pg. 2)

Below you'll find examples of some Quadrant D instructional tools you can use today! For example, you can drive more of your instruction into Quadrant D by the kinds of questions you ask. You can use this information now... even in advance of CCSS full implementation.

Technology Applications for Rigorous and Relevant Learning



Teacher Questions by Quadrant

Ask questions to summarize, analyze, organize, or evaluate:

- How are these similar/different?
- How is this like _____?
- What's another way we could say/explain/express that?
- What do you think are some reasons/causes that _____?
- Why did _____ changes occur?
- How can you distinguish between _____?
- What is a better solution to _____?
- How would you defend your position about _____?
- What changes to _____ would you recommend?
- What evidence can you offer?
- How do you know?
- Which ones do you think belong together?
- What things/events lead up to _____?
- What is the author's purpose?

Ask questions to predict, design, or create:

- How would you design a _____ to _____?
- How would you compose a song about _____?
- How would you rewrite the ending to the story?
- What would be different today, if that event occurred as _____?
- Can you see a possible solution to _____?
- How could you teach that to others?
- If you had access to all the resources, how would you deal with _____?
- How would you devise your own way to deal with _____?
- What new and unusual uses would you create for _____?
- Can you develop a proposal that would _____?
- How would you have handled _____?
- How would you do it differently?

C **D**
A **B**

Note: Quadrants B and D involve students "doing" as well as answering questions, but these questions help to move students toward increased relevance.

Ask questions to recall facts, make observations, or demonstrate understanding:

- What is/are _____?
- How many _____?
- How do/does _____?
- What did you observe _____?
- What else can you tell me about _____?
- What does it mean _____?
- What can you recall _____?
- Where did you find that _____?
- Who is/was _____?
- In what ways _____?
- How would you define that in your own terms?
- What do/did you notice about this _____?
- What do/did you feel/see/hear/smell _____?
- What do/did you remember about _____?
- What did you find out about _____?

Ask questions to apply or relate:

- How would you do that?
- Where will you use that knowledge?
- How does that relate to your experience?
- How can you demonstrate that?
- What observations relate to _____?
- Where would you locate that information?
- Calculate that for _____?
- How would you illustrate that?
- How would you interpret that?
- Who could you interview?
- How would you collect that data?
- How do you know it works?
- Can you show me?
- Can you apply what you know to this real-world problem?
- How do you make sure it is done correctly?

As you write lesson plans, tests, or homework questions, use more Quadrant D verbs:



Verb List by Rigor/Relevance Quadrant

Notes:

- Verbs are not always an absolute indicator of the level of rigor and relevance. Also consider the context and work in which students are engaged when determining the level of rigor and relevance.
- Some verbs are listed in multiple quadrants.
- Verbs are listed where they are used most frequently.

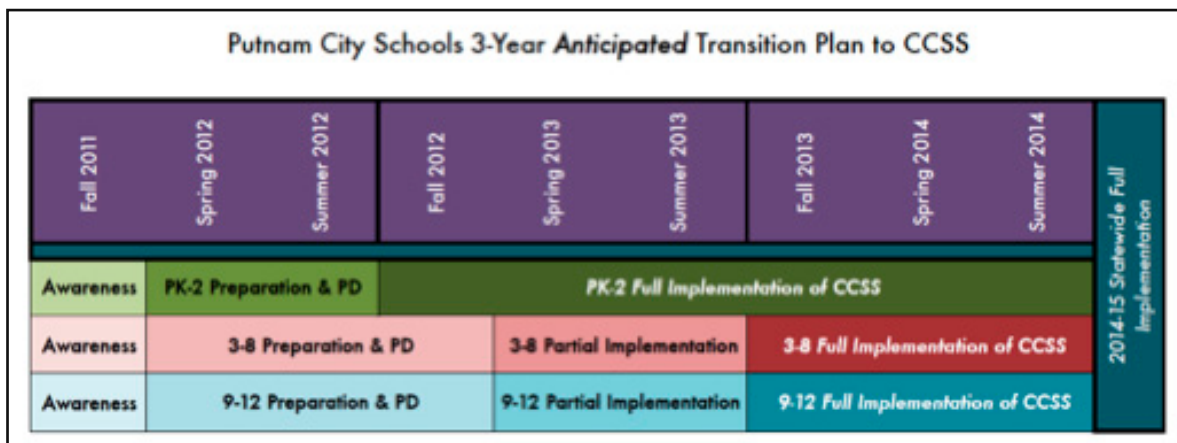
C	
analyze	differentiate
categorize	discriminate
classify	evaluate
compare	examine
conclude	explain
contrast	infer
defend	judge
diagram	justify
	prove

D	
adapt	justify
argue	modify
compose	predict
conclude	prioritize
construct	propose
design	rate
evaluate	recommend
formulate	revise
invent	teach

A	
calculate	match
choose	memorize
count	name
define	recall
describe	recite
find	record
identify	select
label	spell
list	
locate	

B	
adjust	interpret
apply	interview
build	make
calculate	model
construct	play
demonstrate	produce
dramatize	relate
draw	sequence
follow	show
illustrate	solve
	use

In conclusion, I want to share with you that the district administrative team has been working on a preliminary transition plan for the district. We have drafted an anticipated time line so that we can fully implement the CCSS prior to the state requirements that are associated with the Next Generation of Assessments beginning in 2014-15.



Using Similarities and Differences with ELL Students

Identifying similarities and differences is one of the top nine Marzano's instructional strategies. In this short article, you will learn how to adapt this highly effective strategy to your lesson delivery in an effort to support English language learners (ELLs). According to Hill and Flynn (2006), "When we ask ELLs to identify similarities and differences, we give them the opportunity to learn content at a deeper level "(p.101). This task creates an environment in which ELL students can draw on their prior knowledge, negotiate new meanings, and rationalize their answers.

Marzano, Pickering, and Pollock (2001) identify four generalizations from the research on identifying similarities and differences.

1. Teacher-directed activities deepen understanding for students and increase their ability to use knowledge.

When using similarities and differences activities in your classroom, you should keep in mind that some of your ELL students are not able to understand verbal explanation. Hill and Flynn (2006, p.102) suggest that you do the following:

- Represent what you say with visuals
- Use short, simple sentences with clear articulation
- Include gestures and facial expressions
- Use high-frequency vocabulary
- Reduce idiomatic expressions

2. Students should independently identify similarities and differences.

Try to start with simple comparisons. ELL students at the early stage of language development benefit from comparing familiar objects, including school lunches, classroom objects, movies, and other common items. Over time, push ELL students to master academic words as they will need them for standardized assessments. The aim is to introduce cognitively challenging activities to ELL students through comprehensible input.

3. When students represent similarities and differences in graphic or symbolic form, it enhances their ability to identify and understand similarities and differences.

Because of limited vocabulary, ELL students do struggle to understand spoken English. Using visual representation with verbal and written information, you will be able to help ELL students make connections and construct meaning. You can make use of Google Images to locate appropriate pictures for the vocabulary you are using with graphic organizers. A picture is worth a thousand words.

4. There are four different forms of identifying similarities and differences: comparing, classifying, creating analogies, and creating metaphors.

These forms of identifying similarities and differences are definitely difficult for ELL students at the early stage of language acquisition. You can facilitate understanding by comparing two items according to their various attributes, including color, size, shape, function, composition, and other of objects of similar complexity. In doing so, ELL students will be able to point to objects or use one –or two-word responses. Keep in mind that creating metaphors requires a high-level of language usage.

I appreciate your commitment to doing whatever it takes to meet the learning needs of English language learners in the mainstream classroom. Your willingness to stay abreast of the latest instructional strategies in the field of second language acquisition is of paramount importance. Together, we can provide all students with a first-class education.

References

- Hill, J.D., & Flynn, K. M. (2006). *Classroom instruction that works with English language learners*. Alexandria: VA: Association for Supervision and Curriculum Development.
- Marzano, R. J., Pickering, D. J., & Pollock, J. E. (2001). *Classroom instruction that works: Research-based strategies for increasing student achievement*. Alexandria, VA: Association for Supervision and Curriculum Development.

Secondary Language Arts - Raneë Staats

The National Council of Teachers of English and The Council of Writing Program Administrators, together with the National Writing Project have developed a framework for writing. The document includes habits of mind which refers to ways of approaching learning that are both intellectual and practical and that will support students' success in a variety of fields and disciplines.

The Framework explains how teachers can foster these habits of mind through writing, reading, and critical analysis experiences. These experiences aim to develop students'

- Rhetorical knowledge – the ability to analyze and act on understandings of audiences, purposes, and contexts in creating and comprehending texts;
- Critical thinking – the ability to analyze a situation or text and make thoughtful decisions based on that analysis, through writing, reading, and research;
- Writing processes – multiple strategies to approach and undertake writing and research;
- Knowledge of conventions – the formal and informal guidelines that define what is considered to be correct and appropriate, or incorrect and inappropriate, in a piece of writing; and
- Ability to compose in multiple environments – from traditional pen and paper to electronic technologies.

This information continues in PDF and if you would like the entire brief, email me your request and I will gladly share it.

As we continue to enhance the writing curriculum and prepare for the transition to the Common Core State Standards, please take some time to review the following resources and websites. There are some wonderful examples and resources included that can be shared with students.

Resources for teaching writing and grammar:

<http://grammar.ccc.commnet.edu/grammar/composition/composition.htm>

<http://grammar.ccc.commnet.edu/grammar/index.htm>

Slideshare of argumentative writing:

<http://www.slideshare.net/MurrayHillPD/argumentative-writing-8995564>

A great source for ANY content area (Internet4classrooms) - Ideas for writing at all levels:

http://www.internet4classrooms.com/lang_write.htm

The Tennessee Comprehensive Assessment Program (TCAP) Writing Assessment requires students to write a rough draft essay in response to an assigned prompt (topic) within a limited time period. Eighth-grade students are asked to write an expository essay (an explanation), and eleventh-grade students a persuasive essay (an argument). The writing samples are scored holistically. Sample writing prompts, samples of students' responses, as well as examples of scored papers are provided.

<http://www.tn.gov/education/assessment/writing.shtml>

This resource begins with a general description of essay writing and moves to a discussion of common essay genres students may encounter across the curriculum. The Modes of Discourse: Description, Narration, Exposition, Argumentation are all explained in detail.

<http://owl.english.purdue.edu/owl/resource/685/1/>

Social Studies - Brenda Chapman

Celebrate Freedom Week

George Washington said, "The willingness with which our young people are likely to serve in any war, no matter how justified, shall be directly proportional to how they perceive veterans of early wars were treated and appreciated by our nation." "A nation reveals itself not only by the men it produces, but also by the men it honors, the men it remembers." John F. Kennedy, October 26, 1963. In order to educate Oklahoma students about the sacrifices made for freedom on behalf of the country and the values on which this country was founded, November 11 has been designated "Veterans Day," and the week in which November 11 falls has been designated "Celebrate Freedom Week" for the public schools of Oklahoma. This year Celebrate Freedom Week will be observed November 7-11.

As part of a social studies class, during Celebrate Freedom Week appropriate instruction concerning the intent, meaning, and importance of the Declaration of Independence and the United States Constitution, including the Bill of Rights, in their historical contexts shall occur. The study of the Declaration of Independence is to include the study and the relationship of ideas expressed in that document to subsequent American history, including the relationship of its ideas to the rich diversity of our people as a nation of immigrants; the American Revolution; the formulation of the United States Constitution; the Abolitionist Movement, which led to the Emancipation Proclamation; and the Women's Suffrage Movement.

Students in Grades 3-12 shall study and recite the following from the Declaration of Independence:

We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain unalienable Rights, that among these are Life, Liberty and the pursuit of Happiness. --That to secure these rights, Governments are instituted among Men, deriving their just powers from the consent of the governed.

The board of education of each public school district shall ensure that each school in its district will on Veterans Day conduct and observe an appropriate Veterans Day Assembly program of at least one class period that remembers and honors American veterans. In addition, schools may choose to have a one-minute moment of silence beginning at 11:00 a.m. on November 11.

I have sent out curriculum resources to secondary teachers about using the Arab Spring and connecting it to the Declaration of Independence. This is a great lesson in the spirit of the law. Elementary schools often have students dress in red, white, and blue and have students invite family members who are veterans to attend their assembly. There is a video on .pc that has the different branches of military and their songs. There is a great video made a few years ago by Jennifer Love Hewitt that stresses the importance of veterans. There are several videos made that have celebrities reading the Declaration of Independence. There is a music video using the song It Is Too Late To Apologize - http://www.youtube.com/watch?v=uZfRaWAtBVg&safety_mode=true&persist_safety_mode=1&safe=active The following is a link to the Department of Veteran Affairs and it has this year's poster and other resources to celebrate 11.11.11. <http://www.va.gov/opa/vetsday/>

The Oklahoma State Department of Education also has a wealth of resources at <http://sde.state.ok.us/Curriculum/CurriculumDiv/SocialStudies/celebrate.html>

The following is a more elementary focused site – VA Kids <http://www.va.gov/kids/k-5/index.asp>

Common Core in Social Studies Part 2

Common Core Reading Standard 2 for Social Studies is entitled Summarize Central Ideas. The standard for Grades 6-8 is: Determine the central ideas or information from a primary or secondary source; provide an accurate summary of the source, distinct from prior knowledge or opinions. The standard for 9-10 is: Determine the central ideas or information

from a primary or secondary source; provide an accurate summary of how key events or ideas developed over the course of the text. The standard for 11-12 is: Determine the central ideas or information from a primary or secondary source; provide an accurate summary that makes clear the relationships among the key details and ideas.

Understanding the topic of a textual passage, the “gist”, or the central idea(s) of a textbook chapter, an article, or primary sources is a sophisticated reading task. Being able to draw conclusions, evaluate, and critically interpret text is important for overall comprehension in reading. Textbook chapters, articles, and even individual paragraphs all have main (central) ideas. The topic of a text is the broad, general theme. It is what some call the “subject”. The main (central) idea is the “key concept” being expressed or the “message”. Details, whether major and minor, support the central idea by telling how, what, when, where, why, and how. Locating the main idea and supporting details helps a student understand the point(s) the writer is attempting to express.

Lesson ideas: The main idea is the most important piece of information the author wants you to know about the concept of a paragraph. A writer will state his/her main idea explicitly somewhere in the paragraph. That main idea may be stated at the beginning of the paragraph, in the middle, or at the end. The sentence in which the main idea is stated is the topic sentence of that paragraph. Read one paragraph from the student textbook or primary source. Using the “Think, Pair, Share” strategy, ask students, working individually, then in pairs, to underline with a highlighter the statement or phrase which students believe to be the topic sentence expressing the central idea of the entire paragraph. Ask student pairs to share with the class their findings. Does every pair agree? Why or why not? Do students see patterns used by one author? (For example, is the topic sentence always found at the beginning of the paragraph?)

An author also organizes each paragraph's main idea and supporting details in support of the central idea, and each paragraph supports the paragraph preceding it. The bulk of an expository paragraph is made up of supporting sentences (major and minor details), which help to explain or prove the main idea. These sentences present facts, reasons, examples, definitions, comparison, contrasts, and other pertinent details. They are most

important because they sell the main idea. Using the GIST strategy, ask students to summarize the main ideas of each individual paragraph of a text, in their own words in 20 words or less. Allow students to work in pairs, if desired, discussing how best to summarize the information in a short 20-word-or-less statement. Use the GIST template to chart out the entire textbook section or multi-paragraph primary source.

Teaching students structured approaches to note-taking of vital information from primary or secondary sources is an excellent tool for both learning the content, as well as summarizing central ideas necessary for complex reading comprehension. The Cornell (two-column) note-taking strategy is the most well-researched and commonly-used strategy in secondary and college classrooms. It can be adapted and used effectively for students of all ages.

To support an active level in reading and summarizing text involving the pairing of good readers with struggling readers, use the highly-structured “Six Step Paired Reading and Note-Taking” strategy which encourages students to interact with text as they offer brief summarizations of “chunked” textual passages in a very non-threatening environment.

The “Central Idea Concept Map” is a visual strategy effective for graphically organizing the relationships of key details to central ideas. Use the graphic organizer to demonstrate how short, summary statements can be developed over the course of a textual reading. Use the graphic organizer to trace/discuss the development of an author’s idea throughout the entire textual passage.

PEAK - Brenda Chapman

Common Myths About Gifted Students

Gifted students are a homogeneous group, all high achievers.

Gifted students do not need help. If they are really gifted, they can manage on their own.

Gifted students have fewer problems than others because their intelligence and abilities somehow exempt them from the hassles of daily life.

The future of a gifted student is assured: a world of opportunities lies before the student.

Gifted students are self-directed; they know where they are heading.

The social and emotional development of the gifted student is at the same level as his or her intellectual development.

Gifted students are nerds and social isolates.

The primary value of the gifted student lies in his or her brain power.

The gifted student’s family always prizes his or her abilities.

Gifted students need to serve as examples to others, and they should always assume extra responsibility.

Gifted students make everyone else smarter.

Gifted students can accomplish anything they put their minds to. All they have to do is apply themselves.

Gifted students are naturally creative and do not need encouragement.

Gifted children are easy to raise and a welcome addition to any classroom.

TRUTHS About Gifted Students

Gifted students are often perfectionists and idealistic. They may equate achievement and grades with self-esteem and self-worth, which sometimes leads to fear of failure and interferes with achievement.

Gifted students may experience heightened sensitivity to their own expectations and those of others, resulting in guilt over achievements or grades perceived to be low.

Gifted students are asynchronous. Their chronological age, social, physical, emotional, and intellectual development may all be at different levels. For example, a 5-year-old may be able to read and comprehend a third-grade book but may not be able to write legibly.

Some gifted children are “mappers” (sequential learners), while others are “leapers” (spatial learners). Leapers may not know how they got a “right answer.” Mappers may get lost in the steps leading to the right answer.

Gifted students may be so far ahead of their chronological age mates that they know more than half the curriculum before the school year begins! Their boredom can result in low achievement and grades.

Gifted children are problem solvers. They benefit from

working on open-ended, interdisciplinary problems; for example, how to solve a shortage of community resources. Gifted students often refuse to work for grades alone.

Gifted students often think abstractly and with such complexity that they may need help with concrete study- and test-taking skills. They may not be able to select one answer in a multiple choice question because they see how all the answers might be correct.

Gifted students who do well in school may define success as getting an “A” and failure as any grade less than an “A.” By early adolescence they may be unwilling to try anything where they are not certain of guaranteed success.

Adapted from College Planning for Gifted Students, 2nd edition,

Elementary Language Arts -Kristi Kretchmar

Get the Gist Comprehension Strategy for Summarizing

Good readers use comprehension strategies before, during, and after reading. During reading the reader monitors understanding and corrects comprehension difficulties. Get the Gist is a comprehension strategy that helps students identify the main idea, or gist, of a paragraph during reading.

The strategy uses scaffolding to help students determine what is really important in a paragraph or section of a text. The students’ job is to try to form a main idea statement in 10 words or less. Get the Gist can be taught as a whole class or small group lesson using student partners.

Lesson Steps:

Assign students partners. Select material that is at the independent level for the more advanced partner and at the instructional level for the second partner. Each student should have a copy of the reading selection. It can be narrative or expository text from a basal reader, content area textbook, trade book or novel.

To introduce and teach the Get the Gist strategy, first explain that Get the Gist means identifying the main idea of a paragraph or section of a selection. A main idea is made up of 2 parts: the most important who or what the paragraph is about (the main person, place, or thing) and the most important information about the who or what. The following steps of the strategy should be then modeled using the steps of I do, We do, You do.

Read the selection, one paragraph or section at a time.

Identify and name the who or what the paragraph is mostly about. No matter how many words describe the who or what, it counts as one word.

Next, tell the most important thing about the who or what. Try to get this information in nine words or less.

Finally, these two pieces of information are put together to state the main idea in ten words or less. When practicing the strategy with a partner, the students take turns creating the gist statement for alternating paragraphs.

The 10-word “gist” summary sentences for each paragraph are then combined to create a summary of the selection.

Science-Bob Melton



Strong Support, Low Awareness: Public Perception of the Common Core State Standards

In just a few short years, the education landscape has changed dramatically due to a sweeping set of policy changes and reform initiatives, perhaps none more transformative than the Common Core State Standards (CCSS). Since their release in June 2010, 45 states and Washington, D.C. have chosen to adopt these common, K-12 English Language Arts/Literacy and Mathematics standards to provide all students with the academic foundation they need for success in college, careers and life.

Despite the number of states that have voluntarily adopted the new standards—set to be implemented by 2014-15—the question remains: what does the public think about the Common Core State Standards? Or, perhaps the harder question: will the public support the Common Core as states move forward on their implementation plans, including, for many, the likely adoption of assessments aligned to the Common Core?

Achieve’s recently-commissioned national poll of voters and K-12 educators—Strong Support, Low Awareness: Public Perception of the Common Core State Standards—sought to answer these questions and found that while both the public and educators strongly support the notion of all states having common standards, there is low awareness, especially among the general voting public, of the Common Core State Standards.

Major findings from the nation-wide survey include:

Generally, public education is considered to be a very or extremely important issue to voters across the board. However, only about one in ten voters—and educators—believe public education is working pretty well right now

use test results to hold districts and school accountable, but only 39% believe this data should be used for teacher accountability.

Have Heard about Common Core State Standards (CCSS)? (Voters)	Voters	Teachers
Nothing	60%	13%
Not Much	21%	17%
Some	13%	22%
A Lot	6%	46%

The Common Core State Standards are in the early stages of implementation and awareness among the general public is very low; only 19% of voters have seen, read and/or heard anything about the Common Core. Awareness among teachers is significantly higher, likely because of states’ and districts targeted outreach and professional development initiatives.

Among the few voters who are aware of the Common Core State Standards, there is a mixed impression of the CCSS, with essentially the same percentage having a favorable and unfavorable view. Among teachers who are aware of the Common Core, there is generally a more favorable view. When more details on the CCSS are given, support rises significantly.

Strong Support, Low Awareness:

Public Perception of the Common Core State Standards demonstrates how critical it is for state and district leaders and advocates to redouble their communications efforts to increase awareness and understanding of the Common Core State Standards, common assessments and related policies—and prepare the public for what the education landscape will look like over the next few years. For tips, download “Common Core State Standards Communications & Outreach.”

To view the survey results (either in PowerPoint or report form) see, <http://www.achieve.org/publicperceptioncss>

It is better for all states to have the <u>SAME STANDARDS/TESTS</u> at each grade level in math and English so students across the country have to meet the same expectations. ...Or... It is better for all states to have their <u>OWN STANDARDS/TESTS</u> at each grade level in math and English so each state can be sure that the standards/tests reflect their own priorities.	All	Dem	Ind.	Rep
Common Standards	66%	70%	69%	56%
Own Standards	31%	29%	27%	43%
Common Assessments	63%	71%	58%	65%
Own Assessments	33%	27%	39%	30%

There is strong support for common assessments among voters, but also disagreement as to how the results of the assessments should be used. The general public strongly supports using the results for a full range of accountability purposes, while teachers are more skeptical of using test results for such purposes. For example, at least three-quarters of voters said it was acceptable to use test data for holding districts, schools or teachers accountable. Among teachers, a slim majority (51%) believe it is acceptable to

Scaffolding Subject Areas to Strengthen Education (from 11/4/2011 - NSTA Reports) - by N. Eric Heiselt

While attending a recent conference on science, technology, engineering, and mathematics (STEM) education, I overheard and participated in

numerous conversations about the role of each discipline in reinforcing the ideas and ideals of the overall initiative. Views varied, but one of the most striking ideas was that without an intertwining of effort, science, technology, engineering, and math were weaker “siloes” than when scaffolded together. Regardless of our personal areas of influence and content knowledge, all of the participants in these conversations agreed that intertwining was the key to student success in understanding. If all of these

experts agree, why is implementation of this idea still in the early stages, and when will we see nationwide practice for every student? This is a large concept, and I do not pretend to have any magic answer, but rather seek to encourage the science education community to begin our discussion based in the reality of the individual classroom.

The release of A Framework for K–12 Science Education, which will guide the creation of the Next Generation Science Standards, has created a buzz beyond the science classroom, as it now recommends the inclusion of areas of engineering content as a tool for practice and instruction. Unlike the recently adopted Common Core standards for mathematics and English language literacy, the framework has not been presented as a rigid list of expectations of learning. Instead, the primary goal is to create a scientifically literate society. The actual standards development lies with the state-level leadership. Although the framework and the Common Core goals are distinctly different in their conceptual plan and implementation strategy, the question remains: How can these be implemented concurrently and further the overarching goal for our students to understand content and develop into complex problem solvers?

Just as STEM seeks to be intertwined for greater effect, the science classroom is an obvious conduit for the creation of a deeper understanding supported by the varied areas of science as well as English language literacy, mathematics, technology use, and engineering. This makes sense for any educator who has ever been asked, “Why do we have to learn this?” or “Graphing? But this is not math!” or has heard the seemingly endless litany of complaints regarding expectations to write and document one’s experimental design. As science educators, we require our students to provide evidence of learning through written lab reports, science fair projects, data graphs, and the design and construction of innovative tools and processes (otherwise known as engineering). Since we are already doing this, can we lead our schools and society toward the goal of intertwining for learning?

Finding Common Ground

In examining the **Common Core for English Language Arts and Literacy**, I find a large number of specific standards are already supported in the best practices of science classrooms. The ability to “delineate and evaluate the argument and specific claims in a text, including the validity of the reasoning as well and the relevance and sufficiency of the evidence” is listed as an anchor standard for reading. We ask our students to hone this skill in the science classroom as we regularly present the findings of theorists and scientists. As we present evidence and diverse experiments and results to our classes, we encourage them to ask questions and then determine the validity of the findings of their peers and

other investigators. Another anchor standard in reading asks the students to question how multiple texts compare in findings and approaches. Within the writing anchor standards, we find the ability to create a reasoned argument based on evidence and the documentation of a student-designed research project. Again, these activities are well established in the science classroom. During my tenure in middle school and high school classrooms, I was always excited when my students were able to conduct research and document their learning with the assistance of teachers from multiple content areas. Using skills from all the silos makes for more effective learning.

The **Mathematics Common Core Standards** tout primary goals of problem solving with perseverance, reasoning and constructing viable arguments, using models and tools, and seeking to achieve precision. I am sure these resonate with science educators and are common goals in every science classroom as well. As science content specialists, we encourage our students to seek solutions and generate the reasons for their planned experimentation based on current evidence and informed conjecture. The skills developed within the theoretical mathematics setting are honed within practical application in the science classroom.

Science educators as a profession have an opportunity to become leaders for positive change as we peer over the precipice of transformation as these multiple content structures open before us. As we now seek to intertwine our practice and content more strongly than ever with the other STEM fields as well as other subject areas, we can demolish the content-area silos to create a more effective body of knowledge of pedagogy to help our students develop a deeper understanding of their world. Our goal should be to decrease the separations between the life sciences and physical sciences as we embrace all fields of scientific thought, as we concurrently strive to provide opportunities for skill development and reasoning ability for all learners. It is no secret to our profession that the whole child must be given access to whole knowledge.

N. Eric Heiselt is director of K–12 outreach for the Bagley College of Engineering at Mississippi State University and serves on the board of directors for BEST Robotics. He taught Earth science and biology at both the middle and high school levels for 11 years.



“Dramatize” Middle School

Implementation of the “Dramatize” Middle School Grant has been successfully under way at Hefner, Western Oaks, and Cooper Middle Schools. The targeted students are within the 7th Grade Drama Classes at each site. “Dramatize” integrates both Social Studies and Language Arts working in also other Fine Arts disciplines.

The mission of the project has been to produce multi-arts discipline efforts especially concentrating on Drama that model learning strategies within the basic classroom using Reader’s Theatre and Improvisational methods of delivery.

Artists, Tyler Crain, Al Bostick and Rhonda Clark, will complete their residencies at the end of this quarter and then all but Ms. Clark will continue onto Mayfield and Capps Middle Schools second semester to complete the year.

“Dramatize” Middle School has been provided through a major grant from the Oklahoma State Arts Council.



OKLAHOMA
ARTS
COUNCIL



Al Bostick

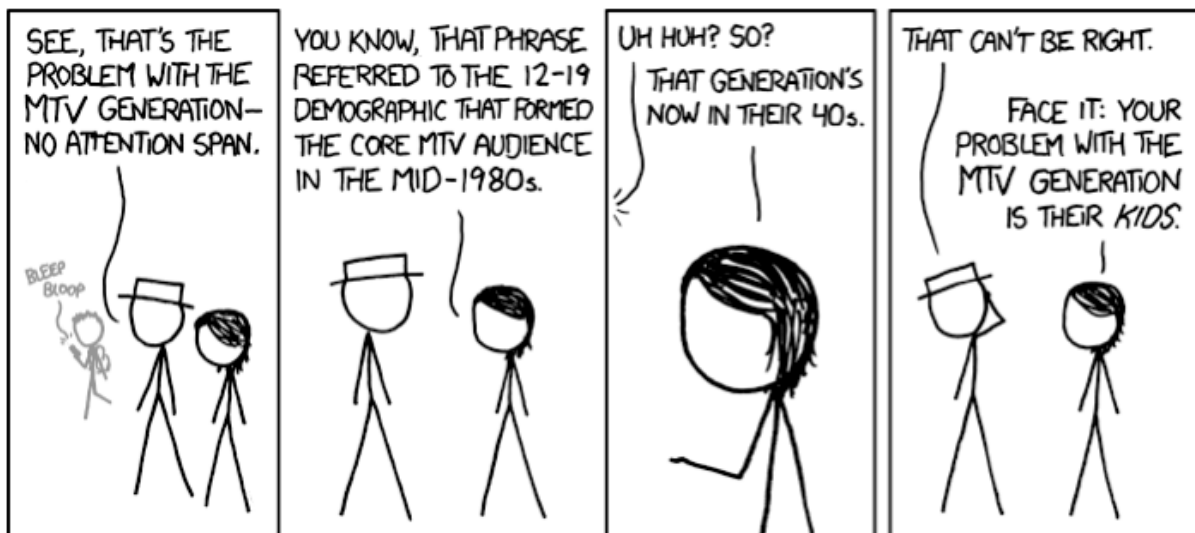


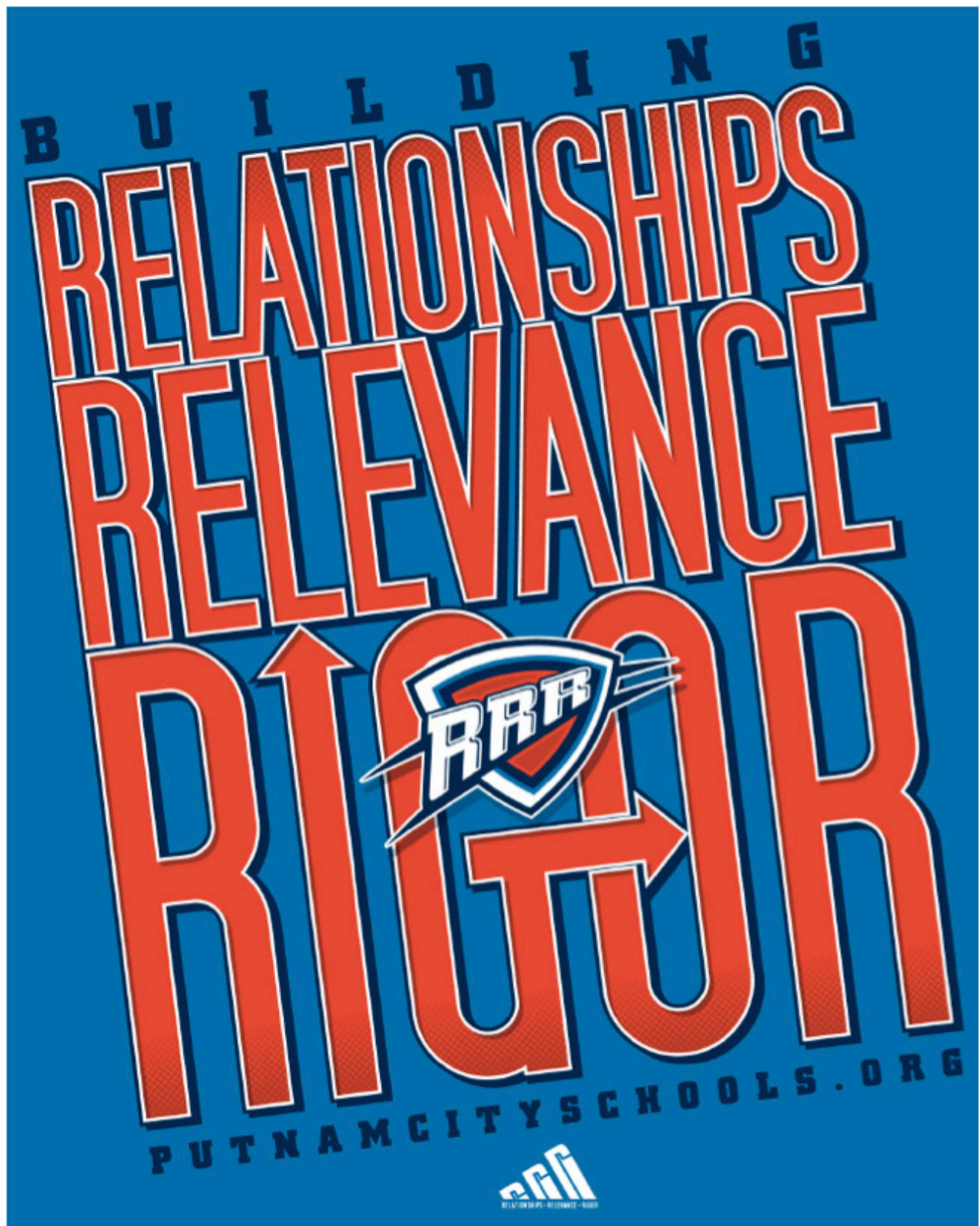
Tyler Crain with student accomplices



Connie Williams (with tophat)
WOMS drama teacher
participated in Rhonda Clarks
sessions

MTV by XKCD.com





This month the newly formed district CCSS Advisory Council begins its work. Made up of teacher-leaders representing each school, the focus of this Advisory Council is to assist in the development of action plans, help lead site professional development activities, and offer insight and/or feedback along the journey of CCSS implementation. The committee will also serve as liaison for communication and information sharing across the district and also assist site leadership teams in navigating the CCSS transition activities at each school.

Curriculum reView is produced by the Putnam City Schools Office of Curriculum, Instruction and Assessment. Questions and comments should be directed to Dr. Joe Pierce, Executive Director of Curriculum, Instruction and Assessment or to the specific subject matter curriculum specialists or coordinators where applicable.