

## Ten Simple Strategies For Teaching Critical Era 3 Skills

By  
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I believe that five skill sets are critical for living in a 21<sup>st</sup> century world<sup>1</sup>. These five sets of skills provide students with basic competencies they need for success in college, career, and beyond:

**Curiosity.** In today's rapidly changing world, curiosity – interest in and willingness to learn new things – is critically important. Most educators realize that the curiosity of young children seems to lessen as they go through school. Curiosity manifests itself through students demonstrating an interest in and a willingness to try new things and learn new ideas, ask questions, and pose and define problems and challenges.

**Information Literacy.** New technologies that give us instantaneous access to huge amounts of information and data make information and data literacy skills imperative. Our students need to be able to use many approaches, including technology, to search for information and data effectively and efficiently, sort through large amounts to find the most useful, and determine the most reliable and valid information and data. Search engine results require the ability to read and digest multiple information and data genres and formats.

**Thoughtfulness.** All students need to have the ability to think deeply and flexibly in today's rapidly changing world, and be prepared to take their place as 21<sup>st</sup> century citizens. They need opportunities to compare and contrast, analyze and interpret, and develop unique relationships among information, data, and ideas. They need to be able to translate information into visual and quantitative data. They need to “think outside the box” and solve problems creatively.

**Application.** With so much information, the ability to “pull together” and synthesize information and ideas, form educated opinions backed by argument and evidence, solve complex problems, and determine ways to

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apply information and ideas to the “outside” world become critical. Summarizing, synthesizing, drawing conclusions, and applying learning to new, novel, and “authentic” situations are all critical for living in a 21<sup>st</sup> century world.

**Communication.** Effective communication becomes more important in a world of e-mail, twitter, Facebook, cellphones, Skype, and authentic projects. Students need opportunities to practice communicating effectively in many different ways – through all types of writing, explaining ideas, diverse representations, effectively participating in discussions, and giving oral presentations.

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Unfortunately, in today’s educational climate, many of these critically important skills take a back seat to a relatively narrow group of skills useful for doing well on standardized tests – namely, the ability to distinguish correct answers in multiple choice questions or to write short pieces coherently.

However, educators interested in emphasizing the development of these skills may be surprised to learn that there are some relatively simple and easy to implement instructional strategies that enhance the development of these skills. Below are ten simple strategies – two for each skill set – that can make a big difference in the ability of students to learn and apply these skills.

**Curiosity –**

***Question Census.*** Ask students to brainstorm questions that they would like to explore for at least one unit of study. Together develop categories for the questions and then select questions or categories of questions that are the most challenging, interesting, or focused around big ideas. Use these questions to focus student learning and study the unit at hand.

***Student developed challenges-problems.*** Find someplace in the curriculum where students can develop their own challenges or problems to give to others. Give students a chance to develop puzzles, games, historic or current challenges, math problems, or other challenges and problems, and then have them share these with the rest of the class and see if other students can solve the problems or challenges.

## **Information Literacy –**

**Readings-Data search.** Either as a homework or in-class assignment in a computer lab, ask students to find one or more readings or data sources that supplement current learning. Help students learn how to use search engines and find and use helpful search terms. Work with students to help them determine which sources of information and data are reliable, then how to read and interpret these meaningfully. If several readings or data sources are found, help students figure out ways to compare and contrast them and find the essential information, ideas, or data in each.

**Close reading.** The Common Core Reading Standards advocate that students do more of the work of reading and teachers do less. “Close reading” means that students read more deeply as part of their daily activities. Instead of providing answers and “feeding” students, students are asked “text-dependent” questions. Text dependent questions forces students to go to the text to give opinions and justify them through the text. Students are asked to “read like a detective”; to read text more than once; to analyze paragraphs sentence by sentence, to consider the nuances of a text, to analyze data sources. “Text” reading becomes much more significant as part of the learning process<sup>2</sup>.

This type of reading should be encouraged, but takes time. If we are to foster information and data literacy, students, as often as possible, should be asked to do close reading.

## **Thoughtfulness -**

**Graphic organizers.** Graphic organizers are a good way to promote deeper and more flexible thinking. Through a visual analysis, they help students take learning apart (analysis), organize information and data for decision-making, or weave a web of information and ideas. Use graphic organizers to help students extend and deepen student thinking<sup>3</sup>.

**Brainstorming** A brainstorming strategy is a good way to help students learn to “think outside the box”. Students are provided with an open-ended problem or challenge that has the potential to have many different types of solutions. They are asked to discover as many alternative ways to solve the problem as they can, and are given four rules around the acronym DOVE to help them with coming up with alternative possibilities: Defer Judgment, Offbeat Ideas encouraged, Vast number of ideas sought, Expand on other people’s ideas. Ask students to work in small groups to come up with as

many ideas as they can, with one person acting as the recorder of all the ideas.

After the brainstorm, students share the ideas and make the list as long as possible. They may also be asked to indicate which five ideas are the most logical, the most unusual, the most interesting, and/or the best. Several ideas might be used to try to solve the problem and consider what would happen if the idea were put into practice.

### **Application -**

**3-2-1 Reflection.** A 3-2-1 Reflection activity is often given at the end of a lesson or specific time period, such as a week, two weeks, or at the end of a unit. You can use this activity to ask students many different questions to discover what they learned and to uncover their thoughts about other aspects of the class: for example, to determine what main ideas students have learned, what questions they still have (good for stimulating curiosity), and what they most enjoyed.

In this case, the activity works like this: Ask students to write down 3 things (ideas, facts, principles) that they learned, 2 conclusions that they can draw from the learning, and one way they can apply their learning to the outside world<sup>4</sup>.

**No multiple-choice question test.** For at least one time period, abandon the traditional multiple-choice short answer test for a test that requires students to draw conclusions about what they have learned and asks them to apply their learning to a new and novel situation. Performance tasks are good alternatives, as are exams that require essays. Consider open book essay exams and exams where students take home three questions to prepare, and one of them is given as an in-class exam<sup>5</sup>.

### **Communication -**

**Five-minute explanations.** For this activity, students are asked to explain a concept, big idea, understanding, or principle in their own words. They may do it in pairs, giving explanations to each other, or as a writing assignment. This activity may be completed after all or part of a lecture, when a teacher has shared a new understanding and wants to determine if students understand what has been presented.

A corollary to this activity is that students use an active listening approach – as they work in pairs, one student provides an explanation and the other has

to repeat the essence of the explanation in his or her own words. They then switch, and the other student provides an explanation while the first repeats the essence of it in his or her own words.

***Persuasive arguments.*** In this activity, students are asked to create a persuasive argument in support of a point of view – an opinion about something they are studying. They need to state or write their point of view and provide arguments and evidence that support it. Once they state or write their argument, they can share it with others, either in small groups or in the total class. Persuasive essays are also good ways to introduce debate skills.

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There are many activities that can be used or adapted to promote the learning of these five skill sets – developing questions for conducting interviews or for going on field trips, wait time to encourage deeper thinking, research projects based on student interests and related to a topic under study, oral presentations, creative problem solving strategies, individual book reflections, on-going, multiple types of writing activities, thinking skill activities, and choice of activities and courses. But the point of this commentary is that teachers who have limited time for developing some or all of these five sets of skills can do short, relatively easy to implement activities, even occasionally, that can make a big difference in Era 3, 21<sup>st</sup> century skill development. These types of activities, represented by the ten examples above, can be especially significant if everyone in the school supports the development of these sets of skills and institutes instructional activities designed to help students learn and refine these skills.

If you are convinced that these skills are important for students to develop, chances are you will think of other activities that you can implement or adapt to promote the learning of these skills. Once you accept the importance of these skills and start thinking about how you can help students develop them, the sky's the limit. Ironically, teaching these skills will probably help students also to perform better on the more traditional tests that are currently so important for measuring classroom and school success.

## ENDNOTES

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<sup>1</sup> See Elliott Seif, *Teaching the Right skills for a New Age: Inquiry Based Instruction*, at ASCD Edge, <http://edge.ascd.org/Teaching-the-Right-Skills-For-a-New-Age-Inquiry-Based-Instruction/blog/5476234/127586.htm>. Other relevant commentaries on ASCD Edge include *Seven Principles for Teaching the Right Skills in a New Age* and *Eight Types of Instructional Strategies That Improve Learning in a 21<sup>st</sup> Century World*. More information about the five skill sets and their relevance for 21<sup>st</sup> century education can be found at [www.era3learning.org/](http://www.era3learning.org/).

<sup>2</sup> For further insight into text-dependent, close reading based on the Common Core Standards, see Christina Hank, *Defining “Deep Reading” and “text-Dependent Questions”*, at Turn On Your Brain, <http://turnonyourbrain.wordpress.com/2012/03/29/defining-deep-reading-and-text-dependent-questions/>

<sup>3</sup> There are many sources of information on graphic organizers. One resource is by Vicki Urquhart and Dana Frazee, *Teaching Reading in the Content Areas: If Not Me, Then Who? 3rd Edition* (2012), Chapter 12. Alexandria, VA: Association for Supervision and Curriculum Development.

<sup>4</sup> Many resources are available to help you develop 3-2-1 reflections. One can be found at <http://www.facing.org/resources/strategies/3-2-1>.

<sup>5</sup> As a student, the use of take home questions was my favorite way of being assessed, because I could really take the time to prepare and learn. It changed the nature of assessment from “mystery” to “mastery”.

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