Research Brief

Test-Taking Strategies

Question: What are strategies to help students be successful on standardized tests?

In a Nutshell

Much has been written about student preparation for standardized tests such as: get enough sleep, do not eat sugary food or drinks, eat a well-balanced meal, wear comfortable clothing, bring appropriate supplies-especially extra #2 pencils, answer every question, write neatly and legibly, deduce wrong answers immediately and use all of the time given. For additional information see Research Briefs on Optimal Testing Environments - http://www.principalspartnership.com/TestingEnvironments.pdf and Improving Test Scores - http://www.principalspartnership.com/imptestscores.pdf. Today's high school students, the Millennials or Generation Y, process information differently than previous generations. Although you must consider the testing environment and ways to support students prior to the test, there are other considerations that will help them experience success on standardized tests.

Summary of Findings:

High stakes standardized tests are a part of every student's academic life. The results are used to assess student learning, measure teacher accountability and impact the community's support for schools. Such tests place a heavy emphasis on reading, writing, math and science. Because of this, there is often more emphasis placed on these subjects than on others, such as social studies, art and music.

There is a lot of research on strategies to help students successfully prepare for taking tests. See other Research Briefs:
>   Improving Test Scores - http://www.principalspartnership.com/imptestscores.pdf
>   Optimal Testing Environments - http://www.principalspartnership.com/TestingEnvironments.pdf

Reading and Today's High School Student

Current high school students, often described as Generation Y or the Millennials (1980-2002), are the first generation born with immediate and early access to digital technology (Coats, 2007; Price). When people read web content they use an F-shaped pattern. They first read horizontally, then move down the page and read another horizontal line. Finally they scan the left side of content. This allows people to scan content quickly but in the process readers may miss important content. Because of their use of technology students have become accustomed to not reading text thoroughly and to get the most important information in the first two paragraphs. Exhaustive reading is rare. Most often this generation's initial reading experiences were on computer screens and online web sites.

The dilemma is that while students were taught to read in a "Z-pattern" in elementary school, their frequent exposure to web sites, means that they tend to read more in an "F-pattern," than the standard "Z-pattern" (Abagond, 2010; Nielsen, 2006). In hundreds of eye scans it was observed that when one is reading a web site the user does not read the text thoroughly; that the first two paragraphs are most important; and that the first two words in a sentence need to get the point across, because often the third word is not read (Nielsen, 2006).

Reading in a "Z-pattern" is not optimal for success on standardized tests that expect students to use a traditional "Z-pattern." The implications for student success are significant. School personnel must work with students to re-teach and re-learn "Z-patterns" that will match the design of most standardized tests.

Characteristics of Generation Y/Millennials

This generation shares several characteristics that must be taken into account if they are to do their best and be successful on standardized tests. They . . .

- feel a great deal of pressure to succeed.
- are multitaskers, especially when it comes to technology.
- want all information up front and need to know how they will be evaluated.
- become bored quickly in environments that are not active and interactive.
- like to work with others and share their ideas.
- are usually over scheduled so they need structure.
- relate best to information that is relevant and experiential.
- learn better when an activity is fun (Coats, 2007; Price).

Strategies for preparing students to take standardized tests

The Millennials are the first generation where a heavy emphasis has been placed on utilizing technology in as many aspects of their school and personal lives. One result is that handwriting has become a lost art, yet most standardized tests require students to use paper and pencil for completion. This differs from the way Millenials think, process and create information. Under the best of circumstances, standardized tests create a high level of stress, which in turn, can negatively impact many test takes. Students who are ill equipped to deal with the paper-pencil format of standardized tests, may experience significant test anxiety (Andrew, 2009, Test anxiety and physical reactions to tests; Duke & Ritchhart; Lorcher; Price; Teacher Created Tips). Therefore, providing students an opportunity to become comfortable with a traditional testing format and process is useful.

Students are most successful when they receive explicit instruction in the skills needed for success. Instruction is most effective when it is integrated into the regular academic program, rather than part of a single test-preparation event. These skills should also be intentionally taught, labeled and repeatedly used (Duke & Ritchhart; Lorcher; Price). Some skills to assist in improving test-taking skills include the following.

General Test-Taking Strategies

- call attention intentionally to reading in a "Z-pattern." Analyze and discuss concepts on all areas of the page.
- integrate deliberately paper-pencil activities and assignments into the curriculum.
- give timed, paper-pencil exams. Analyze and discuss them.
- assign purposeful reading, regardless of the content being taught.
- teach students how to read questions on an exam (i.e. reading questions before reading the text; while reading, keep the questions in mind; underlining words or phrases that go with correct responses).
- utilize practice tests and having students use different colored pens to identify the different types of questions (http://www.ct4me.net/standardized_test_preparation.htm#Test%20Prep%20in%20Your%20State; http://www.edinformatics.com/testing/).
- employ bubble sheets on some of the activities and assessment. Discuss how to read the question and appropriately put the response in the correct place.
- have students develop practice tests for each other.
- practice reading and following directions.

Strategies to Improve Success on Reading Tests

- instruct students on the different types of questions they will come across (i.e. "Right There," the answer is right in the passage; "Think and Search," the answer requires using memory and referring to several places in the passage; "Author and You," these are not directly in the passage, this response requires using one's prior knowledge plus information from the passage) (Duke & Ritchhart).

- examine how texts are structured by having students read passages and made educated guesses about the location of particular information (i.e. when and where are often at the beginning, the problem is usually in the middle, and resolution is at the end).

Strategies to Improve Success on Mathematics Tests
- use words problems throughout the curriculum, not just as a unit of study.
- have students examine the concept and designing word problems around it.
- have students examine, evaluate and rewrite old tests
  (http://www.ct4me.net/standardized_test_preparation.htm#Test%20Prep%20in%20Your%20State;
  http://www.edinformatics.com/testing/).
- provide opportunities for students to quickly estimate answers.
- have students orally share their math solving strategies.
  (Andrews, Preparing students to read standardized exams; CollegeBoard; Duke & Ritchhart; Lorcher; Price; Standardized test preparation and tips for success)

Keying into the needs of the students, providing intentional instruction in test taking strategies as well as logically incorporating "test" vocabulary and formats, should help them become more successful standardized test takers.

Summary
There are many different ways to help students prepare for standardized tests. In addition to content knowledge it is essential that students have an understand of test taking procedures so that they gain comfort in the process and can experience greater success.

Online Resources:

- Abagond. (2010, Nov. 20). The F-pattern. Retrieved online http://abagond.wordpress.com/2010/11/20/the-f-pattern/
  A concise article about the F-pattern in reading web pages.

- Andrew, T. (2009). Preparing students to read standardized exams. Retrieved online http://www.suite101.com/content/preparing-students-to-read-standardized-exams-a103602
  This is a succinct piece about some basic skills for standardized tests that can be implemented and integrated in the classroom.

- Andrew, T. (2009). Test anxiety and physical reactions to tests. Retrieved online http://www.suite101.com/content/physical-reactions-to-tests-a103605
  Several suggestions to assist students in gaining test success and experiencing less stress are provided in this article.

- Coates, J. (2007). Generation Y-The Millennial generation. Retrieved online http://honolulu.hawaii.edu/intranet/committees/FacDevCom/guidebk/teachtip/GenY.htm
  This piece provides a strong outline of the characteristics of the Millennials and what they need in order to have success in learning.

- CollegeBoard. (n.d.) Exam day: Survival tips. Retrieved online http://www.collegeboard.com/student/plan/boost-your-skills/10296.html
  A brief list of suggested strategies for students to follow before and during the exam are provided on this site.

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- Cuesta College. (n.d.). Identifying topics, main ideas and supporting details. Retrieved online
  http://academic.cuesta.edu/acasupp/as/308.HTM
  A concise definition of topics, main ideas and supporting details, what they mean and how to gain meaning from them are provided in this piece.

- Cuesta College. (n.d.). Making inferences and drawing conclusions. Retrieved online
  http://academic.cuesta.edu/acasupp/as/309.HTM
  A section in a series from Cuesta College about reading and study skills. This site deals with how one can make inferences and the importance of drawing the correct conclusions.

- Cuesta College. (n.d.) Organization patterns. Retrieved online http://academic.cuesta.edu/acasupp/as/307.HTM
  How paragraphs are organized along with important key words and phrases are described in this piece.

- Duke, N. K. and Ritchhart, R. (n.d.). No pain, high gain. Retrieved online
  http://www2.scholastic.com/browse/article.jsp?id=4006
  A thorough description of specific standardized test taking strategies for working with students is provided in this article.

- EDinformatics. (n.d.). K-12 math preparation. Math-Reading-Science. Retrieved online
  http://www.edinformatics.com/testing/
  This site has sample tests in math, reading and science from Texas, New York, Massachusetts, Florida and Virginia, in addition to international math and science tests.

- Lorcher, T. (n.d.). Test taking skills for standardized tests. Retrieved online
  http://www.brighthub.com/education/k-12/articles/3415.aspx
  This brief article describes specific test taking strategies for standardized tests.

- Nielsen, J. (2006). F-shaped pattern for reading web content. Retrieved online
  http://www.useit.com/alertbox/reading_pattern.html
  This article is by the principle researcher on the F-pattern in reading web content. It briefly describes how eye scan research indicates that most people read the web in an F-pattern.

- Price, C. (n.d.). Why don't my students think I'm groovy? The new "R's" for engaging Millennial learners.
  Retrieved online http://www.drtomlifvendahl.com/Millennial%20Characturistics.pdf
  Although this article is written describing the current college student, it provides apt descriptions and recommendations for the high school learner as well.

- Standardized test preparation and tips for success. (n.d.). Retrieved online
  http://www.ct4me.net/standardized_test_preparation.htm#Test%20Prep%20in%20Your%20State
  This site offers sample tests that can be downloaded from most of the states in the U.S. and offers a few test taking strategies.

- Teacher Created Tips. (n.d.). Standardized test-taking tips & strategies. (n.d.). Retrieved online
  http://www.teachercreated.com/blog/tag/standardized-test-taking/
  This site offers some succinct test taking strategies.

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http://www.principalspartnership.com/

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