

The background of the page is a grayscale image of a test paper. It features several rows of bubbles for multiple-choice answers, labeled with letters A, B, C, D, and E. A pencil is shown pointing at one of the bubbles. The overall tone is educational and focused on testing.

# Teaching students not to sweat the test

Teachers can change some of their practices to ensure that students don't feel extreme anxiety at exam time.

**By Spencer J. Salend**

Every student takes tests, whether they're in 1st grade or graduate school. Many of those students will experience some degree of test anxiety, which can negatively affect their grades, promotions, graduation, and post-secondary opportunities (Salend, 2011a). Even though educators are the ones responsible for testing students — and probably creating much of that anxiety — they can also be the ones who help alleviate student test anxiety if they are armed with information and knowledge about useful strategies.

During testing, students experiencing test anxiety encounter extreme levels of stress, nervousness, and apprehension that drastically hinders their ability to perform well and negatively affects their social-emotional and behavioral development and feelings about themselves and school (Cizek & Burg, 2006; Huberty, 2009). Students may have generalized anxiety disorders, but anxiousness over tests is different (Huberty, 2009). Students with generalized anxiety disorders are distinguished by a “trait anxiety,” which results in experiencing high levels of stress across a wide range of situations (Cassady, 2010; Cizek & Burg, 2006). Conversely, students experiencing test anxiety have a “state anxiety,” which results in high levels of nervousness specific to testing.

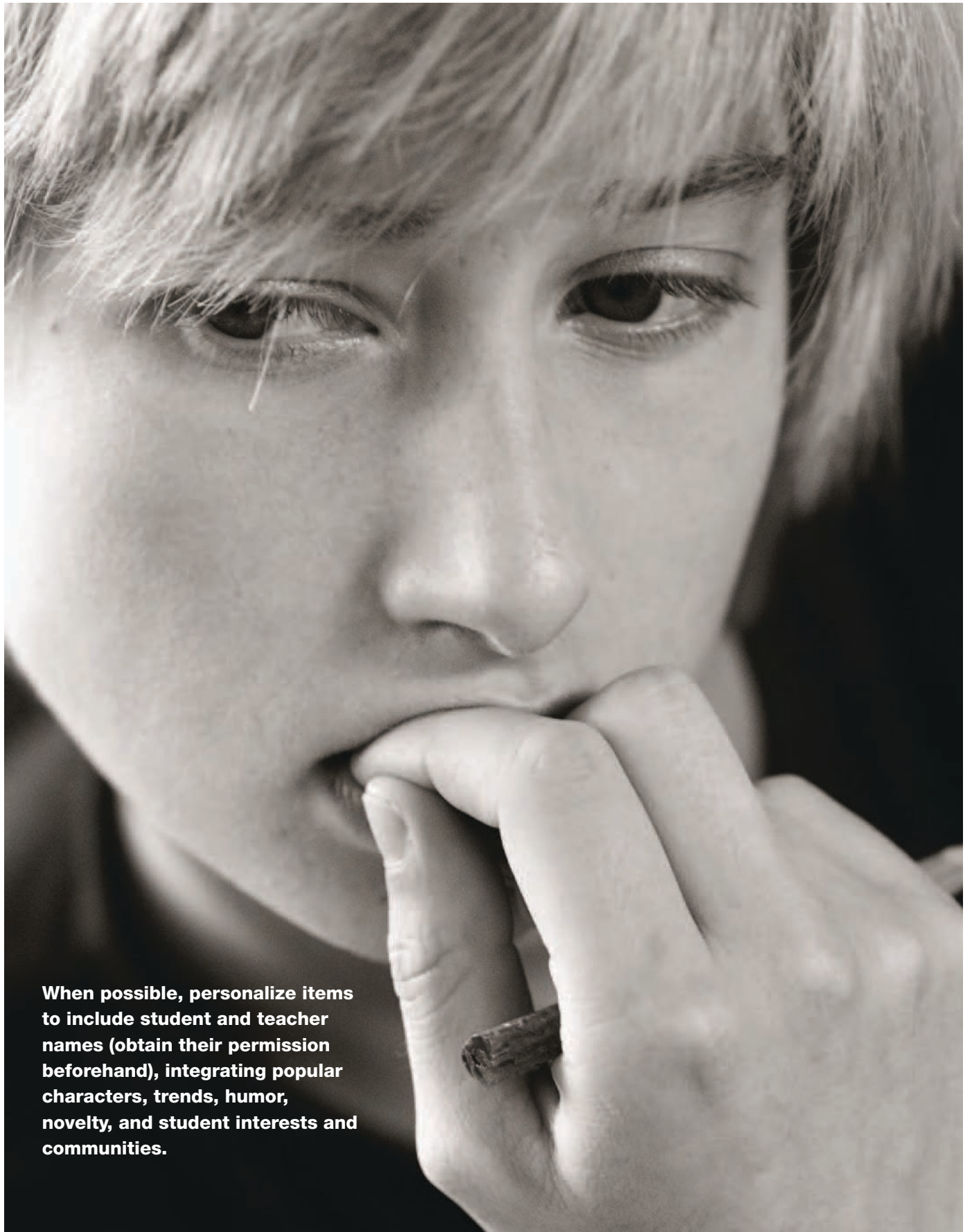
A variety of interrelated variables associated with individualized student characteristics, family and peer interactions, and school and classroom practices can lead to test anxiety (Salend, 2011a). These factors include:

- Anxiety, attention, or obsessive compulsive disorders;
- Perfectionist tendencies and unrealistic expectations;
- Negative self-esteem, self-statements, and criticism;
- Poor motivation, lack of confidence, and procrastination;
- Stereotype threat;
- Inadequate study and test-taking skills;
- Poor prior testing performance;
- Pressure from peers, family, and teachers;
- Unfavorable testing environments;
- Invalid, flawed, and timed tests; and
- Ineffective teaching (Cizek & Burg, 2006; Huberty, 2009; Osborne, Tillman, & Holland, 2010).

These factors often interact to create a cycle that results in heightened levels of test anxiety (Cassady, 2010). For example, a student may initially do badly on a test

**Students can learn to use anxiety reduction strategies before, during, and after testing.**

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**When possible, personalize items to include student and teacher names (obtain their permission beforehand), integrating popular characters, trends, humor, novelty, and student interests and communities.**

due to inadequate study habits or a poorly developed test, and then experience family pressures and negative self-statements, which collectively increase the probability that the student will experience high levels of anxiety that interfere with subsequent test performance.

Experiencing some anxiety related to testing is normal, and reasonable amounts of stress can even enhance test performance (Cizek & Burg, 2006). However, students experiencing detrimental levels of stress during testing usually exhibit a variety of physical, behavioral, and affective warning signs. (See Table 1.) Educators can assess whether students evidence the warning signs by observing them during testing and interviewing them and their families about their behavior and feelings while preparing and taking tests. Educators, students, and family members also can respond to questionnaires assessing the degree to which the warning signs of test anxiety are present (Cizek & Burg, 2006; Salend, 2011a).

Research suggests that between 25% to 40% of students experience test anxiety (Cassady, 2010; Huberty, 2009). Students with disabilities and stu-

dents in classes for the gifted and talented tend to experience high rates of test anxiety (Goetz, Preckel, Zeidner, & Schleyer, 2008; Whitaker Sena, Lowe, & Lee, 2007). Students from culturally and linguistically diverse backgrounds are prone to test anxiety because of social, cultural, and psychological stress and beliefs that some group members may feel when asked to complete an activity where their poor performance may reinforce negative stereotypes about them (Osborne, Tillman, & Holland, 2010).

### Helping students with test anxiety

Teachers can help relieve the anxiety experienced by students by employing a variety of interventions that have been proven useful (Salend, 2011a). Although the interventions described here may be especially helpful to students experiencing test anxiety, they are also good strategies for all students.

#### ► Use student-friendly tests

Poorly designed tests can hinder student performance and increase test anxiety. Educators can minimize test anxiety by using student-friendly tests that

**TABLE 1.**  
**Possible symptoms associated with test anxiety**

PHYSICAL SYMPTOMS	BEHAVIORAL SYMPTOMS	AFFECTIVE SYMPTOMS
Excessive perspiration	Difficulties with concentration, attention, and memory that interfere with:	Making negative self-statements
Sweaty palms	<ul style="list-style-type: none"> <li>• Reading and understanding test directions and items</li> <li>• Retrieving words, facts, and concepts</li> <li>• Organizing thoughts and answers</li> </ul>	Having pessimistic expectations (e.g., "I'm going to fail this test.")
Unexplained headache or stomachache		Being apathetic and unmotivated
Nausea	Performing poorly on tests when the content:	Negative comparisons of self to others (e.g., "I'm not as smart as others.")
Shaking body parts	<ul style="list-style-type: none"> <li>• Has been studied</li> <li>• Has been mastered previously as demonstrated via nontesting performance assessment activities</li> </ul>	Making excuses for poor test performance (e.g., "I don't do well on tests because I have test anxiety.")
Rapid heartbeat	Off-task behaviors such as inappropriate comments, fidgeting, squirming, pacing, staring, tapping, crying, and rapid speech during testing	Expressing avoidance and fear of testing situations
Dizziness and light-headedness	Asking numerous unnecessary questions about test	
Muscle tension	Experiencing repeated mental blocks and forgetting	
Tics	Feeling overwhelmed during testing	
Flushed skin color	Complaining about test items (e.g., "We didn't cover this in class.")	
Difficulty sleeping, eating, or using the toilet before tests	Seeking unnecessary assistance from others	
	Cheating on tests	
	Feigning illness and being absent on testing days	

**Source:** Salend, S.J. (2011, November/December). Addressing test anxiety. *Teaching Exceptional Children*, 44 (2), p. 61. © 2011 Council for Exceptional Children. Reprinted with permission.



are valid, accessible, and motivating and that employ best practices for creating test directions and items (Salend, 2009; Salend, 2011b).

### ► Promote validity

Tests that are not valid are unfair and stressful. Educators can promote the validity of their tests if they:

- **Determine the content of tests.** The content of tests should be directly linked to the curriculum and the most important topics, concepts, and skills taught.
- **Align test questions to instructional practices and terminology.** Test questions should be consistent with instructional practices used to promote student learning. Essay questions should address material taught via role playing, simulations, cooperative learning, and problem-solving strategies. Objective test items should relate to fact-based learning covered during teacher-directed activities. In addition, terminology in the test directions and in test items should be consistent with vocabulary that the teacher uses during instruction.
- **Weight test content.** The percentage, number, and point values of test questions addressing specific content should be weighted to be consistent with the amount of instructional time committed to teaching that content and the complexity of the material taught. As a case in point, if 15% of the instructional time was spent on teaching the Declaration of Independence, then a corresponding percentage of test questions or point values should be related to that material.
- **Schedule tests.** Promote validity and student performance by regularly scheduling tests that cover a reasonable amount of content, and coordinating tests with other teachers so students aren't taking too many tests in a short period of time.

### ► Enhance accessibility

Inaccessible tests are confusing, frustrating, and anxiety producing for students. Teachers can make tests more accessible by enhancing the test's format, readability, and legibility.

- **Format:** Ensure that tests have proper layouts, organization, spacing, and sequencing by: (a) presenting items in a predictable and numbered order that facilitates the transition from item to item; (b) having a reasonable number of

items on each page; (c) grouping similar types of questions; (d) surrounding test directions in text boxes; and (e) providing sufficient space to respond.

- **Readability:** Tailor the readability of tests by: (a) removing unnecessary words; (b) decreasing the length of sentences; (c) using vocabulary, tense, sentence structure, and voice that students understand; (e) avoiding pronouns, double negatives, abbreviations, acronyms, and parentheses (Salend, 2011b).
- **Legibility:** Enhance the legibility of tests by selecting readable and familiar fonts and type sizes; using all capital text and stylistic variants (e.g., italics, bold, underlining) sparingly to highlight brief amounts of text; presenting text in line lengths of 40 and 70 characters or seven to 12 words; avoiding right-justified text; and printing tests with black or blue ink and on off-white, pale, or matte pastel backgrounds.

## What is test anxiety?

Students experiencing test anxiety encounter extreme levels of stress, nervousness, and apprehension during testing that drastically hinders their ability to perform well and negatively affects their social-emotional and behavioral development and feelings about themselves and school.

### ► Foster motivation

Student-friendly tests should motivate students to stay focused and engaged. Educators can foster student motivation during testing by embedding prompts, relating test questions to students' lives, giving students' choices, and having students work collaboratively.

- **Embed prompts.** Place prompts in strategic locations that will help students stay focused, remain calm, and succeed on tests.
- **Relate questions to students' lives.** When possible, personalize items to include student and teacher names (obtain their permission beforehand), integrating popular characters, trends, humor, novelty, and student interests and communities. For instance, make true/false questions more relevant by presenting them in the context of students being fact checkers for a web site who must decide whether to "tweet"



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true statements or “delete” false statements.

- **Give choices.** Give students some choice in responding to items. For instance, teachers can present test items in a tic-tac-toe format and ask students to respond to a specified number of items or to answer three questions that give them tic-tac-toe (Edyburn, 2009).
- **Work in collaborative groups.** Reduce the stress of competition by having students collaborate on answering test items. Later, they may be assessed individually.

### Best practices for test directions

Tricky and poorly constructed test items and directions can undermine validity, accessibility, and motivation. Student-friendly tests have clear, concise, complete, and grammatically correct test directions and items.

#### ► Test directions

Good directions guide students in understanding what to do, how precisely to respond, and tell them the point totals associated with items and sections. Embedding an example of a correct response, avoiding vague terms and irrelevant information, and using bullets and numerals can help students comprehend test directions.

#### ► Test items

Good test questions are academically appropriate and employ best practices for composing multiple-choice, matching, true-false, sentence completion, and essay items. For example, in devising matching items, teachers ensure that:

- Directions inform students of the basis for matching the item pairs.
- Students are provided with a blank space (rather than a line) where they can record the letter or number associated with their response choice.
- Columns contain less than 10 understandable, grammatically similar item pairs related to a single topic with longer item statements listed on the left, and shorter item statements on the right.
- Columns are labeled appropriately and organized in a logical way with items listed in one column labeled with numbers, and items presented in the other column labeled with letters.
- Columns contain feasible choices related to common elements with only one correct

response for each pair and with about 25% more items in one column than in the other.

### Anxiety-reduction strategies

Students can learn to use anxiety reduction strategies before, during, and after testing (Whitaker Sena, Lowe, & Lee, 2007). For instance, rather than arriving early to the testing site, students can learn to come on time so they avoid anxiety-producing questions about the test from peers. Additionally, students can learn relaxation training techniques such as meditating, praying, smelling fragrances, taking deep breaths and breaks, engaging in positive self-talk, and focusing on past successes (Cizek & Burg, 2006). Some students may find it relaxing to listen to guided imagery, affirmations, meditations, or calming music, to visualize positive and relaxing images and experiences, or to sit in a nondistracting area of the room. Others may reduce stress by tensing and relaxing muscles, doing yoga, exercising, or using a squeeze ball. Teachers can embed visual reminders in tests to prompt students to these anxiety-reduction strategies.

### Teach test-taking strategies

Teachers can alleviate some of the tension associated with testing by teaching students to use effective and efficient study and test-taking strategies. Rather than teaching to the test, teachers can help students prepare for and succeed on tests by:

- Developing and reviewing study guides that communicate the purpose, content, and format of the test.
- Having students work in collaborative groups to identify content and test questions that are likely to be on tests, tutor each other, and design study and memory strategies. For instance, students can devise mnemonic devices such as *HOMES* to remember the Great Lakes (Huron, Ontario, Michigan, Erie, Superior).
- Providing students with opportunities to play educational games and complete practice exams that contain questions that parallel the content and conditions they’ll encounter during testing.
- Distributing a list of potential essay questions likely to be included on tests.

Educators also can teach students how to study. Rather than cramming, effective studying involves creating a schedule that includes a list of goal-based sessions that are reasonable in length and content. Students also can learn to enhance their studying sessions by having the appropriate resources and materials — textbooks, notes, homework, study guides,

**Teachers can make tests more accessible by enhancing the test's format, readability, and legibility.**

and highlighters. They should take breaks and conclude sessions by devising narrative and visual summaries and outlines of critical information.

Teachers can reduce tension during testing by teaching students to use test-taking strategies (Salend, 2009). For instance, teachers can help students perform well by teaching them to:

- Perform a memory dump/download when tests are distributed by jotting essential points, names, definitions, formulas, dates, and memory clues.
- Survey the test, respond to items that can be easily answered, and mark and work on items based on their level of difficulty and point values.
- Budget time according to the time allotted, the point totals of items and sections, and the difficulty level of the items.
- Highlight critical parts of test items and directions.

### Technology-based testing

Technology-based testing allows the testing experience to adapt to students' individualized preferences regarding the testing format and conditions they want to use (Salend, 2009). For example, students in consultation with their teachers can determine whether they want to have tests presented in any of a number of ways, including verbal, written, video/pictorial, masked, or via text/screen readers. They also may choose to respond via voice recognition, word processor, touch screen or keyboards.

### Family matters

Interventions to address test anxiety are more likely to be effective when teachers collaborate with students' families and other professionals (Conderman & Pedersen, 2010). Teachers can foster family involvement by providing parents or caretakers with information about test anxiety, testing and assessment practices, and ways to foster a child's use of effective study and test-taking strategies.

Professionals such as school counselors, school psychologists, and social workers can be an excellent resource (Huberty, 2009). For teachers, these

professionals can help identify students experiencing test anxiety and using effective strategies. For students, these professionals can conduct sessions to help students understand and deal with test anxiety. For families, these professionals can offer workshops, information, and resources about test anxiety and ways to overcome it.

In addition, educators can balance their use of testing. Rather than relying solely on test performance, educators also can use observations, performance assessment, active responding systems, and portfolio assessment to obtain a complete picture of their students' learning progress. However, educators should keep in mind that students experiencing test anxiety also may show high levels of stress during these other assessment activities. **K**

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