

Test and Performance Anxiety: Helping Handout for School and Home

NATHANIEL VON DER EMBSE, DAVID PUTWAIN, & WENDY SYMES

INTRODUCTION

Test anxiety is a type of anxiety that occurs in situations where performance is being evaluated, such as an annual state test, although its source may vary (Zeidner, 1998). Between 15% and 22% of students will experience high levels of test anxiety during their academic careers (Putwain & Daly, 2014). Test anxiety is considered to be one of several academic anxieties that may occur in the school setting (Cassady, 2010), which include content-specific (math, science) or context-specific (e.g., test, technology) anxiety. Thus, it is important to differentiate the type of academic anxiety that the student may be experiencing. For some students, test anxiety occurs when they experience self-doubt or question their academic ability. Other students may fear disappointing parents or teachers or see failure as having catastrophic outcomes.

Students might not appear highly anxious, and they may not tell anyone that they are feeling anxious. Indeed, a common experience for many highly test-anxious students is a belief that they are the only one who is experiencing high levels of stress and pressure. Such students could be characterized as silent underachievers, in that they may not be identified as at-risk students. Therefore, it is important to understand preventable triggers and to use effective assessments to identify at-risk students. Whatever its cause, test anxiety is usually experienced in three types of symptoms: cognitive-behavioral (persistent worries about upcoming exams), physiological (physical pain, upset stomach), and emotional (feelings of hopelessness). Not only is test anxiety unpleasant for students, it can also lead to a number of negative

academic outcomes. For example, high levels of test anxiety can lead to decreased motivation, increased risk of depression or anxiety disorder, disengagement from the instructional environment, and poor academic achievement (von der Embse & Witmer, 2014).

WHAT TO CONSIDER WHEN SELECTING INTERVENTIONS AND SUPPORTS

It is important to understand the underlying cause of a student's test anxiety before selecting an intervention. Individual student characteristics, teacher and parental practices, and situational factors have all been identified as potential sources of test anxiety.

Individual Student Characteristics

Students may have certain personal characteristics that predispose them to develop test anxiety. For example, students who fear failure on an upcoming test or assignment are more likely to avoid evaluative situations, such as by saying they are sick, to try to get out of a requirement or test. Students who do not believe they can achieve their preferred grade are more likely to give up or not work toward the goal. Finally, older students, such as those in high school who take college entrance exams, and girls report higher levels of anxiety than younger students or boys.

Teacher and Classroom Practices

Classroom climate and teachers' instructional practices can affect test anxiety in various ways. For example, classrooms that promote competition between students, including students within gifted or advanced placement courses, may increase

anxiety. High-achieving students demonstrate higher levels of test anxiety because they are more likely to compare their own performance with that of their high-achieving peers. Emphasizing the importance of attaining certain grades (“You need a 95% to pass this class”) or highlighting the negative consequences of failure too often (“Failure on this test will result in you not passing this class”) have also been identified as sources of anxiety.

Parenting Practices

Parental support can be an effective barrier against test anxiety. However, certain parental practices may make test anxiety more likely, for example, if parents focus on and reward outcomes (e.g., test grades) rather than praise the child's efforts and process (e.g., studying for test). Parents also may place undue importance on test outcomes for future educational and career attainment, such as emphasizing the importance of a college admissions test for future goals.

Situational Factors

For some students, the source of test anxiety may be the testing situation itself. For example, a high-stakes test is one that has significant consequences for the test-taker, such as class failure, grade retention, or admission to college. Such tests may have special concerns: students feel anxious about being in an unfamiliar environment, such as large exam halls, cafeterias, or gyms. Test anxiety also can arise as a result of worries about the content of a test. For example, students may worry about whether the test items will be too difficult or in an unfamiliar format (e.g., multiple choice versus written response). Finally, time-restricted or time-limited tests may result in increased test anxiety for some students, especially those with poor study skills or difficulty sustaining attention.

RECOMMENDATIONS FOR SCHOOL

Students may hold beliefs about the nature and consequences of stress and anxiety that might not be true. It is important to address these beliefs early in a child's academic career before they become problematic for test and examination performance.

1. **Meet with groups of students in the 3 to 4 weeks before high-stakes examinations and teach them about the effects of stress.** Incorporate the following three points in a way that is interesting and meaningful for students:

- Talk about stress as being neither a good thing nor a bad thing. Some students are oblivious to stress, and it has no effect on their performance. Some students may not do as well as they could in examinations when they are experiencing high levels of pressure; however, other students experience stress as a motivator that inspires them to perform better. Therefore, if students feel “stressed,” that is not necessarily a bad thing.
 - Tell students who believe they may be susceptible to underperforming because of test pressure that support and help are available. Students also should be taught to recognize the physical symptoms of stress and anxiety (e.g., racing heartbeat, sweaty hands, fidgeting) and should let someone at school know so they can receive help.
 - Explain to students the signs of “choking” under pressure. Choking responses include avoidance behaviors, such as procrastinating, deliberately not making an effort, or going blank during a test and not being able to recall previously learned material.
2. **Offer programs that promote emotional well-being and resilience in students.** Such programs can be incorporated into the school curriculum and offered to all students regardless of whether they might be deemed at risk for test anxiety. When used to support highly test anxious students, these programs should do the following:
 - Include content and examples from a specific test or examination, and be scheduled several months before the test to allow students time to practice recognizing stress and applying the skills learned under the school's program promoting well-being.
 - Be part of a whole school approach that emphasizes a school culture of well-being and resilience.
 - Be supported by school administrators to make sure staff receive training in critical skills, such as teaching students techniques to reduce stress. For example, whole school programming that focuses on behavioral strategies (relaxation training, deep breathing) and promotes student self-efficacy through targeted praise and encouragement has been shown to be effective in reducing test anxiety when staff are properly trained (Weems et al., 2015).
 3. **Identify students who might be experiencing high levels of examination anxiety as early as possible.**

Teachers and parents should be alert to factors that may increase the risk for test anxiety in individual students, such as the following:

- Personal triggers, which include perfectionist tendencies, poor test performance in the past, negative self-statements, unrealistic peer comparisons, and underdeveloped test and study skills.
- Situational triggers, which may include distracting test environments, competitive classroom atmospheres, family expectation of high performance, and stress experienced by educators themselves.

If those factors are present, consider screening for test anxiety. Paper-and-pencil instruments that are cheap to purchase, simple to administer, and straightforward to interpret can help to identify which students could be at risk from high levels of test anxiety. One tool to consider is the Test Anxiety Inventory (<http://www.mindgarden.com/150-test-anxiety-inventory>). Be aware that these kinds of assessments should not be interpreted in isolation or treated as the sole diagnostic tool, but should be used in conjunction with other indicators to identify students that may benefit from targeted intervention (e.g., underperformance on tests relative to ability or peers).

4. **Limit the effects of situational triggers for anxiety.**

The routines and activities surrounding high-stakes tests and examinations (e.g., desks in rows, large venues such as school halls or gyms, standardized procedures and instructions) can be a situational trigger for anxiety in some students and can exacerbate anxiety in other students. Take the following steps to minimize these situational triggers of anxiety:

- Normalize the experience. If students are used to taking tests in classrooms or other informal venues, then it is necessary to reduce the unfamiliarity of taking a high-stakes test in an austere environment. This can be done by scheduling tests and examinations at regular intervals (e.g., once per school year) in a large venue under high-stakes conditions.
- For students who have strong anxiety reactions, or who may experience a panic attack, schedule all examinations in a small venue with a familiar teacher or member of school staff present for reassurance.

5. **Consider the language adults use about tests and examinations.** Many teachers and parents want to discuss with students the importance of educational achievement, or performance on a specific examination. They want students to understand how their performance may affect job prospects or college entrance, and they want to encourage students to work hard in school or for forthcoming examinations. These conversations must be done carefully to avoid negative outcomes and should consider the following:

- Some students may interpret messages about the importance of examinations as motivational and respond positively (e.g., study longer, ask for assistance with unknown content), but other students will find them threatening (e.g., “I will never be able to succeed on this test!”). Those students may respond negatively, with lower motivation, disengagement from their studies, and higher test anxiety.
- Some students may understand the importance of academic achievement but are not confident about their ability to succeed, so they tend to respond in a negative way. These reactions are unrelated to actual ability. Do not assume that only students in middle or low achievement groups will lack confidence. It applies equally to students in high achievement groups.
- Do not talk about the importance of upcoming tests and examinations to whole-year cohorts or classes, because some students in those groups will inevitably respond negatively to such messages.
- Students who may have lower levels of confidence in their testing abilities will respond better to messages that emphasize content students have already learned and specific testing strategies. For example, “efficacy appeals,” or reminding students of past success, have been demonstrated to lower test anxiety.

RECOMMENDATIONS FOR SCHOOL AND HOME

A number of effective test anxiety interventions and strategies can be used both by teachers in their classrooms and by parents when helping their children

study for an upcoming test (see a review by von der Embse, Barterian, & Segool, 2013). Interventions are typically delivered at three points during the testing cycle: (a) the test preparation phase, (b) the test performance phase, and (c) the test reflection phase.

Test Preparation Phase—Helping Before the Test

Both parents and teachers can support students using three methods for test preparation. Those involve distributing the learning over weeks, reteaching the material, and giving students adequate time to learn and practice.

6. **Use distributed learning.** Distributed learning means that the material that students are required to learn and be examined on is spaced out over a period of time, with regular short tests of knowledge interspersed. Regular retrieval of knowledge is a good way to strengthen memory, as opposed to cramming before the test, which does not lead to encoding in long-term memory. Parents should help students develop a schedule for test preparation that provides for learning over time and frequent reviews.
7. **Use overlearning.** Overlearning is a strategy of practicing an activity until it becomes automatic. It is usually associated with motor skills, such as learning to drive or to play a musical instrument, but the same principle can be applied to exam-based knowledge too. Overlearning reduces the burden on cognitive processes during an examination, making recall and concentration easier. For example, memorizing rote facts or equations can allow students to devote their cognitive resources to problem-solving or answering questions on the test.
8. **Provide adequate preparation time.** Educators and parents should encourage students to spend adequate time preparing for an upcoming test—developing content knowledge and practicing test-taking skills—and reinforce the students' progress with positive and specific messages. Depending on the length and comprehensiveness of the test, the time needed could range from hours to days of test preparation.

Test Performance Phase—Strategies to Use During the Test

Teachers can prepare for testing by considering the testing environment and teaching students skills for monitoring and reducing their level of stress during the test.

9. **Provide appropriate accommodations.** Anxiety interferes with cognitive processes, such as memory, attention, and concentration. A highly anxious student will therefore work more slowly than an equally able but not anxious student. Testing accommodations, including extended time or a quiet testing location, may help to minimize distraction and allow for the additional time necessary to complete the exam. Because decisions about testing accommodations are often made at the school or district level, it is important to plan in advance for these adjustments in test conditions.
10. **Consider the “Stop, Drop, and Roll” intervention.** Young students, in particular, may benefit from this intervention. Students are taught common symptoms of test anxiety (increased heart rate, stomach flutters) and are then instructed to (a) stop what they are doing, (b) drop their pencil on the desk, and (c) roll their head around twice while taking deep breaths. Once they feel calmer, they can resume the test.
11. **Teach self-monitoring skills.** Self-monitoring has been shown to reduce test anxiety during the test. It involves training students to recognize common symptoms of anxiety, and then to select two or three to monitor. For example, a student may ask to practice monitoring fidgeting and increased heart rate. A teacher would then construct a chart with evenly spaced time intervals (e.g., 10 minutes) to record both behaviors using a simple 1- to 10-point scale. During an actual test, the teacher may walk around the room and discretely tap the student's desk, and the student would record the intensity of the behaviors on the scale. Monitoring one's behavior has been shown to have a reactive effect in reducing negative symptoms.

Test Reflection Phase—Preparing for the Next Test

Highly test-anxious students are susceptible to perseveration over past test results. That is, they cannot stop thinking about their poor performance. This can create a damaging cycle in which each test experience leads to greater anxiety and worse performance.

12. **Discuss positive plans for future tests.** An important task of educators and parents should be to discuss test results with students by focusing on areas for growth rather than on perceived weaknesses. Discuss goals for future performance and consider strategies to prevent avoidance behaviors (e.g., not studying for future tests).

RECOMMENDED RESOURCES

Websites

www.adaa.org

The Anxiety Disorders Association of America (ADAA) is the leading nonprofit organization whose mission is to promote the prevention, treatment, and cure of anxiety disorders and to improve the lives of all people who suffer from them.

<http://espace.bsu.edu/aarc/>

The website of the Academic Anxiety Resource Center includes assessments, interventions, and strategies to address academic anxieties.

<http://kidshealth.org/en/teens/test-anxiety.html>

This webpage from Nemours Children's Health Center's TeensHealth website focuses on test anxiety.

Books

Cassady, J. C. (2010). *Anxiety in schools: The causes, consequences, and solutions for academic anxieties* (Vol. 2). New York, NY: Peter Lang.

In this book, Cassady provides an overview of the multiple types of anxiety experienced in schools, with specific strategies to be implemented by educators and parents.

Cizek, G. J., & Burg, S. S. (2006). *Addressing test anxiety in a high-stakes environment: Strategies for classrooms and schools*. Thousand Oaks, CA: Corwin Press.

This book highlights how high-stakes tests, or the annual state test, can influence educational and test preparation practices. The authors provide practical strategies to prepare for the upcoming exams, and let teachers know how they can modify their classroom environment to promote achievement.

Martin, A. (2016). *Using Load Reduction Instruction (LRI) to boost motivation and engagement*. Leicester, U.K.: The British Psychological Society.

This review offers specific strategies for enhancing student motivation and engagement, reducing cognitive load, and promoting achievement. Martin emphasizes the role of guided discovery-, problem-, and inquiry-based learning to reduce anxiety and increase performance.

Related Helping Handouts

Anxiety: Helping Handout for School and Home

Perfectionism: Helping Handout for School and Home

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ABOUT THE AUTHORS

Nathaniel von der Embse, PhD, is an assistant professor of school psychology at the University of South Florida. His research examines school mental health, and teacher and student anxiety.

David W. Putwain, PhD, is the director for the Centre of Educational Research at Liverpool John Moores University. His research examines student motivation, emotion, and engagement.

Wendy Symes, PhD, is a lecturer in psychology at the University of Birmingham. Her research interests include test anxiety, student motivation, and the impact of high-stakes testing on the behavior of teachers and students.

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