

CONTRIBUTING FACTORS FOR PASSING HIGH-STAKES EXAMS

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Abstract

The Texas Accountability System for Educator Preparation (ASEP) is aimed to raise standards for educator preparation programs (EPPs) in Texas. Accountability is inevitable, but when met with upgraded curriculum requirements and continuously increasing program standards, the growing rigor of pass rate calculations and TExES exams creates additional challenges for university educator preparation programs. In due service to teacher preparation program candidates and ultimately school districts across the state of Texas, test preparation activities must be of paramount focus. A pilot study was conducted to explore methods and strategies for preparing pre-student teaching candidates for a TExES content exam. Pre-Student Teaching students (N=61) were surveyed from a small regional institution in south Texas. Students were enrolled in a Physical Education Teacher Education (PETE) program. Using a focus group format, students discussed taking the exam and shared feelings towards taking such a high-stakes test. Uncertainty of content, anxiety, self-confidence, and motivation were the four most common feelings shared by the students. Student feedback provided the framework for tutoring that was constructed to assist students with test preparation. Results for the format was determined by student input and feedback. The resulting program implemented offered practical, sustainable strategies adopted and proven that successfully moved one educator preparation program from struggling to thriving at a Hispanic-serving institution in South Texas with TExES pass rates now at 100% for six out of the past seven years.

Keywords: high-stakes exams, teacher certification, TExES, test preparation

Contributing Factors for Passing High-Stakes Exams

The recent emphasis on accountability has required an upgrading of curriculum, adherence to academic standards, and increased use of *high-stakes* tests to qualify individuals for employment. Education in Texas has witnessed such tests by creating the mandatory Texas Examination of Educator Standards (TExES) exams for the employment of incoming teachers, thus making the obligation of university programs to provide test preparation activities paramount. Texas law now requires that educators pass appropriate tests to become certified. The appropriate examination(s) required for certification are specified in the Texas Administrative Code, §230.21(e) (TEA, 2021). University-approved educator preparation programs (EPPs) annually provide the Texas Education Agency (TEA) and the State Board for Educator Certification (SBEC) information about their programs as mandated in Texas Education Code Section 21.045 and 21.0452. This data is used to calculate the indicators in the Accountability System for Educator Preparation (ASEP).

The purpose of these examinations is to ensure that each educator has the prerequisite content and professional knowledge necessary for an entry-level position in Texas public schools (TEA, 2021). . All TExES exams are criterion-referenced examinations designed to measure a preservice teacher candidate's knowledge in relation to an established standard of competence (a criterion) rather than in relation to the performance of other candidates. The exams are coded, assigned a number, and arranged by content area. Each exam is laid out by specific domains and competencies ascribed by the content area. The exams assess the content area proficiency and professional knowledge/skills of the preservice teacher. The exams follow the same format of multiple-choice question (MCQ) format and require an 80% pass rate.

The state of Texas now requires preservice teachers to successfully pass an exam in their designated content area before entering a full-time teaching position. The test is constructed to assess a candidate's knowledge in his/her field.

The TExES exam #158 for physical educators is divided into three major areas (domains): Movement Skills and Knowledge, Health-related Physical Fitness, and the Physical Education program with approximately 100 test questions from those domains. Passing this exam requires a score of 240 (80% or higher).

For many students, taking a high-stakes test such as the TExES exam #158 for EC-12 physical educators can cause stress and anxiety and affect students' test performance. Research has demonstrated numerous factors that researchers have explored to attribute to successful student performance on such exams; however, for the purpose of the pilot study, four major factors were utilized to boost student test-taking performance: 1) anxiety, stress, and fatigue, 2) self-confidence and self-efficacy, 3) motivation and morale, and 4) test-taking strategies.

Many students have difficulty with stress and anxiety when it comes to high-stakes test-taking. Studies have raised concerns about the impact these tests have on students. Jones et al. (1999) found increased levels of anxiety, stress, and fatigue are often seen in high-stakes testing and all three factors have detrimental effects on student performance. Test anxiety can be the primary determinant of a student's potential for success on a high-stakes test and students with high levels of test anxiety are often the least successful on high-stakes tests. Therefore, reducing test anxiety is a priority (Stenlund et al., 2018).

The second factor to consider is self-confidence and self-efficacy. von der Embse et al. (2015) in trying to maximize student scores on exams found only self-efficacy to be significant in contributing to positive beliefs. Smith (2002) examined college students' perceptions of their test-taking skills and reported a relationship between self-confidence and test performance. In addition, Bayram (2013) reported good test-taking strategies are not enough and students' self-confidence has an important role in their test performance. Morse and Morse (1993) noted self-efficacy judgments of test-taking ability do correspond to academic test performance. Finally, Gebiril and Eid (2017) found only self-efficacy to be significant in contributing to positive beliefs.

The third factor considered was motivation and morale. Kellaghan et al. (1996) found that if students do not believe that an opportunity for success exists, then the motivating factors will have a minimal effect. If students view passing the test as an insurmountable barrier, they may give up. Successful test-taking involves not only useful test-taking strategies but managing emotional and motivational concerns as well (Stenlund, et al., 2017). Beghetto (2005), when examining preservice teachers, found those who held positive self-judgments of their test-taking ability demonstrated higher test-taking abilities than those who held negative self-judgment of their test-taking ability.

The final factor examined was test-taking strategies. Teaching preservice teachers actual strategies for test-taking improves student performance. Dodeen (2002) found using appropriate test-taking strategies improved students' attitudes towards a test and reduced test anxiety. Bond and Harman (1994) reported appropriate test-taking strategies improved students' attitudes towards a test and reduced test anxiety. test-taking strategies used for multiple-choice structured tests. Cohen (2006) found "*looking for markers in a passage*" such as a keyword a beneficial strategy.

Bond and Harman (1994) suggested students practice with actual questions that are similar to those on the exam as a reinforcing strategy, and Janes et al., (2018) suggested guided study sessions to learn the test material. There is also evidence to support multiple sessions as an effective approach to information retention and improvements in test-taking skills (Rawson & Dunlosky, 2013). Finally, Dunlosky et. al., (2013) found multiple sessions and distributed practice to boost performance across all educational contexts.

In addition to the factors previously discussed, a concern often arises is that of reading ability and grade point average (GPA) when examining student test-taking strategies. Reading is a fundamental skill for being an accurate test taker and achieving success and serves as an essential skill necessary for success when taking tests. The students must be able to comprehend and decipher the information presented to them to formulate correct question responses. It is interesting; however, to note findings by Maddox and Reglin (2019) revealed GPA did not significantly predict the outcome of test scores.

Students register for and take a computer-administered test (CAT). Students are given a five-hour time frame for completion. A passing score is 240. The test is designed to assess whether a test taker has the required knowledge and skills that an entry-level educator in the field of Physical Education in Texas public schools must possess. The 100 multiple-choice questions (MCQ) are based on the Physical Education EC–12 test framework, and range from grades EC through 12 (TEA, 2021). The exam is divided into three domains: *Domain I* – Movement Skills and Knowledge (38% of exam), *Domain II* – Health-Related Fitness (31% of exam), and *Domain III* – The Physical Education Program (31% of

exam). Many students have fear and anxiety of taking such high-stakes tests and often feel the pressures of not only taking the exam but passing as well. Passing is imperative as it is now a Texas Education Agency (TEA) requirement for employment in Texas public schools.

Purpose of the Present Study

Although testing and accountability are intended to improve achievement and motivate students, often preservice teachers do not fully understand the nature of the test itself. Many students are confused about what content material is actually on the test and are anxious about taking a test of that magnitude, or worse, they know someone who has failed it. Helping students overcome the unknown and feelings of anxiety is where the researchers started. In higher education, many Educator Preparation Programs (EPPs) are facing the challenge of understanding how to best help teacher candidates prepare for and achieve passing TExES scores for one or more of the required state exams. Students may have attained course content knowledge proficiency, yet they are lacking in applying strategies necessary to exhibit test-taking proficiency.

Because passing a content test of high-stakes magnitude can be stressful, a pilot study was conducted to examine student concerns and utilize their feedback to construct an intervention providing structured tutoring to assist in preparation for the exam. The four factors found in the research: 1) anxiety, stress, and fatigue, 2) self-confidence and self-efficacy, 3) motivation and morale, and 4) test-taking strategies were utilized in designing a program to assist preservice students in preparing to take the TExES #158 exam. The success rate of passing scores for TExES #158 at a regional institution in south Texas has steadily increased over the past decade since its conception. The purpose of this study was to examine methods and strategies for assisting pre-student teaching candidates in preparation for a TExES content area exam. The researchers will conclude by offering practical suggestions that highlight strategies and procedures adopted to produce not only passing scores but provide quality teachers to deserving school districts in south Texas.

Method

A convenience sample ($N=61$) was utilized to conduct the study. Students in a teacher preparation program who were enrolled in an Elementary Physical Education methods course were part of a focus group designed to ask questions, address concerns, and collect comments and feedback regarding the upcoming TExES #158 (EC-12 Physical Education) state exam they were required to take. From the student feedback provided to one of the researchers who are the EC-12 Physical Education Program Coordinator in the university Department of Health & Kinesiology. The feedback provided by the students would be categorized and analyzed to design an intervention for assisting students in taking this high-stakes exam. Feedback was analyzed in qualitative methods to determine merging categories of student concerns. The following steps were utilized: Collect the data/feedback, determine categories that emerged, label categories, code the content, and analyze the results.

Results

When analyzing the feedback, five themes emerged: 1) anxiety, 2) fear of the exam itself, 3) lack of self-confidence, 4) lack of understanding of the test content and format, and 5) lack of test-taking strategies. The most prevalent concern expressed by student respondents regarding the TExES #158 exam was *anxiety*. Students described their anxiety as a result of fear of failure combined with the pressure of passing the exam and not only to qualify for progress in the educator preparation program. The sample group of students was enrolled in an educator preparation program that requires passing scores on TExES exams to qualify for the clinical experience (student teaching). As student teaching is a requirement of the degree plan, this inherently meant the exams would serve as a requirement (or a barrier) to graduation. This clearly was at the forefront of student concerns causing a great deal of anxiety as a result of pressure to succeed, and timely so. Students also detailed their anxiety was the result of concern for their professional futures. Without a passing score on the TExES #158 exam, they would not be eligible for the Standard Classroom Teacher Certificate. The combination of pressures to succeed contributed to their test anxiety.

Student participants also detailed fear of the exam itself. Student participants described the task of preparing for the TExES #158 exam as daunting, intimidating, and stressful primarily because just the thought of having to take the test at all was overwhelming. Generally, students attributed their fear of the TExES #158 to prior experiences with poor exam performance. It became quite evident that student participants almost resented the need to responsibly anticipate the reality of the exam. The researchers believed this also to be a result of the combined pressures for success (anxiety).

Another theme that emerged from the data was with lack of *self-confidence*. Students expressed that because of the pressures to succeed and as a result of the fear of the exam itself, students held negative perceptions about their potential for success. This lack of confidence was defined as a result of an overemphasis on the potential for negative results. Recognizing educator preparation program deadlines, students would make statements like, “if I take the test by this date, I have two more tries before the deadline.” This mentality was proof that students already anticipated a failure of the exam or possibly more than one failed attempt.

During the data collection period, the researchers also identified that a lack of understanding of the test content and format as another prominent theme. Students had very little understanding of what to expect on the TExES #158, not only in terms of content (domains, competencies, knowledge and skills) but also in terms of structure (the number of questions, how much time was allowed, how the scoring was calculated, etc.). Although there are materials available for students to review and gain some level of understanding about the test itself, there was no initiative to do so. The researchers observed that as a result of test anxiety, fear of the exam, and a lack of confidence in their potential for success, students almost shut off any intention or mild desire to pursue information about the exam. There was no drive or motivation to research and understand what the test contained.

The researchers also noted that students lacked *test-taking strategies*. Student participants lacked any type of strategic method in preparing for a high-stakes test. In fact, student participants were heard saying they “wished for a review sheet,” a style of test preparation to which they have become accustomed. In this preparation method, students are provided with a review sheet that details all that can be expected on an upcoming exam and in some cases, word-for-word questions and the correct answers. Student participants were not prepared with strategies, techniques, and approaches to succeed in test content, format, and in the administration environment.

Discussion

The purpose of this study was to examine methods and strategies for assisting pre-student teaching candidates in preparation for a TExES content area exam. Upon analyzing data collected from students, the researchers identified five themes that detailed student concerns about exam preparation: 1) anxiety, 2) fear of the exam itself, 3) lack of self-confidence, 4) lack of understanding of the test content and format, and 5) lack of test-taking strategies. The results provide important insight for educator preparation programs about the student experience, especially as it pertains to exam preparation and the teacher certification process.

Educator preparation programs are charged with the responsibility of preparing high-quality teachers for tomorrow’s classrooms. To do that effectively, program leadership and staff must be prepared and willing to recognize areas of opportunity, particularly those that encourage program improvement. One way is to seek out student voice and to incorporate those voices as forms of data-driven decision-making (Varela et al., 2020). This study afforded researchers the opportunity to understand the student’s position. The results offer insight into what internal and mental barriers were in existence before a test preparation strategy could be developed. It is the concept of meeting students where they are (Schouten, 2017); a commitment that requires systems of education to reconfigure antiquated practices that are universally applied and focus instead on the individual learner and individual learning needs.

A perfect score for the exam is 300. Students must achieve 80% or a score of 240 to pass the exam. The pressures students experience for criteria of this magnitude can cause stress and anxiety for many preservice teachers. Achieving a passing score is not only important to the student test-taker but the Educator Preparation Program (EPP) as well. The Texas Education Agency (TEA) reports each student’s score to the student and to the EPP. The regional institution had previously reported such totals as a 76% rate for the exam. The researchers involved in the testing designed a plan to improve those scores.

From the emerging themes found in this data, the Program Coordinator used the information to begin the construction of a student tutoring program to assist students in test preparation. The individualized tutoring program is intentionally designed to target not only student content deficiencies but more importantly to address the points of text anxiety found in the themes. The program seeks to help build student confidence, provide an in-depth review of test format and administration structure, and to address negative perceptions of ability and capacity to succeed. Implementation is underway and longitudinal data (including TExES exam scores) is being collected for future reporting. The Program Coordinator is designing strategies and techniques to use with students as they tutor for TExES #158.

Students provide additional feedback regarding what strategies and techniques implemented worked best for them upon completion of tutoring sessions conducted and passing the actual TExES #158 exam.

Limitations

The sample consisted of 61 students at a regional institution in south Texas. Any generalizations regarding our findings are limited. Students were asked about fears, anxieties, and issues they had for the upcoming high-stakes TExES exam. Readers should use caution in interpreting results. What worked for this institution may not be generalizable for others. For methodology purposes, this was a small sample size, a larger sample could yield additional factors to examine. In addition, the feedback was self-reported data given by students preparing to take a high-stakes exam. A possible limitation to the researchers is having access to students. The university is a small regional institution with a predominantly Latino population and the teacher preparation program has a small number of preservice teachers. In addition, longitudinal effects are warranted for future investigation.

Suggestions for Future Research

Further investigation and additional intervention programs are needed to better address this growing issue of high-stakes test-taking. Results provide necessary insight into the need to train future teachers, and university administrators how to better recognize, understand, and respond to test-taking strategies for certification testing.

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