Teaching to the Test: A Controversial Issue in Quantitative Measurement

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ABSTRACT

The purpose of this paper is to present a research-based discussion of the pros and cons of focusing curricular and pedagogical decisions primarily on mastery of those skills and concepts measured by standardized tests. This paper presents scholarly discourse based on testing systems and school accountability, along with a presentation of the advantages and disadvantages of what is commonly referred to as 'teaching to the test.' The authors of this document found research studies to be inconclusive with no clear indication of whether or not there is an advantage or disadvantage to the practice of teaching to the test. But most notably, the actual issue connected to this debate may be the lack of understanding of item-teaching and curricular teaching. In the mind of many educators, item teaching, curriculum teaching and teaching to the test are synonymous.

Keywords: Testing, Student Achievement, Pedagogical Practice, Standardized Tests

INTRODUCTION

K-12 education in the United States has continued to grow and expand over the course of our nation's development.
Throughout the early development of the American education system, there was an emphasis on guaranteeing students equal opportunity or access to schooling. In recent years, facilitated by accountability measures, the focus has changed from university opportunity or access, to universal competence. Although controversial, this philosophical shift has brought great attention, and use of resources, to standardized testing as a primary form of learning assessment. In fact, due to the high stakes surrounding such testing, educators around the United States have adopted personal beliefs as well as teaching strategies to compensate for such assessment practices. One example of this practice is what is known as teaching to the test.

This paper will explore related literature surrounding the concept of teaching to the test to determine the pros and cons associated with teaching philosophies and testing formats currently in use in the United States. The validity of these practices and their implications will also be addressed to set the stage for what have become all too common improper teaching practices.

THEORETICAL FRAMEWORK

The Era of Accountability

Though accountability measures seem more prevalent today than in previous generations, accountability can be traced back to as early as Horace Mann in the 1940s [1]. Mann was disappointed with the quality of public education in Boston and thus decided to conduct research to measure student learning. Findings from Mann's research indicated that students were not able to answer questions that implied knowledge of the content being studied; rather, they could only produce the information that was constantly given in drill and practice exercises. Moving a century ahead, Stiggins, 2007, described the use of standardized testing in the 1950s as a means to compare and rank schools, school districts, states and nations [2]. The authors categorize three testing systems, each with a prominent presence, which have circulated throughout our educational system and include the old system, the No Child Left Behind Act of 2001, and the current system.

The Old Testing System

The old testing system focused on individual teaching testing. In this testing system, there was little collaboration between disciplinary teachers and minimal, if any, teacher preparation on how to effectively measure student learning. Deubel (2008) describes the school climate as inconsistent, with no really clear indication of standardized student performance across disciplines and grade levels [3]. To proactively improve this setting, disciplinary standards and guidelines were developed; however, these standards were not enforced and served as mere suggestions to teachers as to the content that should be taught within their classrooms. This resulted in a system that provided no curricular benchmarks or guarantees of equal student competencies upon graduation. Further, it was extremely difficult to gauge what content knowledge each student had gained through their education and even more impossible to gauge a standardized score per grade level.

The No Child Left Behind Act

In 2002, President Bush signed into effect the No Child Left Behind Act, NCLB, which had major implications for standardized testing. As the NCLB Act was integrated into classrooms, there was a shift in the importance of standardized testing, as schools were now held accountable for their students' scores. Prior to the Act teachers were at ease regarding the standardized tests, ensuring students these scores would not impact their education; however, after the act was signed, the scenery changed. The NCLB Act required all schools to test students in grades 2-12 in reading, math and science, and meet adequate yearly progress towards standards of proficiency (¶ 3) [4]. If progress was not made in these areas, there were extreme consequences such as federal sanctions, loss of federal funds, and even the potential for a school restructuring (¶ 3) [4]. With such heavy consequences, one can understand the importance and associated pressure of performing well on standardized tests, and how standardized testing impacted both educators and administrators. In addition, raising test scores has become the single most important indicator of school improvement (¶ 4) [5].

As expected with such stringent repercussions for inadequate test results, the emergence of a new issue arose within education: the extremes of teaching to the test. Bond (2005) further defines both extremes to teaching to the test with one side, "examining state objectives and designing curriculum around those objectives to improve understanding," and the other side, "drilling students on actual test items that will appear on the tests to improve scores" (¶ 2) [6].

While teaching to the test can improve the standardized testing scores of students, it narrows the breadth and depth of knowledge and the application of knowledge a student receives. This can then have an adverse effect on student learning and create the public illusion that student learning is improving when in all actuality, it is in fact decreasing.

The Current Testing System

The current system utilizes a standardized test that incorporates cost-effective forms of response such as multiple choice, essay and free response (p. 3) [3]. Many educators argue that multiple choice testing is a poor indicator of student achievement and that such testing should not be the sole measure of student achievement. Further, the United States is the only economically advanced nation to place heavy emphasis on multiple-choice assessments; and furthermore, when compared to those nations who use performance-based assessments, US students are outscored on multiple choice testing (¶ 9) [5].

Concern as to why this sole form of assessment is utilized and the effectiveness of such measures compels both methodologists and educators to question the validity and reliability of our current national testing system. Multiple-choice tests are believed to measure very little in regards to student learning and are therefore a poor testing evaluation method used for accountability (¶ 6) [5]. Though methods of qualitative and performance-based assessment have been noted as enhancements to the current testing instrument, the cost and reliability of these alternative assessments has served as an obstacle for adoption.

ADVANTAGES AND DISADVANTAGES TO TEACHING TO THE TEST

Similar to standardized testing as a sole form of assessment, teaching to the test has become a controversial topic. Educators and administrators have mixed feelings surrounding the practice, with both sides making valid points either for or against the practice. This section will discuss some of the advantages and disadvantages cited in literature and provide examples of how teaching to the test has been utilized within our education system.

Advantages

Advantages of teaching to the test include teaching the skills and content areas that will be represented on a test [4, 7], the increased revision and development of aligned curriculum maps [3], the need to truly determine whether or not teachers are teaching effectively and students are actually learning [4], the shift from teacher-centered to learner-centered accountability [3], and the increased emphasis on testing in both the academic and professional environment [4].

While often times there are negative associations with regard to teaching to the test, some educators believe that this strategy can be utilized to teach effectively and ethically without compromising students learning. For example, one teacher states that if persuasive writing samples will be utilized on the test then it is important that students practice effective techniques associated with persuasive writing [7]. By focusing more time in class on other types of writing, such as narrative writing, the teacher is limiting the student's ability to develop the competencies needed to perform well on the standardized test. By incorporating all types of writing into curricula but ensuring students have a greater understanding of persuasive writing reflects good instructional programming on the teacher's behalf. The teacher would still be covering all required and essential skill development for writing effectively; however, the emphasis on practice activities associated with persuasive writing will be higher as opposed to other forms of writing. An example of how this practice could be utilized unethically would be giving students a closely related persuasive argument to reflect an argument they will see on the standardized tests and allowing them to rework that specific practice exercise until they can successfully argue that point.

By ethically teaching to the test educators have also seen a transformation within curriculum mapping. With a better understanding of the bodies of knowledge that will be tested by grade level, school districts have been able to better align state standards and curriculum expectations to meet those that will be assessed on the standardized tests [3]. This type of curriculum design has also been described by Wiggins and McTighe (2005) as "backward design," which is a curriculum development process that focuses on achieving desired student learning [8]. Again, this is not excluding greater bodies of knowledge rather redirecting and refocusing efforts on essential skill development in particular areas at certain grade levels.

Another advantage to teaching to the test is the increased emphasis it places on effective teaching as measured by student learning evidenced through student performance on standardized assessments. This has led to an increased focus on effective pedagogical strategies such as Marzano's Classroom Instruction that Works [9]. Classroom Instruction that Works (CITW) is an example of a conceptual framework which

focuses on the classroom instructional strategies proven by research to be most effective. In order of importance, these strategies include: identifying similarities and differences; summarizing and note taking; reinforcing effort and providing recognition, homework, and practice; nonlinguistic representation; cooperative learning; setting objectives and providing feedback; generating and testing hypotheses; and cues, questions, and advance organizers. By integrating pedagogical strategies such as CITW into daily curriculum, teachers focus on how to deliver content in meaningful ways with the end goal of improving student achievement and equipping students with the skills needed to perform successfully on standardized tests.

One school district in North Carolina identifies successful standardized testing stories found within a particular school and tries to capture the best practices to improve scores within the entire district [4]. This is a great way to make strides in effective teaching practices, foster teacher collaboration, and investigate learning techniques utilized by teaching with high student scores in particular content areas on the standardized tests.

Teaching to the test has also shown a shift in mindset from teacher-centered to student-centered learning [3]. The movement to more accountability has lead teachers, students, and parents to better understand that critical thinking skills, problem-solving abilities, and connecting and building off previous knowledge are required components to be successful in both student learning as well as standardized testing. By refocusing this mindset more parents are vested in helping their children develop these skills and the accountability for student learning is more centered on the actual student (p. 3) [3].

Finally, the need for mastery of testing skills has been emphasized in the era of accountability. Students will encounter similar types of testing throughout their academic as well as professional careers. While there are some techniques that are extreme, one educator in California believes that only in the education sector do we criticize those teachers who try to develop high-stakes testing skills [4]. Examples of professional testing can be seen in many fields such as Architecture, Interior Design and the Medical Field in which understanding effective strategies of how to study, prepare and take such standardized tests are often encouraged.

Disadvantages
Some of the disadvantages of teaching to the test include the validity of one test to impact major educational decisions [5], the negative impact on minority students [5], test skills don't help students after middle school who have not developed critical thinking skills [4], the increase of cheating in high stakes testing [4], the lack of excitement and motivation to learn [4], and a lack of emphasis on other areas not found on testing such as physical education, music and the arts [10].

Many educators feel that there are many levels in which an individual can gauge student learning and achievement; with standardized testing being only one of those measures. Many students have different learning styles as well as testing styles therefore it is highly unreliable to use only one standardized test score to determine student growth and learning such as student readiness (how ready a child is for school), screening (whether or not a child has a disability), tracking (hurts slower students) and retention in grade (determining whether or not a student

should be promoted to the next grade level) (¶ 2) [5]. While this should be one type of assessment considered, portfolio-based assessments, general school year assessments, as well as qualitative assessments should be conducted prior to making decisions in any of these areas.

Research has also shown that low-income, secondary English speakers and minority students do not perform as well on standardized tests as do Caucasian students [11]. By utilizing standardized tests as a sole mean of educational decisions, many of these students are misplaced into remedial courses that implement drill and practice techniques creating a larger gap between the knowledge these students have to their Caucasian counterparts. Additionally by measuring student achievement solely on standardized testing students who perform poorly on such tests face an additional barriers in college admissions processes as many schools remain highly selective and evaluate students based off of standardized test scores [12].

Low-income, secondary English speaking, and/or minority students also lag behind their counterparts in developing essential critical thinking skills that are typically utilized heavily after middle school testing. The increased pressure placed on teachers to ensure students perform well on standardized testing places a focus on vocabulary and "drill-and-practice" instructional strategies that emphasizes the recall for information [13]. While these skills are needed, critical thinking is often left out of such instruction. To further complicate matters, some teachers believe that focusing on developing critical thinking skills should be reserved only for high achieving learners [13]. Without the opportunity to practice and refine critical thinking skills the achievement gap between low-income, secondary English speaking, and minority students and their counterparts is widened; and, as a result, these students perform poorly in standardized testing.

There has also been an increase in the amount of cheating that is associated with high stakes testing due to the incentives provided to teachers, students and schools who obtain high test scores. This increased pressure from teachers and parents for students to perform well can decrease student motivation and excitement to learn [4]. This can be a significant barrier to achieving student learning within the classroom and prohibit student engagement within the classroom. Finally, with testing focused on reading, writing, math and science, there has been a shift in priority to those subject areas, with schools placing less emphasis in areas such as physical education, music and the arts [14]. While these may not be reflective areas to assess student learning, these areas are of extreme importance in developing a well-rounded student and ensuring that students are developing mentally as well as socially, spiritually, and physically.

CONCLUSIONS AND DISCUSSION

While extensive research has documented the strengths and weaknesses of teaching to the test, there are no concrete practices in place to detect teachers who are teaching to the test. Popham (2001) does recommend deterrence procedures to help reduce the amount of teaching to the test found in the education sector. These practices would include providing assessment literacy to help ensure policymakers a deeper understanding of the kinds of high stakes tests they should use to adequately measure student achievement [14]. Furthermore, the underlying issue, relative to this debate, may be the development of an authentic understanding of the difference between item teaching

and curriculum teaching (p. 19-20). Understanding this difference may bring greater credibility to what is thought to be teaching to the test. Through comprehensive professional development for teachers and school leaders, this important differentiation may be determined.

Most disturbing though is the use of unethical practices aimed at improving student standardized test scores. These practices have been fostered through undue pressure, primarily internal pressure created by teachers and administrators themselves, to provide students with answers to test items without developing problem-solving and higher order thinking skills and, most importantly, knowledge transfer. Superficial teaching of disconnected skills and concepts may continue in K-12 classrooms until standardized tests better measure the depth of knowledge truly desired of students to successfully navigate today's complex advanced job market upon graduation.

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