

Standardized Testing and its Effectiveness for All Students

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Abstract

Standardized testing is ingrained in the education system. Educators, administrators, and school systems rely on data from standardized testing to guide instruction, assess students, and determine teacher effectiveness. Previous research has detailed the potential ineffectiveness of standardized testing, while other studies have concluded that it is both valuable and necessary to the system. The purpose of the present study was to determine educator opinions of standardized testing, state standards, and whether both are essential to students and teachers. Teacher candidates were selected for interviews based on voluntary participation. Participants reported both strengths and weaknesses of standardized testing and determined that standards are ultimately essential to the education system's effectiveness. Further research on the topic is necessary to gain a full understanding of the impact of the standardization of education.

Keywords: standardized testing, standards, effectiveness, data, education, teacher candidates

Milligan IRB

Date: February 18, 2021

From: The Institutional Review Board (IRB) at Milligan University

Re: *Standardized Testing and Its Effectiveness for All Students*

Submission type: Expedited Review

Dear Miriam Stout:

On behalf of the Milligan University Institutional Review Board (IRB), we are writing to inform you that your study, *Standardized Testing and Its Effectiveness for All Students*, has been approved as expedited. This approval also indicates that you have fulfilled the IRB requirements for Milligan University.

All research must be conducted in accordance with this approved submission, meaning that you will follow the research plan you have outlined here, use approved materials, and follow university policies.

Take special note of the following important aspects of your approval:

- Any changes made to your study require approval from the IRB Committee before they can be implemented as part of your study. Contact the IRB Committee at **IRB@milligan.edu** with your questions and/or proposed modifications.
- If there are any unanticipated problems or complaints from participants during your data collection, you must notify the Milligan University IRB Office within 24 hours of the data collection problem or complaint.
- Your Milligan IRB Approval Code is: MU2102181453

The Milligan University IRB Committee is pleased to congratulate you on the approval of your research proposal. Best wishes as you conduct your research! If you have any questions about your IRB Approval, please contact the IRB Office and copy your faculty advisor if appropriate on the communication.

On behalf of the IRB Committee,

Tony Rangel, Ph.D.
Chair, Institutional Review Board
Milligan University



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Chapter 1: Introduction

Standardized testing is an integral component of education today. In order for the system to work properly, educators must work to ensure that standardized testing accurately assesses all students. Since the implementation of Tennessee Academic Standards, educators and school systems have begun to rely more heavily on standardized test scores. Both teachers and students are held to a higher standard due to standardized testing and the importance of scoring. Since Common Core began nationally, however, test scores have significantly declined (Albers, Dooley, Flint, Holbrook, & May, 2016). There has been a particular decline in test scores of minority students (Ford & Helms, 2012).

Though the decline in test scores is compelling, there has been a collective question of whether these scores are reliable. Though the tests themselves are standardized, students, teachers, classrooms, and environments are not (Neill & Medina, 1989). Classrooms vary widely, and these differences are simply unpredictable, particularly in elementary classrooms (Bower, 2016). In addition, some students are visual learners, while others are auditory or kinesthetic learners. The variation in learning styles may not lend itself to standardized testing. Other students have severe test anxiety that affects their overall educational experiences. Despite student content knowledge, their performance on these tests may not reflect what they know due to a number of different factors. It is imperative that the system used to assess students works properly and that it is not putting particular students at an immediate disadvantage.

Statement of Problem

Though there has been extensive data collected on standardized testing, one component of the topic that has not yet been explored is the opinions of educators.

Educators are consistently expected to teach according to the standards addressed on high-stakes tests, but educator opinions on the reliability of the tests have not been widely addressed.

Purpose of Study

The purpose of this study is to examine the opinions of teacher candidates to determine whether they believe there is an alternative to standardized testing for measuring student proficiency. This study will seek to understand how educators, specifically teacher candidates, feel about the reliability of standardized testing.

Significance of Study

Standardized testing has been used extensively as a measurement tool for both students and teachers. These scores are heavily relied upon by educators, administrations, and school systems in various parts of the country. There is, however, little research to suggest that educators support the validity of these scores. There are many variables that could affect the reliability of test scores, including differences in teaching styles, classroom environments, and student personalities. Because of this, it is important to determine whether or not educators believe that the expectations associated with standardized testing are consistently met.

Limitations

1. It is assumed that teacher candidates are aware of the impact, if any, standardized testing and Common Core have had on education.
2. This study will be conducted at a single university in Northeast Tennessee and may not represent the opinions of teacher candidates everywhere.

Operational Terms and Definitions

- 1) Standardized test: a test that requires all test-takers to answer the same or similar questions; a test that is administered and scored in the same way everywhere
- 2) Teacher candidate: a university student who is currently completing a student teaching (undergraduate) or internship (graduate) placement

Overview

This study is outlined in five chapters. The first chapter discusses the introduction, statement of the problem, purpose of the study, significance of the study, and limitations. The second chapter is a review of literature relevant to the topic. Chapter 3 discusses methodology and procedures involved in the study. Chapter 4 consists of data collection and analysis. Finally, Chapter 5 discusses recommendations for next steps in future research.

Chapter 2: Review of the Literature

Standardized testing is a significant component of the educational system, but there is much debate about its effectiveness. Many researchers agree that there are adjustments that could be made to improve the accuracy of test data. There are several themes surrounding the literature about standardized testing, but primarily, there is an overarching question of whether or not it is an accurate tool of measuring students. Also discussed are the ways minority students are affected by standardized testing, as well as the influence politics have on the education system as a whole.

Standardized Testing as Assessment Tool

Predominantly, standardized testing measures student retention of facts. It sometimes fails, however, to test or foster student creativity (Bower, 2016). As all students learn and grow differently, standardized testing does accurately measure a number of them. There is a question, however, of whether it is reaching its full potential for all students. One suggestion is to abolish standardized testing entirely (Bracey, 1990). The primary concern with this type of testing is that although the test itself is standardized, the students, environments, and teachers are not (Neill & Medina, 1989). This can greatly affect scores from one state to another, one district to another, or one classroom to another. Ultimately, putting students into a single category blatantly ignores all other abilities they may have (Bracey, 1990). This is especially true for early elementary students, where classroom environments are highly varied and unpredictable (Bower, 2016).

Much of the debate and dissatisfaction surrounding standardized testing has emerged with Common Core State Standards (Ferguson, 2015). Common Core brought testing to the public eye and the process became much more rigid. Many believe that the

focus shifted from the student to the test (Ferguson, 2015). Rather than school being a conglomeration of various different experiences, it became data-driven and single-faceted (DeWitt, 2013). Though assessing students based on a single set of standards provides a base-level for assessment, creativity is an essential component of education that seems currently to be lacking (DeWitt, 2013). As DeWitt states, “We can be driven only by reliable data if we are truly going to help our students. Forcing our students to sit for six hours of exams over a two-week period does not result in good data” (2013, p. 191). He suggests that testing is necessary but needs significant revision to accurately measure all students (DeWitt, 2013). In short, school should not only be a place of business.

The general consensus is that standardized testing is largely unreliable (Longo, 2010). Despite this, it is believed by many that it is necessary to the educational system (Starr, 2017). Albers, Dooley, Flint, Holbrook, and May suggest that changes need to be made not to the tests themselves, but rather the standards and how they are implemented (2016). In addition, differentiation is paramount in ensuring that all students are receiving the same information in their own, unique ways (Watts-Taffe, Laster, Broach, Marinak, Connor, & Walker-Dalhouse, 2012). Standardized testing only addresses a single learning style, and,

...particular ways of learning are not privileged over others. Instead, it is understood that children bring to school an array of valuable cultural and linguistic experiences that may be similar or dissimilar to those of the teacher or other children in the classroom (Watts-Taffe et al., 2012, p. 307).

Standardized Testing and Minority Students

Statistically, minority students perform more poorly on standardized tests than white students (Ford & Helms, 2012). There has especially been a decline in scores since the implementation of Common Core State Standards (Albers et al., 2016). Minority people, particularly referring to Hispanic and black populations, are widely underrepresented and under-sampled in a variety of different ways, not just in education. This occurs for several reasons, but primarily, there is a bias in the general population against minorities (Mendoza-Denton, 2014). This creates potentially unintended biases in classrooms and on standardized tests, such as culturally inappropriate test questions (Ford & Helms, 2012).

According to Back, Hispanic students represent the fastest-growing population in the United States today (2020). This issue is more prevalent than ever, partially because minority populations may soon not be minorities anymore. Adjustments must be made for standardized testing to continue to measure all students from all backgrounds. In many cases, minorities are not given the same opportunities as white people, therefore performing more poorly on standardized testing. Mendoza-Denton suggests that the problem is not with standardized testing itself, but rather in the community (2014). Discrimination is a larger problem and the bias in standardized testing is just one effect of that. In addition, background knowledge used by students on standardized tests is based on personal experiences and is often affected by culture. These tests are designed for students who have experienced a white, middle-class upbringing (Neill & Medina, 1989).

Albers et al. suggest that, to rectify the problems, the tests should be administered the same way they are now (2016). The tests and questions themselves, however, should be rewritten (Albers et al., 2016). Neill and Medina, on the other hand, believe that the entire process should be altered (1989). There are various challenges with standardized

testing, but a significant one is the testing environments themselves (Neill & Medina, 1989). Though genuine efforts are made, there is no way to ensure that any two testing environments will be the same, much less all of them. This inherently facilitates discrimination toward any number of students in certain settings (Neill & Medina, 1989).

On a particular standardized exam in Texas, referred to as the STAAR, there is a significant problem with the lack of options for minority students (Back, 2020). Despite the large Hispanic population in Texas, the test fails to offer native language or bilingual test variations (Back, 2020). In addition, the test questions are written for white, middle- to upper-class students, much like standardized tests across the country. Starr (2017) suggests that, although there is bias in standardized testing, eliminating it entirely is not the answer. Testing is necessary in the educational system as a tool to recognize these biases and work to correct them. Finding the balance between completely abolishing testing and relying on it blindly may be the key to successfully transforming the system (Starr, 2017).

Teacher Autonomy

Many teachers and parents alike argue that standardized testing and Common Core greatly limits teachers in what they are able to do in the classroom (Zuberi, 2015). Rather than teachers having the freedom to teach students what will be relevant to them in their individual futures, they are now required to teach to the test. Not only is this a large portion of classroom time, but they also must dedicate time to teaching test-taking strategies (Zuberi, 2015). Although teaching to the test is a fact of life in the educational system today, there are creative ways for teachers to do so (Longo, 2010). Zuberi suggests

that more time should be spent on practical, life lessons and less time on test-taking strategies that will not be relevant to students once they are out of school (2015).

Alternatively, there are many teachers in support of state standards and standardized testing (Buck, Ritter, Jensen, & Rose, 2010). In a study involving 42 teachers in Arkansas, Buck et al. found that most actually supported standardized testing for a variety of reasons (2010). Teachers listed many benefits, arguing that standards provide a lesson plan roadmap for the schoolyear, and data collected from testing is useful for both students and teachers (Buck et al., 2010). Perhaps most intriguing is that almost all teachers interviewed agreed that testing does not, in any way, limit creativity in the classroom (Buck et al., 2010).

Some argue that, though standardized testing may not hinder teachers in the way many believe, teachers are an important component that standardized testing is missing (Missall, Hosp, Hosp, & Meisinger, 2019). Missall et al. suggest that teacher input should be considered along with test scores (2019). In an Iowa study involving 980 students and their 51 homeroom teachers, researchers found that teachers more accurately assess student proficiency than standardized tests (Missall et al., 2019). In contrast, tests were actually found to be more successful at determining nonproficiency (Missall et al., 2019).

Political Influence on Standardized Testing

Today, the educational system is largely influenced by politics (Croft, Roberts, & Stenhouse, 2015). This presents many challenges, one being that education as a political game does not address individual students or teachers (Croft et al., 2015). In addition, politicians are simply not equipped to make important decisions regarding education (Croft et al., 2015). Jolley suggests that, for all aspects of education to be successful and

reach its full potential, policies must be influenced by teachers rather than politics (2014). Jolley also argues that politicians have an agenda and, most importantly, do not have the students' best interest at heart in the way that educators do (2014).

McDermott adds an additional component, arguing that education is much too influenced by power and money (2016). Politics have greatly influenced the implementation of Common Core, which has received considerable backlash from the general public (McDermott, 2016). One study found that, "...53 percent of the public still supports Common Core State Standards—and 68 percent support the notion of common academic standards when the label 'Common Core' is not used. Still, many parents, educators, and advocates support what testing achieves" (Carroll, 2015, p. 3).

Croft et al. argue that some students, despite their intelligence, are simply not good test-takers (2015). Along with a myriad of other factors, this is why standardized testing and Common Core may not be valid educational tools. Perhaps if policies were written by educators rather than politicians, this would not be the case (Croft et al., 2015).

Standardized testing is wholly based on state standards that are studied and implemented throughout the school year. Carpenter (2012) suggests that standards and testing are necessary tools to increase student motivation. Holding students accountable has been shown to increase pressure, motivation, and competitiveness, which are all useful for student success (Carpenter, 2012). Not only can standards be useful for students, but they can be beneficial for teachers, as well (Buck et al., 2010). One teacher in favor of Common Core believes that, "...tests 'hold accountable' those teachers who are 'just there to get summers off and an 8-3 job'" (Buck et al., 2010, p. 53).

Despite the dissatisfaction with testing, Starr argues that testing is necessary to improve the system (2017). It helps educators and policy makers recognize the problems with not only testing, but standards and education as a whole. It can be beneficial so educators can move forward and improve the current system (Starr, 2017). As Starr states, “Standardized testing can help show that the system is broken, but in a sense, standardized testing is the system” (2017, p. 72).

Conclusion

After careful review of the research surrounding standardized testing, it can be concluded that however necessary it may be, it can be improved. Many agree that it is an important and even essential educational tool, but not without its shortcomings. Standardized testing simply does not assess all students, is often biased toward minority populations, is highly political, and has the potential to abolish creativity in the classroom. With significant work and extensive research, the system could be improved.

Chapter 3: Methodology and Procedures

Standardized testing has become a staple in schools across the country, beginning in elementary school. After reviewing the literature, previous research suggests that standardized test results are only accurate for a certain number of students. For example, research shows that standardized tests are designed for white, middle-class students who are strong academically. Results may not be as accurate for students who have alternative cultural backgrounds, students who are not strong test-takers, or students with different learning needs. In addition, there is little evidence that educators and the community support the focus on standardized testing. The purpose of this study is to determine whether educators feel that standardized testing is an accurate measure of student proficiency and growth. This chapter discusses the population for this particular study, as well as methods, procedures, data collection, and research questions.

Population

The population for this study was composed of students enrolled in the Education program at Milligan University. Milligan University is a Christian school located in Northeast Tennessee. The university is made up of about 1,300 students, 47% of which are male and 53% of which are female. The Education department, however, is predominantly female.

Sample

The sample for this study is comprised of teacher candidates currently in a student teaching or internship placement, and who are enrolled in the Education program. There are 89 undergraduate and graduate students in the Education program, 71 of which are female and 18 of which are male. There are 20 students total who are currently completing

a student teaching or internship placement. Students currently completing a student teaching or internship placement will be contacted via email, and participants who voluntarily respond will be interviewed. Teacher candidate participants will be interviewed individually to determine educator opinions on standardized testing. Responses will be recorded, then transcribed and analyzed to find common themes in responses.

Data Collection Instruments

The data collected in this study will be qualitative in nature and will primarily rely on teacher candidate interviews. Teacher candidates will be interviewed individually to determine common themes in educator opinions of standardized testing in schools. Interview questions will be designed to gain input on various facets of standardized testing. Questions seek to understand how the standardization of schools affects educators' classrooms, teaching styles, and student success. Interviews will be conducted via Zoom, and audio will be recorded then transcribed digitally.

Procedures

Before the onset of this study, participants will be provided with a copy of the interview questions as well as the informed consent form. Participants will sign and return the consent form before interviews begin, as this form explains that participation is completely voluntary and all personal identifying information will be kept confidential. In addition, the form states that there will be no compensation for participation in the study and there are no risks associated with participation. Participants will also be informed that they may withdraw from the study at any time.

This study was approved by Milligan University Internal Review Board (IRB) before the study began. The consent form and interview questions were also reviewed and approved and can be found in Appendix A and Appendix B.

Research Questions

RQ 1: Do teacher candidates feel that standardized testing accurately assesses their students' learning?

RQ 2: Do teacher candidates feel that there are better alternatives to standardized testing?

If so, what are these alternatives?

Chapter 4: Analysis

Standardized testing is the primary method of assessing all students in the educational system today. While it is principally used to collect student data, it is also used to track teacher effectiveness. There has been extensive research on standardized testing and its contributions to the educational system, but there has been little attention to whether educators feel that the scores are useful or necessary.

The purpose of this study was to determine the opinions of teacher candidates on the effectiveness and reliability of standardized testing. More specifically, this study was designed to understand whether teacher candidates feel that standardized testing accurately assesses all students, whether they believe that the classroom has changed with the implementation of Tennessee Academic Standards, and whether they believe there is a more effective alternative to standardized testing.

The analysis portion of this research will be discussed in three subheadings. First, data collection methods will be discussed, including the location of the study, demographics, and sample size of the participants. Next, findings of the study will be described using visuals, as well as detailed answers to each research question presented. Finally, a summary will be included to review all aspects of the study as described in Chapter 4.

Data Collection

For this study, four teacher candidates were interviewed individually. All teacher candidates are in the Education program at Milligan University, a private Christian school located in Northeast Tennessee. The university consists of roughly 1,300 students, of which 47% are male and 53% female. The participants in this study, however, were all female.

This particular group of candidates is currently completing student teaching or internship placements at elementary schools in Northeast Tennessee and have varying degrees of experience.

All candidates currently completing a student teaching or internship placement were contacted via email to request participation in the study. A total of four candidates responded, and participation was entirely voluntary; there were no incentives for participation in this study. Each candidate was interviewed via Zoom due to COVID-19 restrictions, and all interviews were recorded. Interviews were then transcribed verbatim by the researcher, and the researcher analyzed interview responses by thematic analysis of the transcription.

Findings

Assessment of Student Performance

Collection of Data. Participants discussed the benefits associated with standardized testing, one of which is the collection of data. Many participants cited this as the primary strength of standardized testing, commenting that data collection is more beneficial for teachers than for students or the educational system as a whole. Many participants agreed that, while standardized testing may not accurately assess or benefit all students, the data can be beneficial to teachers. Many agreed that “teachers benefit” from standardized test data, stating that it may be even more beneficial to teachers to keep state standards but abolish standardized testing.

Measurement of the Group. Several participants mentioned that standardized testing is beneficial solely because it is a method of measuring a large group of people at once. While this was listed as a strength by participants, it was also cited as a weakness.

One participant stated that standardized testing is, “one size fits all,” and asked the question, “Does every single student in the state need to be assessed in the same way?” Others mentioned that, because standardized testing measures so many students at once, it is not reliable for all learners.

Participants agreed that standardized testing cannot accurately measure all students at once, because all students learn differently. One participant stated, “I definitely don't feel like it captures the wide variety of students and learners. I feel like there's such a huge emphasis on teaching to different learning styles and teaching to students who have different learning needs, and I don't feel like standardized testing really supports that.” When discussing differentiation in the classroom and varied learning styles, another participant stated, “I feel like it's almost setting them up for failure.”

Others discussed that standardized testing may not have positive implications for students with different learning needs. A common phrase was “read-aloud students,” referencing students whose educational accommodations allow tests to be verbally read to them. One participant stated, “...when they go and hear all the questions, they're not going to remember what they heard for the story.” Others mentioned that, while standardized testing may test most students, it does not accurately assess English Language Learners or students in Special Education classes. Others discussed the implications for students who do not perform as expected academically, but who also do not meet the requirements for Special Education support. Some stated that data collected on this subset of students is the least reliable of all test data.

Time Management. Participants repeatedly mentioned time constraints associated with standardized testing. Some discussed their personal experiences with testing, and

others referred to current student teaching or internship placements. Many participants agreed that too much time out of the school year is dedicated to testing, often taking two weeks or more to navigate standardized testing and review in upper elementary grades. Others stated that the time used on standardized testing and review could be used for teaching new material. Instead, participants agreed that testing requires teachers to spend significant time teaching students how to analyze questions to successfully take standardized tests.

Cultural and Racial Bias. Participants agreed that, while standardized test questions may have been biased in previous years, positive changes have been made. Words commonly associated with this issue were “improvement” and “change.” Some participants felt that test questions had never been biased and continue to remain that way. One participant stated that standardized tests are, “... set up to benefit an American student,” and may have negative implications for English Language Learners.

Tennessee Academic Standards. Almost all participants stated that they see Tennessee Academic Standards in their current placements on a daily basis. Many participants mentioned that standards are posted in their current classrooms so both students and teachers can visibly see them. Common phrases included “lesson planning” and “visible in the classroom.” One stated that standards often appear in the form of “I can” statements. Others stated that they interact with standards daily during lesson planning. One participant commented, “I wouldn't say there's a lot of maybe verbalizing it, but I know that when I talk individually with teachers or in a group, the standards are what guide our instruction.”

Alternatives

Teacher Assessment of Student Performance. All participants stated that they believe teachers could accurately measure student performance, but they all discussed the potential difficulties in doing so. Nearly all participants agreed that, for teachers to do this accurately, there would need to be a set criteria for teachers to follow. Common words include “uniform,” “rubric,” and “standards.” One participant stated, “...even if you get rid of the standardized test, I think if you still keep standards, then that is a way for teachers to measure student growth.”

Necessity of Standards and Testing. All participants agreed that at least some aspect of standardized testing is necessary to the educational system. One participant described the current system as a “necessary evil.” Others stated that, while standardized testing may not be essential, standards are. They agreed that there still needs to be a predetermined system for teachers to measure their students’ growth. One participant concluded that testing is useful and necessary for secondary students but not for elementary students. This participant suggested that elementary students may not understand the importance of standardized testing and stated that younger students have no “forward thinking.”

Summary

The first research question, “Do teacher candidates feel that standardized testing accurately assesses their students’ learning?” was answered through thematic analysis of the participants’ interview responses. Participants indicated that, overall, standardized testing does not accurately assess students’ learning. They concluded that benefits to standardized testing include data collection for teachers, measurement of the whole group,

and standards to guide instruction. Measurement of the group, however, was also cited as a primary weakness. Many questioned whether the educational system even needs a way to measure a large group of students at once. All participants agreed that some students are accurately assessed by standardized testing, but because of the differences in learning styles and needs, the data is not accurate for all students.

The second research question, “Do teacher candidates feel that there are better alternatives to standardized testing?” was also answered using thematic analysis of interview transcriptions. Teacher candidates generally concluded that it would likely not be possible to introduce a better alternative to standardized testing. While participants agreed that the current system of standardized testing needs revision to be effective, they were not sure that it would be possible to change the system completely. Some suggested that state standards should remain while testing should not. All participants agreed that teachers can assess their students’ learning, and some believed that teachers may be able to assess student proficiency better than standardized testing. Almost all participants suggested, however, that teachers would only be able to accurately do this if provided a rubric, standards, or other set criteria. It was concluded that, ultimately, standardized testing is necessary to the system and should not be changed at the present time.

Chapter 5 will be a discussion of the study and its findings. Both a summary and interpretation of the findings listed in Chapter 4 will be included. The limitations of the study will also be discussed. Recommendations for future research will be addressed, followed by a conclusion.

Chapter 5: Discussion

Summary of the Findings

The results indicated that standardized testing, while imperfect and in need of revision, is necessary to the educational system. Participants stated that standardized testing does not accurately measure all students and only measures students who know how to test well. Participants described strengths of standardized testing as, primarily, data collection of a large group of people at once. Most participants agreed that it is necessary to measure large groups of students at once, but also suggested that standardized testing does students a disservice. Results also indicated that teacher candidates feel that standardized testing does not support differentiation. Because students have unique learning styles and have different strengths, standardized testing does not accurately measure everyone. While results may be reliable for some students, there are many students who are being overlooked because they do not benefit from standardized testing. Specifically, participants agreed that students who need accommodations, such as Special Education students, are not accurately assessed. Participants agreed, however, that minority students are fairly represented, and standardized test questions are not culturally or racially biased.

It was also found that Tennessee Academic Standards are most often seen visually in the classroom and in lesson planning. Standards are used to guide instruction, and they generally benefit teachers in doing so. Teacher candidates agreed that there needs to be an alternative to standardized testing, but standards should remain. While participants stated that standardized testing should be altered or abolished, they agreed that it would be nearly impossible to implement an alternative. It was concluded that the education system relies too heavily on standardized testing to execute changes.

Interpretation of the Findings

Student Assessment

Bower (2016) found that standardized testing does not support or address student creativity. Although testing is standardized, students, teachers, and learning environments are not (Neill & Medina, 1989). The results of the current study supported these ideas; teacher candidates feel that standardized testing does not account for student, teacher, or classroom differences. Other researchers indicate that, aside from students with varied learning styles, standardized test data is not accurate for students with test anxiety or who do not test well (Croft, Roberts, & Stenhouse, 2015). Results of the current study support this idea, as all participants cited that they personally experience test anxiety, and they do not feel that tests show their full potential. Many indicated that standardized test results simply show who is good at test-taking and who is not.

Elementary classrooms are even more unpredictable, because students are still developing skills on how to be successful as learners (Bower, 2016). Previous research stated that, because of these variations, standardized testing results are not reliable for everyone (Longo, 2010). Because it is such an integral part of the educational system, however, it has been posited that it is necessary for the system to work (Starr, 2017). The results of this study support this idea, as data shows that teacher candidates do not feel the current system could function without standardized testing.

Many believe that the implementation of Common Core, or Tennessee Academic Standards in Tennessee, is what shifted the focus in the educational system to the test rather than the student (Ferguson, 2015). It is argued that standardized testing has sparked a change in education toward the importance of data collection, which inherently

ignores all other facets of learning (DeWitt, 2013). The results of the present study show that teacher candidates generally agree with this statement, stating that schools are forced to focus on test data results rather than students themselves. Also discussed was the stress that data puts on both teachers and students, with most candidates indicating that data collection should not be the educational system's primary concern. DeWitt (2013) stated, "We can be driven only by reliable data if we are truly going to help our students. Forcing our students to sit for six hours of exams over a two-week period does not result in good data" (p.191). Participants in the present study alluded to this exact idea, stating that data that comes from this type of environment cannot be relied upon.

Standards exist to guide teacher instruction so that students can perform as expected on standardized tests. Studies show that one strength of standardized testing is that standards provide teachers with a way to measure student proficiency (DeWitt, 2013). The results of the present study indicate that teacher candidates support state standards and feel that teachers benefit from them. Standards can be used to guide instruction, provide teachers with a framework for the schoolyear, and measure student growth.

Minority Students

Studies have shown that, statistically, minority students perform lower on standardized tests than white students (Ford & Helms, 2012). Since the implementation of Common Core and Tennessee Academic Standards, there has been an even greater decline in test scores of minority students (Albers, Dooley, Flint, Holbrook, and May, 2016). There are different theories as to why this is the case, but one suggestion is that there is bias in the general population against minorities (Mendoza-Denton, 2014). Essentially, the problem does not begin with standardized testing itself, but with the opinion of the general

population (Mendoza-Denton, 2014). This creates an inherent bias in classrooms and on standardized tests, with many test questions being written in a way that favors white students (Ford & Helms, 2012). Many test questions require a base level of background knowledge, and these questions are often designed for students with a white, middle-class context (Neill & Medina, 1989). In the present study, all participants agreed that they do not believe standardized test questions are currently culturally or racially biased. Though they believed there has been bias in previous years, they agreed that is not a problem in the current system.

Previous research suggests that standardized testing should remain, but test questions should be significantly altered and rewritten to equally favor all students (Albers et al., 2016). Neill and Medina suggest that all students are discriminated against on testing in one way or another because of the lack of consistency in student learning styles, test environments, and teaching styles (1989).

Standardized Testing Effects on Teachers

Previous research indicates that the implementation of standards and standardized testing has prevented teachers from having freedom in the classroom (Zuberi, 2015). Teachers not only must follow standards and ensure that students are prepared for the test, but they also must teach test-taking strategies so students will be successful in interacting with the material (Zuberi, 2015). This takes significant time out of the schoolyear that could be used for instruction of new material. In the present study, participants agreed that teaching test-taking strategies, along with the time spent taking the tests themselves, takes too much time out of the schoolyear. Teacher candidates

indicated that more time should be dedicated to teaching new material throughout the year, rather than having to spend so much time teaching students strategies for test-taking.

Participants in this study felt that state standards do not affect teacher autonomy in the classroom. Instead, participants indicated that standards provide teachers with a starting point that they can build upon. Previous research supports these ideas, with one study finding that many teachers feel that standards provide a framework for the school year and that test data is helpful for both students and teachers (Buck, Ritter, Jensen, & Rose, 2010). Teachers in the aforementioned study felt that state standards and testing do not limit creativity or teacher autonomy in the classroom (Buck et al., 2010).

Alternatives

Some researchers suggest that teachers can measure their students' proficiency better than tests can (Missall, Hosp, Hosp, & Meisinger, 2019). According to Missall et al. (2019), test scores should remain, but teacher input should be a deciding factor in scores. In the present study, participants generally agreed with this idea. Participants stated that teachers could absolutely measure student ability better than tests, but there would still need to be a rubric or guidelines to do so. Missall et al. found that standardized tests are better at determining nonproficiency, but teachers are more successful at determining proficiency (2019).

Previous studies indicate that, despite public backlash surrounding standards and standardized testing, "...53 percent of the public still supports Common Core State Standards...many parents, educators, and advocates support what testing achieves" (Carroll, 2015, p. 3). Participants in the present study generally agreed, stating that testing is necessary to the system and provides data that holds both students and teachers

responsible. Buck et al. (2010) stated, “...tests ‘hold accountable’ those teachers who are ‘just there to get summers off and an 8-3 job’” (p. 53). Because of this, researchers suggest that testing is necessary to the education system today (Starr, 2017). Test data helps policy makers, standards, teachers, and education as a whole, and ultimately works to improve the system (Starr, 2017).

Limitations of the Study

The first limitation listed in Chapter 1 was that teacher candidates may not be aware of how academic standards are present in schools. This did not appear to be an issue, however, as all participants have had extensive experience with both standards and standardized testing. All were aware of the impact it has had on the system, and all had previously taken standardized tests themselves. Many had experienced testing within their current placements, and all had encountered standards while working in the classroom.

One limitation that remained throughout the study was that this study was limited to a single geographic location at a single university, and it may not represent the opinions of teacher candidates everywhere. The sample size was small, as only four candidates were interviewed in total, and all were females of similar ages.

Recommendations

1. This study should be replicated with teacher candidates across the state and the country, including male and minority participants of various ages. This would improve reliability of the results and would more accurately describe the opinions of teacher candidates.

2. This study should also be replicated to include teachers, parents, school administrators, school boards, and policy makers. This would improve reliability of generalizations that may have been made in this study.
3. The system needs revision before continuing to rely on standardized testing. While standards provide a framework for teachers, standardized testing fails to recognize different learning styles or students who need accommodations. It is unreliable as a measurement tool for students and needs to be changed to accurately assess everyone.
4. Teachers should have the opportunity to provide input about individual students to accompany standardized test scores. Having a more complete picture of the student helps put their scores in context.

Conclusion

The purpose of this study was to understand the opinions of teacher candidates to determine whether there is a more effective alternative to standardized testing. Results indicated that teacher candidates generally think that standardized testing and standards are both necessary to the system but need revision to accurately measure all students. Alternatives to standardized testing should be considered by educators, administrators, and policy makers. Student proficiency is only accurately measured when students' differences and learning styles are taken into consideration, and standardized testing fails to measure these variations.

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Appendix A

Interview Questions

- 1) How long have you been student teaching?
 - What grade/grades have you taught?
- 2) How do you see Tennessee Academic Standards in your placement on a daily basis, aside from explicitly stating them to students?
- 3) What is your personal experience with standardized testing?
 - Have you experienced standardized testing within your placement?
- 4) We are going to talk about some strengths and weaknesses of standardized testing.
 - What benefits do you see to standardized testing?
 - What weaknesses do you see?
 - On a scale of 1-10, with 10 being the most effective, how would you rate the current system of standardized testing?
- 5) Do you feel that *all* of your students benefit from standardized testing? Why or why not?
- 6) Do you feel that standardized test questions are culturally or racially biased? Why/why not?
- 7) Do you feel that, without standardized testing, teachers could accurately assess student performance?
 - If so, how would you personally measure student proficiency?
 - Do you think there is a better alternative to our current system of standardized testing?
 - If no, why is our current system better than other options?

- If yes, what is it?

8) Do you think state standards and standardized testing are necessary? Why or why not?

*Do you have any questions for me?

*Is there any aspect of standardized testing you wanted to address that you were not asked about?

Appendix B

Consent Form

You are invited to take part in a research study that is seeking to understand teacher candidates' feelings about standardized testing. The researcher is inviting teacher candidates from Milligan University seeking elementary licensure to take part in the study. This form is part of a process called "informed consent" that allows you to understand this study before deciding whether to participate.

This study is being conducted by Miriam Stout, who is currently a graduate student at Milligan University and in Internship I.

Background Information:

The purpose of this study is to understand how teacher candidates truly feel about standardized testing and state standards.

Procedures:

If you agree to be in this study, you will be asked to:

- Participate in a one-on-one interview via Zoom
- Agree to be recorded via Zoom

Sample interview questions are as follows:

- 1) How do you see Tennessee Academic Standards in your placement on a daily basis, aside from explicitly stating them to students?
- 2) On a scale of 1-10, with 10 being the most effective, how would you rate the current system of standardized testing?
- 3) Do you feel that all of your students benefit from standardized testing? Why or why not?
- 4) Do you feel that, without standardized testing, teachers could accurately assess student performance?
- 5) Do you think there is a better alternative to our current system of standardized testing?

Voluntary Nature of the Study:

This study is completely voluntary. No one at Milligan University will treat you differently if you decide not to participate in the study. If you decide to participate in the study now, you can still change your mind later. You may stop at any time.

Risks and Benefits of Being in the Study:

Participating in this study would not pose a risk to your safety or wellbeing.

This study will provide information about standardized testing that has not previously been addressed. There has been extensive research on the subject, but there is no previous research that addresses the opinions of teacher candidates, which is potentially the most important component of the topic.

Payment:

There is no compensation for participating in this study.

Privacy:

Any information you provide will be kept confidential. The researcher will not use your personal information for any purposes outside of this research project. The researcher will not include your name or anything else that could identify you in the study. The identities of participants will only be known by the researcher and will not be shared with anyone else. Data will be kept for a period of at least 5 years, as required by Milligan University.

Contacts and Questions:

You may email Milligan IRB at irb@milligan.edu if you have any concerns about your rights regarding participation in the study. You may contact the researcher at mrstout@my.milligan.edu or the research advisor, Mark Dula, at medula@milligan.edu if you have questions or to obtain results of the study.

The researcher will provide a copy of this form to keep for your records.

Statement of Consent:

I have read the above information and I feel I understand the study well enough to make a decision about my involvement. By signing below, I understand that I am agreeing to the terms described above.

Printed name of participant

Date signed

Signature of participant

Signature of researcher