Preservice Teacher Preparation for Common Core Standards and Assessments: A Pilot Study

Holly Pae, Ed.D.
University of South Carolina Upstate

Greta G. Freeman, Ed.D.
University of South Carolina Upstate

Pamela D. Wash, Ph.D.
Winthrop University

Abstract

Teacher preparation programs face great challenges in ensuring their graduates are prepared for the demands of today's classrooms. The authors explore how teacher accountability has evolved based upon federal legislation leading to adoption of the Common Core State Standards (CCSS). Recognizing that future teachers will be held accountable for preparing students for CCSS, a test based on the standards was used to determine what this type of evaluation means to future teachers. Teacher candidates' impressions of a sample CCSS-based assessment are investigated using a test developed by the Smarter Balanced Assessment Consortium (SBAC). Twenty-nine teacher candidates completed the fifth-grade Language Arts exam. Opinions of the test were shared on a written survey followed by a focus group discussion. While many of the candidates felt the test was fair and grade appropriate, many shared that there was too much reading and writing. Other results include both strengths and weaknesses of the test.

Keywords: **preservice teachers, common core standards, Smarter Balanced, assessment, teacher education.**

The executive director, Joe Willhoft, of the Smarter Balanced Assessment Consortium (SBAC) announced in April 2014 (Willhoft, 2014, Introduction, para. 1) that over two million students have completed the Smarter Balanced field test aligned to the Common Core State Standards (CCSS). The SBAC, a state-led consortium involved with educators, researchers, and policymakers, and the Partnership for Assessment of Readiness for College and Career (PARCC), a group of 12 states and the District of Columbia, are the two major consortia funded by the U.S. Department of Education, providing assessments to the majority of the 45 states and the District of Columbia adopting the CCSS. Forty-five states have fully adopted the CCSS and Minnesota has adopted the English Language Arts standards. School districts in adoption states are planning for full-implementation of assessments based on the CCSS beginning in Fall 2014 and the consortia are working diligently to determine needed changes and revisions to the current tests. School district administrators are working meticulously to make sure their teachers are well-informed of the new standards, and teacher educators must follow in preparations to support teacher candidates' knowledge of the new standards and assessments.

While the adoption of educational standards is not a new phenomenon in American public schooling, the construction of the CCSS changes the focus of curricula by providing a comprehensive strategy to make more students fully ready for college and careers. This is a step in the right direction given that in 2012, 52 percent of all high school graduates took the ACT, but only 25 percent of test takers reached the college readiness level in all four areas tested (English, reading, mathematics, and science) (ACT, 2012). The CCSS may not do some things that many of us in post-secondary education would like to see (e.g. targeting a fuller scope of outcomes in the sciences, humanities, or the arts). Yet they support notions associated with liberal education, to prepare students to think critically and possess broad analytic skills. Fundamentally, the CCSS present a shift away from previous standards, which tended to be designed independently at the elementary, middle, and

high school levels (Conely, 2014; Stage, Asturias, Cheuk, Daro, & Hampton, 2013). Instead the CCSS are longitudinal in scope, designed down from the goal of college and career readiness. At the same time, they establish expectations for student performance beyond one-dimensional approaches of learning skills or content to having them engage in higher order thinking. Arguably, teacher preparation programs may need to adopt a more interdisciplinary approach to training teachers in assisting them and their future students to acquire the necessary "literacy skills and understandings required for college and career readiness in multiple disciplines" (National Governors' Association Center for Best Practices and Council of Chief State School Officers [NGA/ CCSSO], 2010, p. 3).

On a pragmatic level, it is essential that teacher educators are aware of the test format, types of questions, and overall expectations. Providing this critical information to teacher candidates by teacher educators will support the school districts and prepare candidates as they enter classrooms for pre-student teaching, student teaching, and beginning teaching experiences. This paper describes one teacher education program's attempt at increasing instructor and teacher candidate knowledge of the CCSS and related assessments through practice tests, written surveys, and focus group discussion.

Background

Almost one-half of a century ago President Lyndon B. Johnson signed into law the Elementary and Secondary Education Act (ESEA, 1965). ESEA claimed it would "strengthen and improve educational quality and educational opportunities in the nation's elementary and secondary schools" (p. 27). The goal of the ESEA was to guarantee that the nation's disadvantaged children would be provided equal and optimal learning opportunities. Because of this law, millions of dollars were now being provided by the federal government to the educational system and schools in America. ESEA was "amended four times between 1965 and 1980," followed by further demands of "higher academic standards" and improved teacher preparation (Thomas & Brady, 2005, p. 53).

In 1983, the first serious accusation that the United States education system was broken came with the release of *A Nation at Risk* (U.S. National Commission on Excellence in Education). This report, claiming that U.S. students were "never first or second" and sometimes "last" on international achievement tests, highly illiterate, falling in average achievement scores, and gaining in the need for remediation in basic skills, frightened education leaders and the public into a reform frenzy (p. 8). An urgent call to action was suggested by the authors of the report followed by further study and recommendations of the Commission. Soon after the publication of *A Nation at Risk*, academic requirements for graduation and teacher certification requirements increased in many states (Thomas & Brady, 2005, p. 54).

Following *A Nation at Risk*, the late 1980s and early 1990s began to shape what is known as the Standards-Based Education Reform movement (SBR). "Standards" defined by Hamilton, Stecher, and Yuan (2005), are "what students should know and be able to do" (p. 2). These researchers described standards-based reform as increasing "academic expectations for students," "assessment of student achievement," and "accountability provisions" (p. 2). Soon, due to public demand for higher academic achievement (Pellegrino, 2004) and concerns for America's standing (in comparison to other countries) in the area of academic achievement (U.S. National Commission on Excellence in Education, 1983), more assessments specifically for determining achievement of students in elementary and secondary schools began to materialize. Pellegrino (2004) calls the 20th century "the century of mental tests, when educational assessments came into widespread practice" (p. 6). Kendall (2011) claimed that prior to the 1990s K–12 teachers were more about "using what they liked in the textbook and ignoring what they didn't" than following a prescribed standard curriculum (p. 3). This began to change in the late 1990s. The closer we came to the turn of the century, the more standardized tests became the norm and classroom teachers were held to teaching the standards because they knew their students would be tested on them.

In 2001 amendments were made to the Elementary and

Secondary Education Act (ESEA) and it was renamed the No Child Left Behind Act (NCLB, 2002). No Child Left Behind was signed into law on January 8, 2002. Thomas and Brady (2005) state that NCLB is similar to ESEA; however, the reauthorized act would "raise the bar of academic standards and hold state and local educational agencies accountable for student achievement" (p. 55). One goal of NCLB was for all students to be proficient in reading and math by 2013-2014 (Dee & Jacob, 2011). Although America was progressing in its education reform initiatives, a 2005 review of standards-based reform confirmed there was still "room for improvement" (Hamilton, Stecher, & Yuan, p. 3). Four years after the Hamilton report "governors and state commissioners of education from across the United States formed the Common Core State Standards Initiative (CCSSI)" (Kendall, 2011, p. 1). "The principal purpose of the Common Core State Standards Initiative is to identify for all stakeholders the knowledge and skills that students must acquire to succeed in college and career" (Kendall, 2011, p. 27).

With these new standards, which are said to have "higher expectations" (Maunsell, 2014, p. 65) than previous state standards, come new assessments to determine if those standards are being met. As soon as the CCSSI began implementation in various locales around the country, PARCC and SBAC began developing assessments supporting the standards. Doorey (2014) states the Common Core assessments are "intended to ensure that U.S. high school graduates will have the fundamental skills they need to begin credit-bearing coursework in postsecondary institutions or career-training programs" (p. 60).

Herman and Linn (2014) add that we must prepare "students in the United States to be internationally competitive and prepared for college and career" (p. 36). They further claim that all four Depth-of-Knowledge levels (Webb, Alt, Ely, & Vesperman, 2005) are met in both the PARCC and SBAC assessments, unlike standardized assessments of the past that focused mainly on levels one and two. "Both the PARCC and Smarter Balanced assessments feature technology-enhanced items as well as extended-performance tasks that open up new possibilities for assessment" (Herman & Linn,

2014, p. 36). They claim "the new assessments of those standards fully integrate content with higher-order thinking" (p. 36).

Statement of Purpose

Liebtag (2013) states, "In many ways implementation of the CCSS will raise the bar for what is expected of current and future teachers" (p. 62). There are numerous critics of standardized assessment who are currently asking questions specific to the CCSS assessments and related to equity in regards to necessary technology (Gullen, 2014; Saine, 2013); fairness and sensibleness of questions, bias of content, ability to determine reading ability, valuable information outcomes for teachers (Ohanian, 2014); and overall success (Sarles, 2013). There are debates swirling around the CCSSI and the future of Common Core is uncertain. Piehler (2014) recently announced that South Carolina Governor Nikki Haley signed a bill that would "require the state to drop the Common Core State Standards." Placing politics aside as well as controversies surrounding change in standards and school assessments, teacher educators must prepare teacher candidates for these changes. Teacher candidates must be aware of curriculum modifications as well as controversies and discussion surrounding these changes so they will be prepared as new classroom teachers.

Maunsell (2014) discusses the importance of communication during times of change such as these. "…Communication must be easily understood by stakeholders and tailored to the intended audience" (p. 64). Teacher candidates must be given background information on the standards movement followed by explicit information on new standards and assessments. "Effective communication isn't always easy but it is critical to success" (p. 65). We wish for our teacher candidates to be successful as preservice teachers and as practitioners.

Our goals for this study were to 1) share available Smarter Balanced Assessment information with our education majors to help them in their understanding of the new standardized assessments related to the CCSS; and 2) to determine both quantitatively and qualitatively teacher candidates' views of these sample/practice

assessments. Our intentions were to use this as a pilot study for future research related to Common Core associated assessments.

Method

Sample and Participant Selection

To elicit volunteer participation in the study, the researchers emailed the details of participant requirements to all teacher candidates enrolled in the Elementary and Special Education Programs' methods courses as well as all teacher candidates enrolled in a children's literature course. This resulted in the use of a convenient sample consisting of nineteen elementary education majors and ten special education majors. All twenty-nine participants were second semester juniors or first semester seniors in their respective degree programs. This level of student has completed a minimum of 60 hours of degree coursework, maintained an overall GPA of 2.75, and has been accepted in to the School of Education's Professional Program.

Each of the teacher candidate participants were informed that they would be taking a 60-minute assessment similar to those taken by elementary students and based on the CCSS. They were also informed that there would be follow-up questions and discussions based on the assessment.

Instrumentation

This study employed both quantitative and qualitative methods that included a multiple-choice and short answer fifth grade English Language Arts assessment (obtained from the Smarter Balanced website and modified [due to participants taking the test in a written format] by deleting video and audio enhanced questions); a written survey developed by the research team; and a focus group interview, with questions also developed by the research team. Specifically, data were gathered to examine the teacher candidates' views of the sample assessment based upon their experiences of completing the test.

Test

The assessment is a fifth-grade Language Arts exam developed by the SBAC. This instrument is made available to the public and can be exported from their website. The SBAC provides the assessments at no cost in order to give educators an opportunity to complete sample test items that are based on the CCSS. This fifth grade Smarter Balanced assessment consisted of twenty-one questions. Eight questions (38%) were essay and/or short response questions worth a maximum of 2 points each. The remaining thirteen questions (62%) were multiple-choice and worth a maximum of 1 point each. A perfect score on the assessment would yield an overall score of 29 points.

Because our state is a member of the SMARTER Balanced Assessment Consortium (SMARTER), we selected this assessment over the test offered by PARCC, of which our state is not a member. Both the PARCC and SMARTER systems require students to demonstrate their skills in reading, writing, and mathematical reasoning on higher-order tasks, including research and essay-writing, in order to measure students' readiness for college and careers. Both are also computer-based. The SMARTER assessment, however, is also computer-adaptive—a method of test administration that adjusts in real time an assessment's level of difficulty based on individual students' responses. PARCC assessments adhere to a single form for all students (Tamayo & Aspen, 2010).

Survey

The survey contained six open-ended questions. Its purpose was to individually determine the test-takers' impression of the assessment. The survey thereby served as a strategy to describe the frequency of perceptions shared, explore relationships between different responses, and delineate the reasons for particular opinions (Schumacher & McMillan, 2001). Because the survey was self-administered, it eliminated the possibility of interviewer bias.

Focus Group Interview

Interviews are in-person conversations from which the

researchers "elicit information or expressions of opinions from another person (Putt & Springer, 1989, p. 142). The purpose of the focus group interview, conducted at the conclusion of the sample test and survey, was to provide a vehicle for exploring further the respondents' explanations. The interview protocol consisted of three questions. Unlike the survey, this method of data collection yields more open-ended responses and sometimes rich discourse. Since the interview was conducted in a group setting, the participants could also respond to others' input. This allowed the researchers to create a dialog in which the participants could pursue meaning about a perspective in greater and richer detail. All responses were audio-taped and recorded using the note-taking procedures described by Dillman (1978) and Spradley (1979).

Procedure

Prior to the test session, the researchers individually completed the same assessment provided to the teacher candidates. The online assessment was photocopied for the participant testing session after omitting the answers and computer-essential questions.

The participants completed the three components of this study together in one session. They 1) completed a sample Smarter Balanced assessment (5th grade ELA); 2) answered questions on a survey related to their experience; and 3) participated in a focus group discussion following the assessment and survey completion.

The teacher candidates arrived at a pre-planned, theater-style classroom at the researcher's university and documented their participation and attendance on a numbered log. Each participant was given a test with a number that corresponded with the number on the participation log sheet. As a group, the teacher candidates were given instructions that they would have 60 minutes to complete the assessment. They were also informed the assessment was a portion of other assessments being shared online and field-tested across the U.S. After the participants completed the survey, the researchers then conducted the group interview. The session took place for two hours.

Data Analysis

Each researcher was randomly assigned a series of tests to grade. Using the scoring rubrics and guidelines established and provided by the SBAC, the appropriate scores were determined and recorded in an Excel spreadsheet. The results were recorded using the number-identifier recorded on each test. Subsequently the grader could not identify the test-taker. The researchers also graded a second series of randomly assigned tests to establish inter-rater reliability and confidence that the score earned was valid.

The tests scores were tabulated for each item and for each teacher candidate. This procedure allows one to conduct an item-by-item analysis to determine patterns of performance across the participants' scores as well as a summative analysis of the participants' total scores.

The survey and group interview responses were sorted into a spreadsheet by question. The researchers read the responses to identify patterns. These emerging patterns were coded. The items for the identified themes were then organized and analyzed again in terms of frequency and difference.

Results

Outcome of Smarter Balanced Assessment

The fifth grade Smarter Balanced assessment consisted of twenty-one questions. Eight questions on the assessment (38%) were essay and/or short response questions worth a maximum of two points each. The remaining thirteen questions (62%) were multiple choice worth a maximum of 1 point each. A perfect score on the assessment would yield an overall score of 29 points.

Twenty-nine preservice candidates completed the assessment in a scheduled 60-minute time period. The overall test score average for all preservice candidates after converting all scores to a 100-point scale was 78.2%. Five candidates (17%) scored in the 90-100% range, nine (31%) scored in the 80-89% range, ten (34%) scored in the 70-79% range and five (17%) scored below 70%. The mean of the eight short response questions was a 1.67 on a 2-point scale, equating to an 84 on a 100-point scale. The mean

of the thirteen multiple choice questions was a .79 on a 1-point scale, equating to a 79 on a 100-point scale. Ironically, the candidates responded as readers will note in both the written survey and the focus group results for this study, that candidates viewed the assessment as having more required writing than standardized assessments they completed during their K–12 experience.

In regards to the candidates' sample assessment results, it should be noted that five candidates of the twenty-nine did not respond to all questions, thus, lowering their overall scores and potentially skewing the data. While the overall results of their assessment scores were varied, it was important for the candidates to have first-hand experience with simulated test conditions in order to provide greater insight regarding this potential K–12 assessment instrument.

Outcome of Survey

Following the completion of the Smarter Balanced assessment, candidates completed a six-question open-ended survey. Using a dichotomous data analysis approach, themes for responses to each question were determined. Responses to question one, *Describe your overall impression of the assessment*, revealed that candidates believed the assessment to be fair and appropriate for fifth grade students (34%); that the assessment consisted of too much writing making it too long (14%); that the assessment consisted of different genres and required skills (10%); and that the directions need to be revised—that some directions were too ambiguous (10%).

Candidate responses to question two, *Describe any perceived strengths of the assessment*, revealed that 28% believed the assessment strengths consist of varying question types allowing for multiple types of responses as well as assessing both writing and reading comprehension; that the assessment was concise—just the right length (17%); and that the prompts and reading passages were interesting and relatable (17%). On question three, *Describe any perceived weaknesses of the assessment*, the candidates responded that too much reading (24%) and too much writing (24%) were assessment weaknesses along with tricky wording and ambiguous

test questions (21%). The following question, *Was there any particular question or question type you found more difficult?*, revealed that candidates found questions with more than one answer or "select the best answer"-type questions difficult (31%). In contrast, candidates responded to the question, *Was there any particular question or question type you found too easy*, that defining a word used in a passage or correcting a sentence was too easy (21%) or stated that "none" of the questions were too easy (17%). Lastly, 62% of the candidates responded that they believe fifth grade students will perform *average* and 34% believe students will perform *excellent to above average* on this assessment. This final data reaffirms the candidates' initial reflection on the assessment - that it appears to be fair and appropriate for fifth grade students.

Outcome of Focus Group

Three questions were posed orally to the full group of twenty-nine preservice candidates following the administration of the Smarter Balanced assessment and the written survey. These questions were: 1) What skills and strategies would you need to take this test?; 2) Was this assessment fair and free of bias?; and 3) Having taken this test, will it change your teaching? The analysis of the transcription of the focus group conversation revealed that the candidates thought fifth grade students need to know how to read on grade level, have excellent writing and reading comprehension skills, have time management skills, and know how to use a computer. The candidates expressed concern for students having to take this assessment on the computer and how accommodations would be made for students with individualized education plans (IEPs). Additionally, the concern for being able to navigate back to look over responses or skipping ahead to areas the students felt they were more comfortable with was expressed.

The second question posed to the group targeted their perceived fairness and objectivity of the assessment. It was clear from the students' responses that this topic is a potential area of weakness. For example, the candidates wondered if a question on the assessment dealing with the topic of hermit crabs was "biased"—would

all fifth graders know about hermit crabs? The candidates further expressed that perhaps the assessment being administered on the computer was not fair since not all students have the same amount of experience using a computer.

Lastly, candidates responded that if South Carolina does indeed elect to use this assessment to measure competency of the CCSS in K–12 classrooms, they will have to ensure that their students are comfortable writing open-ended responses and that reading passages are used frequently as an assessment tool.

Implications

Preservice candidates, overall, view the fifth grade Smarter Balanced assessment to be fair and grade appropriate (34%). However, the candidates stated that the assessment contained too much writing and too much reading for one assessment time period, but responded positively that the assessment contained varied question formats including short answer, complete the chart, circle the correct word, etc. When asked how South Carolina fifth graders will perform on this assessment should the state elect to adopt this instrument, 96% of the candidates stated that the students would perform average or above, reinforcing their view that this assessment is fair and grade appropriate.

With an overall N of twenty-nine participants, the researchers are careful not to generalize the results. However, the data do reveal that teacher candidates are concerned about the proposed standardized assessment and its overall construction (too much reading and writing). The participants did acknowledge the presentation of diverse question formats and varying levels of questioning, however, indicating that this would "be great for different learners." The participants went as far as indicating that they believe elementary students in South Carolina public schools will perform average or above, thus, revealing their confidence in perhaps their own teaching or the teaching of the current practicing teachers working with S.C. students.

Discussion

Teacher preparation programs need to assure that their training best prepares teacher candidates to enter our K–12 classrooms where CCSS and high-stakes testing are in place. According to the results of this small pilot study, it is clear that reading and writing in the content areas needs to be emphasized in methods courses and that technology needs to be seamlessly integrated into both instruction as well as formal assessment practices to assist in candidate preparation.

As Conley (2014) has already suggested, "many teachers may find it challenging to expect students to use evidence to support their assertions, to read informational texts, to think more deeply and systematically, to demonstrate a better command of language" (p. 12). Teacher training programs can overcome this hurdle by integrating the practices of teaching reading, writing, speaking, listening, and language in and across all disciplines or content areas. Moreover, the teacher preparation programs often separate methodology classes by content area and, therefore, employ different terminology and questioning techniques for each subject. The CCSS terminology aligns with Bloom's (1956) Taxonomy, which represents different levels of cognition and consists of the following stages of thinking: knowledge, comprehension, application, analysis, synthesis, and evaluation (Giouroukakis & Cohan, 2014). This common language promotes an interdisciplinary approach of teaching. Minimally, the CCSS standards' use of Bloom's levels of cognition provides a common set of expectations for all subject areas that assist teachers in planning for successful instruction.

While South Carolina, where this study took place, is still in debate over which assessment to move forward with in 2014-2015, it is clear that teacher preparation institutions need to be poised to adjust their strategies to meet the needs of teacher candidates. As states move to full implementation of the CCSS and adopt national standardized assessments, additional research is essential to measure their impact at the K–12 and teacher preparation levels.

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Holly Pae, Ed.D., is an associate professor in the School of Education at the University of South Carolina Upstate. She is the Learning Disability Program Coordinator of Primary Investigator for a 325T Program Improvement Grant awarded by the United States Department of Education Office of Special Education.

Greta G. Freeman, Ed.D., is an associate professor in the School of Education at the University of South Carolina Upstate and teaches in the elementary undergraduate and graduate programs. Her research interests include areas related to literacy, bullying, and current issues and trends in teacher education.

Pamela D. Wash, Ph.D., is an associate professor in the College of Education at Winthrop University and serves as the Department Chair of Counseling, Leadership, and Educational Studies. Her research interests include science education and instructional technology.