Common Core, Socioeconomic Status, and Middle Level Student Achievement: Implications for Teacher Preparation Programs in Higher Education

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Abstract
This paper provides a history of the standardized testing and accountability movement, the curriculum standards attached to the accountability movement, and the attempted shift to common core. Student poverty and its impact on student achievement are the focus of this paper. Recognizing the impact of poverty on student achievement as measured by standardized tests the authors question the explicit practices of teacher preparation programs in preparing teacher candidates to work with students of poverty, particularly at the middle level.

Keywords: socioeconomic status, middle level learner, curriculum, accountability, assessment, common core, teacher preparation

1. Introduction
In a time of increased accountability measures and volatility of educational policy, public and legislative bodies have become increasingly focused on student achievement as reported in statewide standardized test scores. Having all students take the same standardized test is akin to saying that we have “standardized” children and that we all expect them to learn in the same ways and exhibit this learning in the same way—through these standardized assessments. What these “one-size-fits-all” assessments fail to take into consideration, however, are the varied backgrounds of our students and the developmental needs of the middle grades learner. Many factors play an important part in a student’s academic success, like special needs or environmental factors; this study focused on students’ socioeconomic status and how this affects student achievement. This article discusses the implications of this research on current and future middle level teacher preparation programs in higher education at the undergraduate level.

2. Educating Middle Level Students
According to the Association for Middle Level Education (2010), it is incumbent upon middle level educators to provide an education for young adolescent learners that facilitates students making “critical and complex life choices [that] form the attitudes, values, and dispositions that will direct their behavior as adults”; in order to do that, one must provide a rigorous, relevant, and balanced curriculum that engages students in conversations that prepare them to engage productively in a highly mutable, complex society (1). Because middle level students undergo more physical changes from ages 10 to 15 than any other time in their childhood other than infancy, it is of paramount importance that middle level curriculum is developmentally responsive (5). Some attributes of a developmentally responsive middle level curriculum allow for student choice in scheduling classes like electives and independent studies, and the curriculum must also be differentiated, challenging, exploratory, integrative, and relevant (13). Students must be measured using a variety of authentic formative and summative assessments that require application of real-world skills in order to obtain data on student growth and gaps in knowledge acquisition (24-25). However, state and federal policymakers have taken the student assessment and removed flexibility and differentiation from state and national assessment models; as a result, this inflexibility and “one-size-fits-all” thinking has trickled down into the middle level classroom, resulting in a high-stakes accountability movement and national curriculum.
3. Standardized Testing

Popularity in standardized testing has risen dramatically after the publication of *A Nation at Risk: The Imperative for Educational Reform* by the Reagan administration in 1983; this report portrayed the American educational system as a failing entity and proposed that its only way to redemption was through stricter accountability measures (i.e., increased standardized testing) (“Is the Use of Standardized Tests Improving Education in America?,” n.d.). The use of standardized testing has become controversial as these tests have become “high-stakes” for students and school faculty and administrators. Why do legislators and the general public care about standardized test scores? Numbers are the easiest data to analyze, and “educational attainment is well recognized as a powerful predictor of experiences in later life”, policymakers and the public assume that standardized testing data provide accurate reflections of student achievement (Brooks-Gunn & Duncan, 1997, p. 61). However, as the push for increased accountability through standardized assessment gained momentum it left many students falling through the cracks; standardized tests do not take the varying experiences of our students into consideration when it comes to test results, and as a result, achievement gaps became the norm for many subgroups but most noticeably for our economically disadvantaged children. Additionally, the recent downturn in our nation’s economy has resulted in a greater income gap between our schools’ wealthy and disadvantaged children: “…the Great Recession wreaked havoc among working-class families’ employment. This has led to greater residential segregation and homogenously poor neighborhoods, leading to a higher concentration of poor students in certain schools” (Neuman, 2013, p. 18). The time frame that our nation experienced the Great Recession coincided with No Child Left Behind’s deadline of having all children test as proficient in math and reading (according to standardized tests) by 2014; our nation did not meet this benchmark.

There are perspectives in favor of standardized assessments, in general, standardized tests are inclusive and non-discriminatory because everyone has to take them, regardless of race, gender, or ability. These tests can provide an indication of students’ ability on a variety of topics while identifying areas of strengths and weaknesses, and they can also be a useful tool for assessing the schools themselves (Brown & Hattie, 2012, p. 290). Moreover, advocates of standardized assessments argue that these tests make certain that schools and faculty members are held accountable to taxpayers for their instruction and that many parents and teachers approve of these tests (Is the Use of Standardized Tests Improving Education in America?, n.d.).

Concerns regarding standardized testing include placing too much emphasis upon scores, student testing anxiety, “teaching to the test” skewed test results, cheating concerns, and socioeconomic and cultural bias (Brown & Hattie, 2012; Olson, 1999). Part of the concern regarding standardized testing comes from concern that there is too much emphasis placed upon them, leading to concerns about student testing anxiety, “teaching to the test” skewed test results, and possible cheating concerns (Olson, 1999; Brown & Hattie, 2012, p. 289). Because these tests are considered “high-stakes”, poor student performance can lead to negative consequences for students and teachers alike; to protect both the test-takers and test administrators, “…just as students need an environment of psychological safety to make effective use of assessment, so too do teachers and school leaders need protection from negative consequences” (Brown & Hattie, 2012, p. 289). Some argue that the more important these tests become “in terms of being the basis for promoting or retaining students, for funding or closing down schools—the more that anxiety is likely to rise and the less valid the scores become” and that it ultimately “drives good teachers and principals out of the profession” (Kohn, 2000, p. 3; Renzulli, 2013, p. 1). Because the stakes of these tests are so high, test anxiety is now a common ailment amongst students across the nation; the Stanford-9 standardized exam, for example, even comes with instructions as to what actions the test administrator must take if a student vomits on a test booklet (Ohanian, 2002). Stories like this add to the public sentiment that these tests are inflicting serious harm to children, both academically and emotionally, and these assessments do not result in improved cognition (Horn, 2003; Popham, 2001). Furthermore, despite the avalanche of funds allotted to standardized testing, there exists a great deal of evidence that standardized tests do not improve student learning or achievement; in fact, according to NAEP (the National Assessment of Educational Progress), American children are actually performing worse after the implementation of No Child Left Behind accountability measures (“Is the Use of Standardized Tests Improving Education in America?,” n.d.).

Perhaps most important is not what is being assessed but rather what is *not* being assessed, as what we measure is both invalid and misleading because student achievement depends on multiple factors that cannot be readily assessed, like ability, behavior, and socioeconomic status (Brooks-Gunn & Duncan, 1997; Wiggins, 2012). Because these examinations are designed to assess what is easily measured, they are inherently incapable of assessing what cannot be measured. These tests cannot ascertain “initiative, creativity, imagination, conceptual thinking, curiosity, effort, irony, judgment, commitment, nuance, good will, ethical reflection, or a host of other
valuable dispositions and attributes” (Kohn, 2000, para. 45). This supports one of Albert Einstein’s most famous assertions: “Not everything that counts can be counted, and not everything that can be counted counts”.

4. Socioeconomic Status and Student Achievement

With regards to this study, socioeconomic status is viewed as a lens through which one measures student achievement. Correlational studies show a strong relationship between high poverty and poor academic performance (Sirin, 2005; White, 1982; White et al., 1993). This correlation begins at the beginning of a child's academic career, and even before, in some cases. Pawloski stated that poverty is more influential to academic performance than even gestational exposure to cocaine (2014). In every state in the nation the economically disadvantaged subgroup never outperforms other nonlabeled students regardless of the grade level or subject area, supporting that the variable with the strongest correlation to academic achievement is socioeconomic status; correlations between SES and student achievement frequently range from .100 to .800 (Tienken, 2010; White, 1982). In a meta-analysis of research regarding economic status and achievement, Sirin found that the correlation between these two variables increased throughout the levels of schooling, climaxing in the middle school, and plateauing at the high school level (2005). This is also an important factor for why additional study on student achievement and SES at the middle level is crucial as “the [cognitive] effects of wealth [are] indirect and must accrue over time” (Willingham, 2012, p. 34).

Accountability measures were put into place to ensure a decline in achievement gaps between low income and higher income students; No Child Left Behind legislated a goal of 100 percent of students, regardless of identifying labels, test at proficient levels by 2014. However, a 2008 study forecast “nearly 100% failure” of California schools to meet these accountability measures; the study cited that the reason for this projected failure would be due to the poor results from limited English proficiency students and high poverty students “(Is the Use of Standardized Tests Improving Education in America?,” n.d.). Unfortunately, NAEP data also supports this prediction; the National Association for Educational Progress reported in 2005 that nearly 50% of all immigrant, minority, and high poverty children would not graduate from high school and that in the nation’s largest cities, more than 30% of the lowest-income students land in the lowest percentile rankings on standardized assessments in reading and mathematics (Renzulli, 2013). Even the founder of the Educational Testing Service, Henry Chauncey, has been quoted as saying “if there is anything in heredity (such as tall parents having tall children), one would expect children of high socioeconomic group parents to have more ability than children of low socioeconomic group parents”; in other words, according to the architect behind a multi-billion dollar standardized testing company, public schools are now a Darwinian model of survival of the fittest--or perhaps the richest (“No Child Left Behind?”, n.d.).

5. State and National Report Cards

Because accountability laws require public dissemination of testing data on a state, district, and school level, state and national report cards were created to share this information with the general public. The purpose of creating state report cards is not only to publicize testing data on various levels, but it is also meant to act as an impetus to improve public education by providing the public with information, that will result in school improvement and increased parent involvement (Olson, 1999). Report cards’ format varies from state to state and typically include student outcomes like standardized test scores, attendance, and dropout rates; report cards are generally “…considered a central feature of state accountability systems”, which are largely driven by federal accountability systems put in place by Title I (Olson, 1999, para. 4; Title I, 2004). Title I, Part A states that in addition to publishing testing data on an annual basis on report cards, schools must also disaggregate data and provide a 2-year data trend to show the achievement of the following subgroups: racial and ethnic groups, students with disabilities, limited English proficient, economically disadvantaged, migration status, and gender (Report Cards: Title I, Part A, Non-Regulatory Guidance, 2003).

In addition to these data, many states assign an overall rating based mostly on standardized test data (Olson, 1999). These reports take a great deal of number crunching to prepare and, as a result, become very costly (up to $8,000 per school), and states are now assigning school rankings based on report card data. When newspapers publish test scores and rank schools “…there is a clear message to all concerned: These rankings reflect instructional quality” (Popham, 2001). Moreover, the national accountability movement, driven in part by federal education programs like Title I, has led to the creation of a national report card, published by the National Assessment of Education Progress (NAEP).

While state and national report cards can provide a window into the world of public school data and student achievement, it is only a tiny, jaded glimpse and cannot illuminate the complicated issues that surround student achievement and standardized high-stakes assessments. Despite the vast amount of data that are compiled and
synthesized to create these report cards, state report cards are unlikely to include important data regarding levels of parent involvement, quality indicators of a school’s teachers, and school climate data. These data have empirical links to improvements in student test scores but nonetheless are neglected from most report cards.

6. Title I

To address the widening income achievement gap between socioeconomically disadvantaged children and their wealthier counterparts (which later became evident on state and national report cards), the federal government created the Title I program. Title I is a federal education program whose purpose is to ensure that all children have an equitable opportunity to obtain a high-quality education and reach proficiency on standardized state assessments (U.S. Department of Education, 2004). Title I was originally established in 1965 as part of Lyndon Johnson’s “war on poverty” and was meant to close the achievement gap between disadvantaged students and wealthy students as well as minority and nonminority students (“5 Facts About Title I”, n.d.; U.S. Department of Education, 2004). Additionally, it was meant to boost achievement for poorly performing students in high-poverty schools (whether these students are high poverty themselves, limited English proficiency, or students with disabilities), and it was meant to be an equalizer of sorts by ensuring high-quality education and academic assessments through a strict accountability system and rigorous curriculum (U.S. Department of Education, 2004). Currently, Title I is the largest federally funded No Child Left Behind program; in 2013, more than $13 billion was earmarked for Title I funds on a national level (“No Child Left Behind Funding”, 2013).

Evidence regarding the success of Title I programs is contradictory. By some accounts the program is successful at closing achievement gaps, but by others a significant gap still remains between advantaged and disadvantaged students in high poverty schools. According to a document by the U.S. Department of Education, Title I has been recognized for closing the achievement gap in basic skills between minority and nonminority students by nearly 30% from 1970 to the mid-1980s (U.S. Department of Education, 1994, as cited by “Title I”, 2004). In the same document the National Assessment of Title I (NATI) cited gains in reading and math performance in Title I schools but also noted a considerable achievement discrepancy between students in the highest poverty and wealthiest public schools (“Title I”, 2004). In a 2011 study the researchers found that since 2002, 79% (or more, depending on the grade and subject combination) of Title I schools have made academic achievement gains (according to percent of students who test as proficient or tests’ mean scores) (Kober, McMurrer, Silva, & Rentner, 2011). This study also showed that gaps between Title I and non-Title I schools have narrowed more than they widened since 2002 (with some exceptions in fourth grade) and that gaps narrowed more quickly at Title I schools. Despite this evidence, however, Weinstein pointed out that no studies have been able to conclusively prove a cause and effect relationship between student success and Title I funds (2009).

Alternately, studies exist that call into question the efficacy and equity of Title I funding for high poverty schools. One study argued that Title I funding is inequitable due to its formula to determine eligibility in terms of Title I students in a district: either by counting the percentage of Title I eligible students in a district or by counting the total number of Title I eligible students in a district, the latter of which would favor large school districts at the expense of smaller ones with higher poverty rates (because Title I is a fixed amount of funding to be shared). Based on this information, North Carolina is ranked 50th with 19.4% of students eligible for Title I funds, but each pupil only receiving $1,261 from Title I funds, as opposed to Wyoming, ranked first with only 11.6% of it students being eligible for Title I funds, but each pupil receiving $3,149 from funds, nearly 3 times the amount of North Carolina students with fewer eligible students (“Title I Funding Revision Must Be a Priority for Real Education Reform”, 2010).

While evidence regarding the effects of Title I funding on student achievement is mixed, it is important to keep in mind that causality between achievement and federal funding has not been established. It is also important remember that Title I students are unlikely to become proficient learners without interventions focused on addressing both academic needs and economic environmental factors (Kober et al., 2011).

7. Academic Standards

After the implementation of No Child Left Behind, state standards (and standardized assessments aligned to these standards) became the norm to meet accountability measures of this legislation. However, there was a common argument that states could not compare data to one another because each state’s expectations was different from one another; hence came the impetus for the Common Core standards, which is a national set of standards that are meant to be used as a curricular framework for all states who adopted them (“In the States”, 2012). Like standardized testing, there exists a great deal of controversy surrounding the national implementation of these national standards.
In 2009 the National Governors Association, the Council of Chief State School Officers, and the organization “Achieve”, all led by the organization “Student Achievement Partners” and the head of the College Board Organization, David Coleman, wrote these standards. While there were few educators in this group, there were many testing representatives present (Ravitch, as cited in Strauss, 2014). Because the U.S. Department of Education is legally banned from controlling any curriculum in local public schools, it was prohibited from subsidizing the creation of these standards. As a result, the Gates Foundation has funded the cause with nearly $200 million to jump start the implementation of these standards. It is important to note that these standards are considered a starting point and will continue to be revised as new research arises, and students cannot currently opt out of this curriculum if they live in a state that has adopted the standards (“NC Common Core Explained: Frequently Asked Questions”, n.d.).

Wiggins (1991) asserted that a school has standards when it communicates high expectations for all its learners, and many proponents of the Common Core standards argue that this curriculum does just that. Those in favor of this curriculum believe that, if implemented correctly, it moves our nation’s schools beyond superficial “test preparation” curriculum and gives teachers the opportunity for deep, meaningful learning through fewer and more rigorous standards, helping our nation become more globally competitive (Conley, 2011; Wagner, 2013). Furthermore, by sharing a national curriculum, it will eliminate issues of gaps appearing for students if they are moved from a state mid-year (“The Standards”, 2010). It will also allow for the sharing of ideas and resources on a national level while still allowing for local flexibility and interpretation of the standards (Phillips & Wong, 2010).

Several professional education associations also support these new curricular standards, the most noteworthy being the nonprofit organization of the Association for Supervision and Curriculum Development (ASCD). This association, founded in 1943, is a membership-based group of educational professionals and experts, and it was one of the final educational organizations to formally endorse the Common Core standards. The ASCD only endorsed these standards after a thorough yearlong review of the standards development and implementation of this curriculum, and it stressed the importance of teacher and administrator input into these standards, along with continuous professional development, to make these standards a success.

Perhaps it is because of improper support and lack of appropriate professional development that opposition, both from political and educational realms, is beginning to grow in response to the implementation of Common Core standards. While a proponent of the common core himself, Conley warned that, if executed poorly, these standards could result in “accountability on steroids, stifling meaningful school improvement nationwide” (2011, para. 2). Furthermore, Diane Ravitch, noted educational historian, expressed that our schools are now comprised of “guinea pigs” trying out a largely untested curriculum (Ravitch, 2013). Ravitch also relayed her fear that issuing national curriculum could lead to a test-based meritocracy by ranking and rating every student, teacher, and school in the country (as cited by Strauss, 2014). Moreover, those opposed to the standards argue that there is no need for a national curriculum as a response to national mobility rates; as of 2011, the inter-state mobility rate is a mere 1.6% of the total population, and of that population, only 0.3% of these are school-age children (“Closing the Door on Innovation: Why One National Curriculum is Bad for America”, 2011).

In Tienken’s (2011) research on the growing body of evidence supporting the Common Core standards, he discovered a lack of empirical evidence supporting these standards; this assertion was based upon the 2010 Benchmarking for Success report, which was also written by the same group that created the standards. Of the 138 references used in this report, Tienken asserted that many of them are repetitive sources and that only four could be considered truly empirical studies directly related to national standards and student achievement (2011). The standards themselves are also a source for dispute. College professors who have reviewed the standards at length argue that they are oddly worded and leave much open to interpretation, much like this English Language Arts standard: “Analyze different points of view of the characters and the audience or reader (e.g., created through the use of dramatic irony) creating such effects as suspense or humor” (Schmoker & Graff, 2011, p. 2). Other issues surrounding the standards themselves vary. Complaints expressed about English Language Arts are that they focus more on metacognition than content, they are too focused on informational texts (at least 50% of texts in grades 6-12 must be informational), and they convey vague expectations and reading lists (Carmichael et al., 2010; Luebke, 2013).

Frustrations regarding mathematics standards include an avoidance of standard algorithms, fractions, and basic arithmetic skills, vague expectations for when to use a calculator, and the introduction of concepts before they are appropriate (such as introducing the idea of functions in first grade) (Carmichael et al., 2010).

Inevitably, growing constituencies of opponents are voicing their concerns that a “one-size fits all” curriculum is counterintuitive and counterproductive in a society that values individualization, differentiation, and customization and that it may place too much emphasis on standardized testing while discouraging teacher
autonomy (Stancill, 2013; Westervelt, 2014; Tienken & Zhao, 2010). Furthermore, it ignores various subgroups like learning disabled students as well as disregards parent and teacher input in educational policy (Westervelt, 2014). Having a single set of standards is myopic in that it assumes that all students start and end at the same academic ability while overlooking student diversity (Tienken, 2011). This diversity has historically been viewed as a mark of strength in our educational system, and it is unfortunate that student diversity is now being viewed as negative as our system attempts to fit every student to the same constricted, standardized mold (Luebke, 2013). Opponents of a nationalized, standardized curriculum often draw the comparison of a doctor practicing medicine: would a person want a one-size-fits-all approach to one’s medical treatment? Tienken and Zhao (2010) argued: “Why would you allow your child to receive programmed, standardized, one-size-fits-all instruction? We would not allow that for our children and we do not see any evidence that standardizing instruction will improve education for other peoples’ children” (pp. 7-8).

Further undermining confidence in the Common Core movement has been its effect on standardized testing, the related decline in test scores. Ravitch, who has made herself a vocal opponent of Common Core standards, reported that the dramatic drop in test scores was intentional through testing design. In every state where these tests have been implemented test scores have dropped by approximately 30%, which on NAEP assessments has translated to less than 4 in 10 students being labeled as proficient using the new Common Core standards (Gewertz, 2013; Strauss, 2014). Given that this steep decrease in test scores is across the general population of students, it only follows that these assessments will hurt students with disabilities, economic disadvantages, and limited English proficiency even more (Ravitch, 2013). Given the fact that many states are opting out of paper-and-pencil assessments in favor of online assessments, this leads to technology and additional funding concerns by states (Kober & Rentner, 2012). U.S. Secretary of Education Arne Duncan has been vocal in his rebuttal to concerns over the precipitous decline in test scores, arguing that “white suburban moms” are upset about the new Common Core tests because “their child isn’t as brilliant as they thought they were” (as cited in Strauss, 2013, para. 2). As a result of the tremendous decline in scores and related concerns, as many as 10 states are now delaying implementation of Common Core assessments, and the board of New York’s teachers recently unanimously voted to withdraw its support for the Common Core standards (Bidwell, 2014; Strauss, 2013). Principals who withdrew their support in New York testified that:

“…many children cried during or after testing, and others vomited or lost control of their bowels or bladders. Others simply gave up. One teacher reported that a student kept banging his head on the desk, and wrote, ‘This is too hard’ and ‘I can’t do this’ throughout his test booklet” (Bidwell, 2014, para. 9).

With a sudden reversal of state support for the Common Core, the future of the program is uncertain at best. Although most states that originally adopted the initiative are still implementing the standards and their respective assessments, with the opposition growing, the effect of the standards on student learning is still undetermined at this time (Strauss, 2013).

At this point, after several years of research, development, and a nearly-nationwide implementation of the Common Core standards, abandoning the movement mid-implementation may be disastrous. As the change process dictates, all implementations have an implementation dip where the process becomes more difficult before true, lasting change takes place. Several researchers believe that the Common Core standards implementation should continue through this “dip” but that some changes are necessary to make it succeed. These researchers believe that rather than as a tool for high-stakes testing, it should be used as a “low-stakes” tool to use for curriculum development and professional development. Furthermore, these researchers argue that Common Core standards and assessments should be subjected to field testing and revisions before using these standards for high-stakes assessments (Mathis, 2010).

8. Discussion and Implications for Middle Level Teacher Preparation Programs

The Common Core movement, along with what we know as educational researchers about the effects of poverty on student achievement, has a significant impact on how we are preparing our future middle level teachers as undergraduate students at the collegiate level. Schools with high levels of poverty score very low on current measures of effectiveness which are primarily based on standardized tests. Reeves (2000) recognized exceptions to this in his study of 90-90-90 schools; 90% poverty, 90% ethnic minority, and 90% proficient on state assessments. Jenson (2009) identified five key factors in meeting the needs of students from poverty. Jenson used the SHARE acronym:

- Support of the Whole Child,
- Hard Data,
Accountability,
Relationship Building,
Enrichment Mindset.

In addition to recommendations from Reeves and Jenson, Marzano (2004) discussed closing gaps of children from poverty with specific approaches to teaching. And finally, Payne (1996) offered schema to understand the experiences and thinking of families in generational poverty. Are these resources being used in teacher preparation, especially at the middle level?

An informal survey of five teacher preparation programs in the Appalachian area revealed no explicit approach to preparing teacher candidates for teaching students of poverty. All five schools rely on the broad diversity statements in each syllabi, field experiences, and the candidate’s final portfolio for evidence of the candidate’s preparation in this area. We, the authors, make the assertion that this is not enough.

We recommend a deep look at course syllabi to identify where approaches to teaching students of poverty can be included while also meeting the developmental, social, emotional, and cognitive needs of the middle level learner, which is the recommendation of the Association for Middle Level Education (2010). We recommend that middle level teacher preparation programs identify assessment measures for student learning in this area. The academic gap for children of poverty is too obvious for this to be ignored by current teacher preparation programs.

References


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