

IN THE CRITICAL TRADITION:  
AN EXAMINATION OF NATIONAL BOARD CERTIFIED TEACHERS  
IN A CENTRAL FLORIDA SCHOOL DISTRICT

by

JACQUELYN B. FLANIGAN  
B.A. Indiana University, 1980  
M.Ed. University of Central Florida, 2002

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Major Professors: Randall Hewitt and Larry Holt

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## ABSTRACT

In 1986, the Carnegie Forum on Education and the Economy published *A Nation Prepared: Teachers for the 21<sup>st</sup> Century* in which it recommended that a National Board for Professional Teaching Standards (NBPTS) be established to ascertain and institute criteria for teacher excellence (Steiner, 1995). *No Child Left Behind Act of 2001* (NCLB) mandated that every classroom employ a “highly qualified teacher” (No Child Left Behind, 2001a); moreover, NCLB articulated the relationship between improving student achievement and higher standards for qualifying classroom teachers (Rotberg, Futrell & Lieberman, 1998). Research conducted in Miami-Dade County supports Florida’s use of National Board Certification (NBC) as an “effective signal of teacher quality”(CNA Corporation, 2004, p.1).

Critical theorist, Michael Apple, emphasized the role of education as an agent for the maintenance of hegemony (Apple, 2004). However, Apple further posited that the actual bureaucracy of school – the institution of education itself – is reflective of the same consumerist ideology of society, thus making the hegemony even more complete. Using the aforementioned theoretical construct, the researcher examined the development of the National Board for Professional Teaching Standards (NBPTS), the distribution of Nationally Board Certified Teachers (NBCTs) in a central Florida school district, and their professional responsibilities as a means of examining whether this mechanism for identifying “highly qualified teachers” achieves its stated aim of providing every student with access to a “highly qualified” teacher, as is legislated and funded per NCLB.

This dissertation is dedicated to my family; my husband, Dion, my daughters, Hilary and Emily, my parents, Dick and Marie, and my brother, Tony. Included in my family is my friend, Dr. Tom Vitale.

I want to express my thanks to Tom (WTPA – FOAG). Since 1996, he has been my mentor and my friend. His merciless pushing and willingness to listen to me for endless hours, guided me through this process. Without him, I *know* I would have given up. I am deeply grateful for his support, but mostly, his friendship.

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## CHAPTER ONE: INTRODUCTION

### Background of the study

With the 1983 publication of *A Nation at Risk: The Imperative for Educational Reform*, significant attention was given to the need for excellence within the teaching profession (National Commission on Excellence in Education, 1983). Following this publication, in 1985, Albert Shanker, president of the American Federation of Teachers urged the formation of a board for teacher standards and evaluation (National Board for Professional Teaching Standards, 2007c). Finally in 1986, in response to *A Nation at Risk*, the Carnegie Forum on Education and the Economy instituted its Task Force on Teaching as a Profession and published its own report, *A Nation Prepared: Teachers for the 21<sup>st</sup> Century* (Steiner, 1995). In this report, it was recommended that a National Board for Professional Teaching Standards (NBPTS) be established in order to ascertain and institute criteria for the identification of teacher excellence. Thus in 1987, the NBPTS, co-sponsored by the American Federation of Teachers (AFT) and the National Education Association (NEA) (Goldberg, 2001), began the development of national teacher certification, a process that eventually included a minimum of three years of classroom teaching experience, a portfolio, video of classroom practice, and written examination (National Board for Professional Teaching Standards, 2007a). In 1989, the NBPTS issued a policy statement, *What Teachers Should Know and Be Able to Do* that formed the foundation for credentialing standards for National Board Certification of teachers. The policy position was indicated in five core propositions of the NBPTS.

- 1) Teachers are committed to students and their learning.

- 2) Teachers know the subjects they teach and how to teach those subjects to students.
- 3) Teachers are responsible for managing and monitoring student learning.
- 4) Teachers think systematically about their practice and learn from experience.
- 5) Teachers are members of learning communities. (National Board for Professional Teaching Standards, 2007b)

The NBPTS certification process targeted the goals of: improved teaching skills, state-to-state mobility for teachers, improved teacher training, bringing esteem to the profession of teaching, and recognition of expert teachers (Chaika, 2004). The NBPTS and National Board Certified Teachers (NBCTs) have been recognized in all fifty states and in the District of Columbia (Chaika, 2004; National Board for Professional Teaching Standards, 2007c), and through 2006, the NBPTS has certified 63,800 teachers (Viadero & Hanowar, 2008)..

While the NBPTS has sought to identify those characteristics that are hallmarks of quality teaching practice, federal legislation has also been concerned with teacher quality. *No Child Left Behind Act of 2001* was built on the foundation established by past federal regulation. *Brown v. Board of Education* (1954) determined that “separate but equal” was unconstitutional (National Center for Public Policy Research, 2007). The *Elementary and Secondary Education Act of 1965* represented the first federal involvement in educational policy following the *Civil Rights Act of 1964* (No Child Left Behind, 2001b). The 2001 reauthorization of the *Elementary and Secondary Education Act of 1965 (ESEA)*, commonly known as *No Child Left Behind Act of 2001 (NCLB)*, targeted the gap between the highest and lowest performing students and schools with the intention of closing that gap. *No Child Left Behind* also was initiated with the concern that “...too many of our neediest children are being left behind...” (No Child Left Behind, 2001a,

¶1), and is consistent with the historical pattern of federal involvement that clearly points to concerns for minorities and the poor. Mandated among other accountability measures for the purpose of school reform was that every classroom employ a “highly qualified teacher” by the 2005-2006 school year (Berry, 2002; No Child Left Behind, 2001c). Moreover, NCLB articulated the relationship between improving student achievement and higher standards for qualifying classroom teachers (Rotberg, Futrell, & Lieberman, 1998). This articulation was based upon research which consistently demonstrated that teacher quality equated to increased student learning outcomes (Darling-Hammond & Youngs, 2002; Ferguson, 1998; Goldhaber, 2002; Hanushek, 1992). While the definitions of “highly qualified” have been numerous and varied (Baratz-Snowden, 1993), research conducted in Miami-Dade County supported Florida’s use of National Board Certification (NBC) as an “effective signal of teacher quality” (CNA Corporation, 2004, p. 1). In addition, through the *Dale Hickam Excellent Teaching Program Act*, the state of Florida endorses National Board Certification through substantial bonus pay to teachers who earn the certification (National Board for Professional Teaching Standards, 2007a; State Action-Florida, 2005; Teaching Profession Committee, 2003). It is therefore logical to assume that teachers holding this certification would be considered “highly qualified” and would be employed in classrooms where they have direct instructional contact with the neediest students. This assumption is consistent with the purported intent of federal involvement and regulation (Darling-Hammond & Sykes, 2003) and with the goals acknowledged by the NBPTS. Joseph Aguerrebere, NBPTS President and Chief Executive Officer (CEO) stated, “The National Board is committed to ensuring that all teachers have access to National Board Certification and that all students have access to

National Board Certified Teachers” (National Board for Professional Teaching Standards, 2004f, p. 6, ¶18). States, districts and schools are therefore obligated to provide evidence of progress toward the equitable distribution of highly qualified teachers (National Comprehensive Center for Teacher Quality, 2006; No Child Left Behind, 2001c). The rationale for this study is to provide data for the specified school district in order to further efforts to ensure that all students in that district, regardless of race, poverty or academic performance, have equal access to that district’s highly qualified teachers. This assurance is consistent with compliance to NCLB legislation and the stated aims of NBPTS.

#### Statement of problem

Specifically included in the NCLB legislation was the need for a highly qualified teacher in every classroom. The legislation delineated that “highly qualified” corresponds to teacher licensure: teachers must pass state licensing examinations in order to meet the federal standard (Berry, 2002). However, actually defining “highly qualified” has been problematic. Teacher certification and licensure in the form of subject area examinations alone are disconcerting (Berry, 2002; Goldhaber & Anthony, 2004). The state licensure and certification process typically does not include the complex instructional skills necessary to teach. In addition, many states have actually relaxed their requirements for licensure in order to comply with the federal mandate (Berry, 2002; Darling-Hammond, 2002; Darling-Hammond & Sykes, 2003; Podgursky, 2003). Furthermore, teachers participating in alternative licensure programs are also regarded as “highly qualified” as long as progress is being made toward state certification. Many of these programs comprise a minimal number of weeks of training or preparation (Berry, 2002; Darling-

Hammond & Sykes, 2003). In Florida, as previously indicated, the NBPTS has been cited as an “effective signal of teacher quality” (CNA Corporation, 2004, p. 1). More specifically, the CNA Corporation asserted that certification awarded by the NBPTS was sufficient in determining that the teacher was “highly qualified.” Thus, it is logical to assume that such teachers would be employed in classrooms where they have direct instructional contact with the neediest students.

Past research, however, has consistently found disparity in educational opportunity among the poor, minority and the academically disadvantaged (Ingersoll, 1999; Mayer, Mullens & Moore, 2000; National Comprehensive Center for Teacher Quality, 2006; National Partnership for Teaching in At-Risk Schools, 2005). This disparity appears to exist when the teachers are NBCTs, in apparent contradiction to the stated goals of NBPTS. In 2004, SRI International, a non-profit research institute, released data revealing that among the NBCTs certified since 1998, 16% teach in schools serving a 75% or more minority student population; 12% teach in schools where 75% of students are eligible for free or reduced lunch; and 19% teach in low-performing schools (as cited in National Center for Alternative Certification, 2004). A study conducted in North Carolina, the only state to boast more NBCTs than Florida, revealed “the most disadvantaged districts, schools and students are least likely to have access to those teachers who are recognized by NBPTS as being exceptionally qualified teachers” (Goldhaber, Choi & Cramer, 2007, p. 160). Upon the examination of the distribution of NBCTs within a particular district, the question, and therefore the problem addressed by the researcher in this study, was do all children have the legislated equal access to a “highly qualified” NBCT?

## Purpose

The purpose of this study was to examine the distribution of NBCTs across a central Florida school District in order to determine whether schools with higher populations of poor, minority and academically low-performing students were just as likely to have access to an NBCT as students in those schools that are not represented by higher percentages of poor, minority and low-performing students.

## Definitions

The following terms are defined and will be used throughout this study:

1. *Adequate Yearly Progress (AYP)* – Per the No Child Left Behind Act of 2001 (NCLB), schools are held accountable by imposed sanctions if any group of students does not make adequate yearly progress. In Florida, this is determined by the Florida Comprehensive Assessment Test (FCAT).
2. *Critical Social Theory* – “Critical social theory is a multidisciplinary knowledge base with the implicit goal of advancing the emancipatory function of knowledge. It approaches this goal by promoting the role of criticism in the search for quality education” (Leonardo, 2004, p.11).
3. *Elementary and Secondary Education Act of 1965* – (ESEA). Enacted by President Lyndon B. Johnson, was the first comprehensive federal education law that provided substantial funding for kindergarten through twelfth grade education. It has undergone numerous reauthorizations up to and including the *No Child Left Behind Act of 2001* (No Child Left Behind, 2001b).
4. *Equitable distribution of teachers* – The equitable distribution of teachers is defined by the National Comprehensive Center for Teacher Quality (NCCTQ). “Teachers are distributed throughout the unit of analysis (e.g., state district, school) such that high-poverty, minority, or learning-disabled students are just as likely to be taught by a highly-qualified, experienced teacher working in their field as are students who do not fall into these categories” (National Comprehensive Center for Teacher Quality, 2006). For the purpose of this study, the categories above will include academic performance based on the school grade (See Definition of Terms, #6, #10).
5. *Florida A+ Program* – In accordance with NCLB, Florida grades its public schools based on mastery of the Florida Sunshine State Standards, the skills and content that determine what must be learned at each grade level, also measured by the FCAT (United States Senate Republican Policy Committee, 2001).

6. *Florida A++ Program* – In accordance with NCLB mandates, Florida’s A+ school accountability program was revised in order to increase “rigor and relevance of Florida’s middle and high schools to better prepare students for postsecondary education and the workforce” (Florida Department of Education, 2006d, ¶1).
7. *Florida Comprehensive Assessment Test* – “...part of Florida’s overall plan to increase student achievement by implementing higher standards. The FCAT, administered to students in Grades 3-11, contains two basic components: criterion-referenced tests (CRT), measuring selected benchmarks in Mathematics, Reading, Science, and Writing from the Sunshine State Standards (SSS); and norm-referenced tests (NRT) in Reading and Mathematics, measuring individual student performance against national norms” (Florida Department of Education, 2007a).
8. *Free and reduced lunch program* – The National School Lunch and Breakfast program provides meals at a free or reduced cost based upon United States Department of Agriculture (USDA) Income Eligibility Guidelines, which are adjusted annually for inflation. Program eligibility factors of household income and size are in relation to federal poverty guidelines (Florida Department of Education, 2007c). All school sites receive a copy of the revised guidelines each year.
9. *Hegemony* – “the social, cultural, ideological, or economic influence exerted by a dominant group” (Webster, 2007).
10. *Hidden curriculum* – Sociologist Philip Jackson used “hidden curriculum” to refer to the socialization aspect of schooling as something experienced, rather than overtly taught (Jackson, 1968/1990).
11. *Minority* – For the purposes of this study, the term “minority” referred to any white, non-Hispanic demographic subgroup, excluding Asian or Pacific Islander, multiracial or American Indian or Alaskan peoples. The demographic subgroups were defined by the selected District (Osceola District Schools, 2007).
12. *No Child Left Behind Act of 2001* – The bi-partisan legislation that reauthorized the *Elementary and Secondary Education Act of 1965*. This legislation, proposed by President George W. Bush, “...include[s] increased accountability for States, school districts, and schools; greater choice for parents and students, particularly those attending low-performing schools; more flexibility for States and local educational agencies (LEAs) in the use of Federal education dollars; and a stronger emphasis on reading, especially for our youngest children” (No Child Left Behind, 2001a, ¶4; No Child Left Behind, 2001c).
13. *School grade* – “Schools [in Florida] are assigned a grade [A – F] based primarily upon student achievement data from the FCAT. School grades communicate to



the public how well a school is performing relative to state standards. School grades are calculated based on annual learning gains of each student toward achievement of Sunshine State Standards, the progress of the lowest quartile of students, and the meeting of proficiency standards” (Florida Department of Education, 2007b). For the purpose of this research, level of academic performance by a school will be determined by the school grade as determined by the Florida Department of Education.

14. *Socio-economic status (SES)* – “An individual's or group's position within a hierarchical social structure. Socioeconomic status depends on a combination of variables, including occupation, education, income, wealth, and place of residence” (Answers Corporation, 2007). For the purpose of this research, SES will refer to the generalized standard of living status of a particular school population as measured by the percentage of students who are eligible for the free and reduced lunch program.
15. *Sunshine State Standards (SSStds)* - Forty-nine states, including Florida, have adopted academic standards in an attempt to reform and improve the quality of education. The passage of the *No Child Left Behind Act* increased the importance of the quality of state standards and state testing because federal funding is contingent upon annual progress in student achievement based on these standards and test results.

#### Assumptions

The following are the assumptions of the study:

1. NBCTs are highly qualified.

Embedded in this study was the assumption that teachers who are NBCTs are highly qualified. In Florida, the NBPTS has been suggested as a means of determining teacher quality through a study conducted in Miami-Dade County (CNA Corporation, 2004).

#### Limitations

The following are the limitations of the study:

1. Teacher mobility

Limitations of the study included the inevitability of teacher mobility. Because teachers typically choose their placement prior to the start of the school year, there were 19 teachers that were newly certified NBCTs in the District during the 2007-2008 school year that could not be considered. Prior studies (Goldhaber, Choi & Cramer, 2007) have indicated that where a teacher is employed at the start of his or her certification process may be different than where he or she chooses to work after certification has been earned. Thus, only the 94 NBCTs that began the 2007-2008 school year were considered for this study.

## 2. Impact of monetary compensation

The impact of the monetary compensation must be considered as this compensation varies greatly. Some NBCTs are employed in administrative capacities that are paid accordingly, but do not receive the additional bonus pay for having earned NBCT status. Instructional positions do earn bonus compensation for NBCT status; however, those positions may include responsibilities that are not actually classroom based; i.e.; reading and math coaches and curriculum resource teachers. While such positions are considered instructional, rather than administrative, and are compensated based on the District's scale, with additional stipends, those positions do not have direct, daily classroom contact with students.

## 3. Exclusion of alternative schools

The District comprises several "alternative" school sites including charter schools, remediation centers, and programs that are part of the juvenile detention system. The student populations in such facilities may represent enrollment based on factors other than geographic zoning restrictions. For this reason, the researcher selected only those

elementary, middle, high and multi-level schools that were attended by students who were geographically zoned for enrollment.

#### 4. Constantly changing data

The District represents one of the largest and fastest growing Districts in Florida (Osceola District Schools, 2007). Enrollment numbers, staffing changes and demographic data reflect this growth. The researcher used data that were provided at the beginning of the 2007-2008 school year; however, the data represent information gathered from the 2006-2007 accountability reports. It must also be noted that these data may reflect slight differences at any point throughout the school year.

#### Theoretical framework

Through critical examination of the distribution of highly qualified teachers in one central Florida school district, the question of the existence of social oppression within the poor and minority populations served was raised. The NBPTS has articulated a clearly defined goal of providing all students with access to NBCTs (National Board for Professional Teaching Standards, 2004), a goal in concert with federal legislation (*No Child Left Behind, 2001c*). Thus, are the goals of NBPTS and NCLB a reality within a central Florida district? Do NBCTs remain in classrooms with direct instructional contact with children, more specifically, the neediest children? If not, could the existence of social oppression be therefore contextualized?

Critical Social Theory (CST) “encourages the production and application of theory as part of the overall search for transformative knowledge” (Leonardo, 2004). CST is related to Critical Theory (CT), rooted in the function of debate and dating to Plato and the advent of Greek thought. Philosophy, reason and literature were subject to discourse

through critique, but it was not until Max Horkheimer of the Frankfurt School, whose examination of authority, cultural dominance and power during the Second World War, that CT included modern concerns relative to the transformation of society thus becoming “social.” CT and CST are known for the use of criticism and “its ability to advance research on the nature of oppression and emancipation” (Leonardo, p.11).

The application of theory in education is not new; however, CST was not recognized in educational parlance until Paulo Friere’s *Pedagogy of the Oppressed* (Friere, 1974). In education, Friere is considered CST’s “inaugural philosopher” (McLaren, 1999), and he (Friere) was “without question the most influential theorist of critical or liberatory education” (Weiler, 1994, p.13). Critical social theorist, Michael Apple, critiqued the structure of curriculum, emphasizing the role of education as an agent for the maintenance of hegemony (Apple, 2004). Hegemony is defined as “the social, cultural, ideological, or economic influence exerted by a dominant group” (Webster, 2007). Similar to other social structures, Apple contended education establishes the relationship between culture and economic structures, “...the concrete ways in which prevalent...structural arrangements – the basic ways institutions, people, and modes of production, distribution, and consumption are organized and controlled – dominate cultural life” (p. 1). This is exemplified within both the system of schooling as well as the legislation that guides its purpose. In a report from the Government Accountability Office released March 25, 2008, the Washington Post reported that a funding “loophole” had been identified within NCLB. While NCLB legislation requires states to allocate 4% of the largest portion of federal education funding to support programs for students attending high-poverty, low-performing schools, another rule – one

that overrides the previous directive – prohibits states from using the full portion of that funding in schools posing the most serious problems if that funding has been redirected from other systems (Rosenfeld, 2008). Dianne M. Pich, executive director of the Citizens' Commission on Civil Rights, stated, "Congress has tolerated a major loophole in the funding process that basically permits business as usual. It permits less-poor areas to continue to get resources while denying resources to the poorest communities" (§4).

Apple also contended that the actual bureaucracy of school – the institution of education itself – is reflective of a consumerist and hierarchal ideology of society, making the hegemony even more complete. He stated, "In effect, for this more critical tradition, schools latently recreate cultural and economic disparities, though this is certainly not what most school people intend at all" (Apple, 2004, p. 32). School is expected to be a neutral institution for learning, but itself is a victim of the power characteristic of the dominant culture reflected in the very organization of that system. The fundamental danger in this dynamic is the lack of recognition that the victimization has occurred. Thus, Apple's contention about ideology and hegemony is even more potent as a result of such inherency.

Even before Apple, Herbert Kliebard, in "The Rise of Scientific Curriculum Making and its Aftermath" (1975) recognized the consumerist nature of the organization of school and the role of educators in such hegemony in the theoretical framework defined by Franklin Bobbitt and W.W. Charters in the early 20<sup>th</sup> century. The "scientific" structure of schooling was largely based on production and productivity as a reflection of the industrial labor markets of that time. Kliebard stated, "...he [Bobbitt] provided the professional educators in the twentieth century with the concepts and metaphors – indeed,

the very language – that were needed to create an aura of technical expertise without which the hegemony of professional educators could not be established” (p.28).

The function of CST is to understand the very nature of social oppression, recognizing, through critical examination, that the oppression is both existent and powerful. It does not substantiate that oppression exists; rather, describes the form it assumes (Leonardo, 2004). Consequently, CST provided the theoretical foundation for this study and established the lens through which the data were examined and interpreted.

### Research questions

The following questions will guide the research:

1. To what extent is the distribution of NBCTs equitable across a specified central Florida school district?
2. To what extent are NBCTs employed in classroom instructional positions in a central Florida school district?
3. To what extent are NBCTs employed in poor and minority schools in a central Florida school district?
4. To what extent are NBCTs employed in academically low-performing schools in a central Florida school district as defined by the A+ Accountability Plan for Florida schools?

### Hypothesis

While previous research has been consistent in reporting findings that indicate NBCTs are less likely to be in districts and schools representing high poor, minority and low-performing environments (Haycock, 2003; Kozol, 1991/2005), this District represents schools that feature a broad mix of demographics, predominantly comprised of poor, minority and academically average to low performing students, leaving open the opportunity to examine whether NBCTs are likely to be in classrooms with full time

instructional responsibilities and whether NBCTs are equitably distributed among the District's individual schools with the highest poor, minority and low-performing populations. It is the hypothesis of the researcher that NBCTs are equitably distributed across the District's schools, however, they are not found in classrooms where their knowledge and experience places them in direct instructional contact with students.

### Methodology

The researcher examined the distribution of NBCTs in a central Florida school district, and their professional responsibilities with regard to school demographic variables of race, poverty and academically at-risk status based on the state's accountability program. "Schools [in Florida] are assigned a grade [A – F] based primarily upon student achievement data from the FCAT...School grades are calculated based on annual learning gains of each student toward achievement of Sunshine State Standards, the progress of the lowest quartile of students, and the meeting of proficiency standards" (Florida Department of Education, 2007b). The examination of demographics sought to identify relationships, if any, that may have existed between and among the stated variables and teachers who are National Board Certified. The results provided insight as to whether NBPTS achieves its stated aim of providing every student in the specified central Florida school district with access to a "highly qualified" teacher as legislated and funded. This study will add to the body of research on the equitable distribution of qualified teachers in accordance with NCLB mandates and the stated aims of NBPTS. Because of the demographic composite of the District, 67.6% of the District are minority, 54.6% are eligible for free or reduced lunch, and the overall district grade is a "C," this District represents a unique circumstance.

## Population

The researcher selected a central Florida school district that, in the 2006-2007 school year, enrolled 53,335 students in 61 schools, representing traditional, charter and alternative programs. For the purpose of this research, 34 schools were included: 19 elementary schools, 7 middle schools, 6 high schools, and 2 multilevel (K-8 or 6-12) schools. These schools reported accountability data as required by the Florida Department of Education (FDOE) which are available through the FDOE. At the time of this study, 2007-2008 state accountability data have not been collected or reported; therefore, the academic standing of the schools was based upon the 2006-2007 results. The use of the 2006-2007 academic performance data was appropriate as the schools represent geographic attendance zones. Any changes in student enrollment and/or demographics would therefore represent consistency in those numbers.

The number of NBCTs used for this study was 94 representing the total number of NBCTs who began the 2007-2008 school year. The District reported an additional 19 teachers who earned national certification in January, 2008; however, because teacher mobility once certification has been earned is a consideration (Goldhaber, Choi & Cramer, 2007), the researcher used only those teachers who began the school year with that (NBCT) distinction. Also excluded were the NBCTs who were employed in an administrative or other non-instructional role.

The use of correlation testing was appropriate as the researcher sought the degree of relationship between two (or more) variables.



## Demographics

The overall demographics of the District (2006-2007) were as follows: 32.0% White, Non-Hispanic; 4.9% Multiracial; 0.3% American Indian or Alaskan; 49.9% Hispanic; 10.3% Black, Non-Hispanic; 2.5% Asian, Pacific Islander. Of the 53,335 students, 54.6% are eligible to receive the Free/Reduced Lunch program. The District grade based on the state accountability report was a C for the 2006-2007 school year (Osceola District Schools, 2007).

The names of teachers who have earned National Board Certification and their areas of certification are available to the public through the NBPTS website database. However, the researcher sought to obtain data that was more current, as teacher mobility between schools and districts may result in changes to this data. Therefore, the researcher initiated contact with the Superintendent of the selected central Florida school district in order to obtain permission and initiate the acquisition of the desired data. The researcher also sought District demographic data representing students' race, SES and individual school grades within the District. Approval through the University of Central Florida (UCF) Institutional Review Board was sought and confirmation of such was received by the researcher on March 27, 2008 and is found in Appendix A. Once all data were collected, it was entered into the Statistical Package for the Social Sciences (SPSS) for analysis.

## CHAPTER TWO: LITERATURE REVIEW

The purpose of this study was to examine the distribution of NBCTs across a central Florida school District in order to determine whether schools with higher populations of poor, minority and academically low-performing students were just as likely to have access to an NBCT as students in those schools that are not represented by higher percentages of poor, minority and low-performing students. A review of the current literature provided a foundation for understanding. The review is divided into the following sections: No Child Left Behind Act of 2001; Teacher quality, certification and effectiveness, National Board for Professional Teaching Standards (NBPTS), NBPTS in Florida, NBPTS and student achievement, Critical social theory in education, The educational system and hegemony, and finally, an integration of the literature in a Summary.

### No Child Left Behind Act of 2001

The quality of education in the United States has been at the forefront of political discourse with regard to issues of pressing social concern for decades. On January 8, 2002, President George W. Bush signed into law the No Child Left Behind Act of 2001 P.L.107-110 (NCLB), a re-authorization of the Elementary and Secondary Education Act of 1965 (ESEA). No Child Left Behind was the most significant educational legislation to be enacted in decades, and its reforms were considered to be sweeping (Simpson, LaCava & Graner, 2004). NCLB established measures that required states to define and implement clear and systematic learning standards and then measure their achievement through state exams. Flexibility was emphasized by providing states and local education agencies (LEAs) greater autonomy in allocating federal monies, while at the same time,

allowing greater choice to parents and students especially those in low-performing schools (No Child Left Behind, 2001a). NCLB also placed increased emphasis on reading by setting the goal that every child read at grade level by third grade (United States Department of Education, 2004).

In addition to a focus on learning standards and parent choice, NCLB set new and higher accountability standards for schools, standards that were based on yearly testing. Accountability results were to be reported categorically by poverty, race, students with disabilities and those students who are limited-English proficient (LEP). The purpose for such categorical reporting was to ensure no one particular demographic group would be left behind (Hess & Finn, 2007; No Child Left Behind, 2001a). Moreover, should schools not meet the stated requirements, the law provided measures for intervention that included flexibility and diversion of the use of federal funds in exchange for stronger results (No Child Left Behind, 2001a).

NCLB was built on a foundation established by past federal regulation. *Brown v. Board of Education* (1954) determined that the “separate but equal” doctrine was unconstitutional (National Center, 2007). Later, the *Elementary and Secondary Education Act of 1965* represented the first federal involvement in educational policy following the *Civil Rights Act of 1964* (No Child Left Behind, 2001b). Signed by President Lyndon B. Johnson, on April 9, 1965, the 34-page document intended to address the crisis of inequality in education that had been exposed by the Civil Rights Movement. Paramount in the legislation was funding allocated to school districts in order to meet the unique needs of educationally disadvantaged children, known as Title I (Jeffrey, 1978). At the time, Congress had allocated over 80% of the federal funds designated for ESEA to be

distributed to Title I programs. Like many reforms during the Johnson administration, the ESEA legislation focused on issues of equity, specifically targeting the impact of poverty and race by providing funding for libraries, education research, and state education departments and programs (1978). As he signed ESEA into law, President Johnson stated, "No law I have signed or will ever sign means more to the future of America" ("Congress," 2001).

ESEA was reauthorized several times over the subsequent decades; each change in the original document demanded increased results-based accountability. By the time NCLB was signed into law, its "assertively stated goal" was to "ensure that all children have a fair, equal, and significant opportunity to obtain a high-quality education, and reach, at a minimum, proficiency on challenging state academic achievement assessments" (No Child Left Behind, 2001c; Simpson, LaCava & Graner, 2004, p.68).

The historical pattern of federal involvement in education has clearly pointed to concerns for minorities and the poor. Like ESEA, *No Child Left Behind* was initiated with the concern that "...too many of our neediest children are being left behind..." (No Child Left Behind, 2001a, ¶1). NCLB accountability standards were designed to address the achievement gap between the highest and lowest performing students and schools with the intention of closing that gap (No Child Left Behind, 2001c). It was equally evident that those low performing students and schools were, in fact, typically found among poor and minority populations. According to an editorial in the *Florida Times-Union* in the same year NCLB was authorized, 60% of underprivileged 4<sup>th</sup> grade students could not read ("Congress," 2001).

In 1999, the state of Florida launched the “A+ Program” for Florida schools based on education reform initiatives of then-Governor Jeb Bush. In this program, the state assigns its schools a letter grade, A, B, C, D or F, dependent on student performance on the FCAT. The A+ Program was initiated prior to NCLB; however, the system and means for accountability were similar (Center for Civic Innovation, 2001).

Detractors of NCLB claim an “unprecedented federal takeover of education” (Rothstein, 2008, p. 50). Included in their critique of the federal legislation are assertions that NCLB levies financial consequences on those school that do not meet the federal standards regardless of socioeconomic disadvantages or learning disabilities. NCLB makes no provisions for students with cognitive disabilities, limited-English proficiency or domestic poverty which may restrict a child’s overall preparation for school, such as books in the home and preschool programs (Baines & Stanley, 2004). In addition, critics also point to a test-focused, test-driven system of accountability that has seriously short-changed any focus on genuine student achievement (Rothstein, 2008). For such critics, achievement based upon test scores alone is not “genuine.” Teachers cite how the strict focus on testing has restricted quality teaching and has rendered instruction and assessment as a one-size-fits-all process (Hoff, 2007). Yeh (2006) reported, “...current forms of annual testing may not provide the type of rapid assessment information needed by teachers to improve instruction. Results that are reported during the summer, after students have moved on to the next grade level, may not be useful for improving instruction” (p. 495). Moreover, such singularity of assessment and focus on content knowledge lack any focus on critical thinking, considered to be a crucial component for learning gains.

Perhaps most importantly in today's information age, thinking skills are viewed as crucial for educated persons to cope with a rapidly changing world. Many educators believe that specific knowledge will not be as important to tomorrow's workers and citizens as the ability to learn and make sense of new information. (Gough, 1991, as cited in Cotton, 1991).

In an article appearing in *Education Week*, a member of the powerful teachers' union, American Federation of Teachers (AFT), was quoted, "The closer you are to the classroom, the more you despise that [NCLB] law" (p. 25).

### Teacher quality, certification and effectiveness

Defining teacher quality has continued to be the subject of accumulating research; yet, research remains inconsistent when defining what is meant by "highly" qualified (Berry, Hoke & Hirsch, 2004; Darling-Hammond & Sykes, 2003; Ingersoll, 2001). The recognition of the need to be able to identify quality teachers through a comprehensive and reliable process has been consistently presented in past research (Kanstoroom & Finn, 1999). In a document published by the National Comprehensive Center for Teacher Quality, a "highly qualified" teacher was defined by having met the following criteria: "(1) they have full state certification, (2) they hold at least a bachelor's degree, and (3) they have demonstrated subject-matter competency in each of the academic subjects they teach" (Goe, 2006, p. 3). The article continues by presenting a "comprehensive definition of "highly qualified," a definition that expands on the first three criteria. The additional criteria included: "... (4) at least three years of classroom teaching experience as a teacher of record; (5) context-specific qualifications matched with teaching assignment; and (6) valid, reliable, and fair evidence on performance as a classroom teacher" (p.3). Research on teacher quality has been consistent; however, that determining teacher quality is measured by gains in student achievement and student outcomes (Goldhaber & Anthony,

2004; Rivkin, Hanushek & Kain, 2005). Moreover, there is little disagreement that improving educational quality relates to good teaching and that the means to achieving genuine school improvement is dependent on strengthening the profession (Olson, 2008; Simpson, LaCava & Graner, 2004). While numerous factors impact student outcomes and achievement, the most influential and consistent factor is the classroom teacher (Clotfelter, Ladd & Vigdor, 2004; Stronge & Tucker, 2000). Yet, a comprehensive system for recruiting, training, supporting and evaluating good teachers is noticeably absent in public education (Olson, 2008).

Manifest in the NCLB legislation was the directive that every classroom must employ a “highly qualified teacher” by the 2005-2006 school year (Berry, 2002; No Child Left Behind, 2001a; United States Department of Education, 2004). NCLB articulated a definition for “highly qualified” that states that must satisfy federal guidelines: “to be highly qualified, a teacher must (1) hold a bachelor’s degree, (2) hold a certification or licensure to teach in the state of his or her employment, and (3) have proven knowledge of the subject he or she teaches” (United States Department of Education, 2004). Consequently, NCLB delineated that “highly qualified” was to be defined by state teacher licensure; teachers must pass state licensing examinations in order to meet the federal standard. Measuring the actual skills and attributes that define teacher quality has proven to be difficult, and little evidence has been presented supporting the efficacy of existing state processes of teacher licensure and certification as a means to distinguish high and low-quality teachers (Angrist & Guryan, 2004; Center for Analysis of Longitudinal Data in Education Research, 2007 ). State licensure exams are typically focused on subject-area knowledge (Berry, 2002; Keller, 2007), and a single

pen-and-paper test (Center for Analysis of Longitudinal Data in Education Research, 2007). The Southeast Center for Teaching Quality (SETCQ) in a 2002 Title II report, pointed out that “teaching quality must focus primarily on why kids learn or why they do not learn... [teaching is] also about the students, their achievement, and the context, environment and surroundings of the students and the schools in which they are learning” (p.8). Moreover, because licensure requirements are left up to individual state departments of education, interpretations of “highly qualified” in each state have been numerous and varied (Baratz-Snowden, 1993). For example, Michigan has required “that a person employed in an elementary or secondary school with instructional responsibilities shall hold a certificate, permit, or vocational authorization valid for the position to which he/she is assigned” (Michigan Board of Education, 2003). Louisiana “currently issues different standard teaching certificates to persons who have completed a state-approved teacher education program (through a traditional or alternative approach) and who earned a degree from a regionally accredited institution of higher education or an approved private provider” (Louisiana Department of Education, 2003; p. 2). In Florida, “full state certification” meets the NCLB highly qualified requirements; however, “...full state certification is a valid Florida Temporary Certificate or a valid Professional Certificate,” and a teacher is defined as “new” only if hired after the start of the school year (Cox, 2002, p. 2). The multiplicity of state requirements, licensure processes and certification regulations has deemed it difficult for all teachers in all classrooms to be in compliance, a reality that has resulted in state measures for temporary, alternative and/or emergency certification (Better teachers, better schools, in press).



While NCLB utilizes state licensing credentials, “Having a license to teach doesn’t really make you a good teacher,” according to Robert Yinger, research director of the Teacher Quality Partnership (Jacobson, 2007, p. 13). Teacher characteristics that are typically used for credentialing purposes, such as certification and licensure, have not been strongly correlated with gains in student learning (Goldhaber & Brewer, 2000; Goldhaber & Anthony, 2004). Furthermore, in a study of 5<sup>th</sup> graders in 20 states, anecdotal observations of those students who were taught by teachers deemed “highly qualified” revealed little engagement beyond basic skill seatwork (Jacobson, 2007). One of the authors of the study, Robert Pianta of the University of Virginia at Charlottesville stated, “This pattern of instruction appears inconsistent with aims to add depth to students’ understanding, particularly in mathematics and science” (p.13). Research reports from the Third International Mathematics and Science Study (TIMSS) indicated that professional development and better teacher preparation and education are needed; class size, higher standards and accountability reforms are not enough to improve student achievement (Stigler & Hiebert, 1999). Teachers met credentialing standards, but their classrooms, even if emotionally positive, were mediocre in terms of quality of instructional support” (p. 13). Yinger, a former dean of education at Baylor University, explained that the use of the phrase “highly qualified’ can be misleading to parents who assume their child’s teacher is exceptional (p. 13) when he or she may lack the required credentials. Therefore, it has been clear that individual teachers matter for student achievement, but teacher certification and/or licensure as an indicator of teacher quality is not directly correlated to teacher effectiveness (Darling-Hammond & Youngs, 2002).

Teacher education and preparation as a component of teacher quality has been thoroughly analyzed (Darling-Hammond & Youngs, 2002). Included in the 2002 article in *Educational Researcher*, the authors cited 57 studies indicating “a relationship between teacher education and teacher effectiveness” (p.14). Hanushek (1992) reported that the impact of a highly qualified teacher is considerable and can account for as much as a full year of learning growth. Moreover, in the climate of standards-based reform, studies have consistently revealed that student achievement cannot be increased unless an investment in teacher quality is accorded the same import as high standards, assessment and accountability (Andrew & Schwab, 1995).

While most states require prospective teachers to have a major, or the equivalent, in the subject they plan to teach, only a very few require some form of testing in how to actually teach that subject (Olson, 2008). This pattern continues once teachers are in classrooms. Ongoing teacher evaluation is critical to ensuring the strength of both teaching as a profession and promoting student achievement but there are few state programs that are consistent in this process. Most states require some mode of formal evaluation, but only 12 require this process be performed annually, and only 12 require that teacher performance evaluation is fixed to student achievement. Further, barely half require that those performing the evaluation have training in how to accomplish such observations (2008).

While research that defines teacher quality has been inconsistent (Berry, Hoke & Hirsch, 2004; Darling-Hammond & Sykes, 2003; Vandevort, Amrein-Beardsley & Berliner, 2004), and the identification of measures of teacher quality has been complex and varied (National Board for Professional Teaching Standards, 2006), research has

been consistent that determination of teacher quality is measured by gains in student achievement and student outcomes (Goldhaber & Anthony, 2004; Rivkin, Hanushek & Kain, 2005; Rockoff, 2004). The impact of teacher quality was consistently greater on poor, minority and academically low-performing students (Darling-Hammond, 2000; Haycock, 2003; Sanders & Rivers, 1996). There has been little disagreement that improving educational quality equates to good teaching and that the means to achieving genuine school improvement is dependent upon strengthening the profession. (Olson, 2008; Simpson, LaCava & Graner, 2004). Hanushek (1992) reported that the impact of a highly qualified teacher is considerable and can account for as much as a full year of learning growth. Additional empirical evidence reported that raising teacher quality may be a principal factor in improving student outcomes (Rockoff, 2004). Moreover, in the climate of standards-based reform, studies have consistently revealed that student achievement cannot be increased unless an investment in teacher quality is accorded the same import as high standards, assessment and accountability (Andrew & Schwab, 1995).

#### National Board for Professional Teaching Standards

Following the 1983 publication of *A Nation at Risk: The Imperative for Educational Reform*, Albert Shanker, in 1985, then president of the American Federation of Teachers, urged the formation of a board for teacher standards and evaluation (National Board for Professional Teaching Standards, 2007c). The 1986 response to *A Nation at Risk* by the Carnegie Forum on Education and the Economy, *A Nation Prepared: Teachers for the 21<sup>st</sup> Century* (Steiner, 1995), recommended that a National Board for Professional Teaching Standards (NBPTS) be established in order to ascertain and institute criteria for teacher excellence. Thus in 1987, the NBPTS, co-sponsored by

the American Federation of Teachers (AFT) and the National Education Association (NEA) (Goldberg, 2001), began the development of national teacher certification, a process that eventually included a minimum of three years of classroom teaching experience, a portfolio, video of classroom practice, and examination (National Board for Professional Teaching Standards, 2007a). NBPTS applied the term *certification* to refer to “a process for conferring distinction upon those who meet [those] demanding standards...” (Baratz-Snowden, 1990, ¶4), and the certification process was based on the belief that those characteristics that support the success of experienced teachers could be both identified and measured (Goldhaber & Anthony, 2007).

In 1989, the NBPTS issued a policy statement, *What Teachers Should Know and Be Able to Do* that formed the foundation for credentialing standards for National Board Certification of teachers. The policy position was indicated in five core propositions of the NBPTS: 1) teachers are committed to students and their learning; 2) teachers know the subjects they teach and how to teach those subjects to students; 3) teachers are responsible for managing and monitoring student learning; 4) teachers think systematically about their practice and learn from experience; and 5) teachers are members of learning communities (National Board for Professional Teaching Standards, 2007b). At its inception, the NBPTS intended the certification process to consist of three parts. The first part identified the standards of excellence that must be met by candidates in each certification field; the second part recognized the exemplary practices that would measure those standards; and the third part emphasized the professional development that would ultimately lead to practices that signify highly accomplished teaching (Baratz-

Snowden, 1993). According to the NBPTS website, the organization's official mission statement is

...to advance the quality of teaching and learning by:

- Maintaining high and rigorous standards for what accomplished teachers should know and be able to do
- Providing a national voluntary system certifying teachers who meet these standards
- Advocating related education reforms to integrate National Board Certification in American education and to capitalize on the expertise of National Board Certified Teachers. (National Board for Professional Teaching Standards, 2008b, ¶1).

Not specifically indicated as an organizational goal, the NBPTS also advocates cooperation with other education reform organizations for the purpose of school improvement through an increase of highly qualified teachers (Rotberg, Futrell & Lieberman, 1998). Absent from the mission is a focus on student achievement and outcomes (Vandevoort, Amrein-Beardsley & Berliner, 2004).

Between 1991 and 1996, NBPTS commissioned both assessment and technical development groups to advise and design the development of NBPTS assessment for the certification process. In 1996, the contract for assessment was awarded to Educational Testing Service (ETS) with assessment administration services provided by Sylvan Learning Centers across the country (National Board for Professional Teaching Standards, 2006), an agreement that remained intact until 2008 when it was awarded to Pearson PLC for an undisclosed contractual amount (Keller, 2008). Currently, NBPTS offers 25 certificate fields, with an eventual goal of 30 (Baratz-Snowden, 1990), in several subject areas and student age levels including:

- Art
  - Early and Middle Childhood
  - Early Adolescence through Young Adulthood

- Career and Technical Education  
Early Adolescence through Young Adulthood
- English as a New Language  
Early Adolescence  
Adolescence and Young Adulthood
- English Language Arts  
Early Adolescence  
Adolescence and Young Adulthood
- Exceptional Needs Specialist  
Early Childhood through Young Adulthood
- Generalist  
Early Childhood  
Middle Childhood
- Health  
Early Adolescence through Young Adulthood
- Library Media  
Early Adolescence through Young Adulthood
- Literacy: Reading – Language Arts  
Early and Middle Childhood
- Mathematics  
Early Adolescence  
Adolescence and Young Adulthood
- Music  
Early and Middle Childhood  
Early Adolescence through Young Adulthood
- Physical Education  
Early and Middle Childhood  
Early Adolescence through Young Adulthood
- School Counseling  
Early Adolescence through Young Adulthood
- Science  
Early Adolescence  
Adolescence and Young Adulthood

- Social Studies  
Early Adolescence; Adolescence and Young Adulthood
- World Languages other than English  
Early Adolescence through Young Adulthood (National Board for Professional Teaching Standards, 2008a)

The age categories indicated by NBPTS were as follows:

- Early Childhood: 3-7
- Middle Childhood: 7-12
- Early & Middle Childhood: 3-12
- Early Childhood through Young Adulthood: 3-18+
- Early Adolescence: 11-15
- Adolescence and Young Adulthood: 14-18+
- Early Adolescence through Young Adulthood: 11-18+ (2008a)

The NBPTS certification process has been described by candidates as intense and grueling. In 2007, it was reported that only 4 of 10 teachers were successful (Rosenfeld, 2008) on their first attempt at certification, and the overall process can demand up to three years and several hundred hours to complete (National Board for Professional Teaching Standards, 2007c; Chaika, 2004). NBPTS certification has been reported to be more difficult to attain than state teacher licensure (Goldhaber & Anthony, 2007). Candidates are expected to submit four portfolio entries as a demonstration of their instructional practice. Three of the required portfolios focus on student work and include video documentation. The fourth portfolio provides documentation of the candidate's involvement in family, school and civic affairs as they impact student learning. In addition, candidates are tested per his or her certificate designation in six areas. These written examinations are administered at a variety of testing centers throughout the

United States (National Board for Professional Teaching Standards, 2008c). Scoring is determined by a panel of teachers trained by NBPTS for the purpose of assessment.

The NBPTS certification process is voluntary (Baratz-Snowden, 1990) and targets the goals of improved teaching skills, state-to-state mobility for teachers, improved teacher training, bringing esteem to the profession of teaching, and recognition of expert teachers (Chaika, 2004). Joseph A. Aguerrebere, President and Chief Executive Officer (CEO) for the NBPTS, stated, “These [NBCTs] teachers justify our belief that National Board Certification is creating a culture of professionalism in teaching comparable to what certification represents in medicine, law and other disciplines” (National Board for Professional Teaching Standards, 2007c). Of paramount importance to NBPTS is “improving student learning in American schools” (Rotberg, Futrell & Lieberman, 1998, ¶5). In addition, NBPTS seeks to foster school improvement by increasing the number of highly qualified teachers from traditionally underrepresented minority and ethnic groups.

The mission of NBPTS is,

...to advance the quality of teaching and learning by maintaining high and rigorous standards for what accomplished teachers should know and be able to do, providing a national voluntary system certifying teachers who meet these standards, and advocating related education reforms to integrate National Board Certification in American education and to capitalize on the expertise of National Board certified teachers. (National Board for Professional Teaching Standards, 2008b, ¶1)

The aforementioned core propositions and the stated goals of NBPTS clearly align with both federal legislation and public and private definitions of highly qualified. Harris Poll results in 2001 revealed the five top teacher qualities as defined by the American public:

- 1) ability to manage classrooms;
- 2) knowledge of subject;
- 3) understanding of how



students learn; 4) teacher training, and 5) ability to assess student learning (Southeast Center for Teaching Quality, 2002).

As an independent, nonprofit and non-governmental organization, the NBPTS is governed by a 64-member board of directors whose majority is comprised of classroom teachers (National Board for Professional Teaching Standards, 2008b; Rotberg, Futrell & Lieberman, 1998). At its inception, the NBPTS was partially subsidized with grants from the Carnegie Corporation of New York (over \$7 million); DeWitt Wallace-Reader's Digest Funds (over \$5.9 million) and \$15 million from the Federal government (Steiner, 1995). According to the NBPTS, through September 2006, the federal government has appropriated funding exceeding \$159 million, which accounted for 34% of the total initiative. The remaining \$278 million is subsidized by non-federal sources including state government programs and initiatives (National Board for Professional Teaching Standards, 2007c; State-Action Florida, 2005; Teaching Profession Committee, 2003).

The NBPTS and NBCTs have been recognized as a professional designation, but not replacing state licensure, for teachers in all fifty states and in the District of Columbia (Chaika, 2004; National Board for Professional Teaching Standards, 2007c), and through 2007, the NBPTS has certified 63,800 teachers (Viadero & Hanowar, 2008). Fifty-nine percent of all NBCTs are found in the southeastern United States (Southeast Center for Teaching Quality, 2002). Such broad participation by the southeastern states has been attributed to subsidies provided by districts to cover the cost of seeking NBPTS certification, a \$2,300 application fee, and the additional salary incentives once certification has been earned. Harris and Sass reported 544 districts nationwide provide such incentives which, along with government grants, have been estimated to yield \$600

million for the National Board (Goldhaber & Anthony, 2007; Center for Analysis of Longitudinal Data in Education Research, 2007). Salary incentives alone have been estimated to total \$1 billion per year (Center for Analysis of Longitudinal Data in Education Research, 2007; Podgursky, 2001).

Whether the NBPTS achieves its stated aims has been the subject of considerable debate. According to NBPTS, “The vast majority of the more than 150 reports, papers, and studies on National Board Certification have found that NBCTs make a significant and measureable impact in their schools” (2007c, p. 3). However, little quantitative evidence on the organization’s efficacy exists (Finn, 2003; Goldhaber & Anthony, 2007; Center for Analysis of Longitudinal Data in Education Research, 2007), and there remains a question whether the process of National Board Certification is an effective means of identifying teacher quality, or if it is simply one that strengthens the existing labor force within the particular commercial context of education (Goldhaber & Anthony, 2007). In a policy report for the North Carolina Educational Alliance, NBPTS was criticized for standards that were vague, lacking the specificity of knowledge or strategy that teachers can realistically utilize (Leef, 2003). Moreover, the process for NBPTS evaluation and certification has been criticized. Podgursky (2001) reported that those teachers who are certified by NBPTS are most likely to exhibit characteristics specifically favored by the Board, rather than effective teaching that results in increased student achievement. Rotberg, Futrell and Lieberman stated that National Board certification could have little long-term impact without the increase in the numbers of teachers participating and succeeding in the process. They also called for increased resources from

both departments of education and university teacher-training programs to support such participation (1998).

### NBPTS in Florida

Shortly after NCLB was authorized, the Southeast Center for Teaching Quality issued a report aimed at examining the efficacy of Title II grants awarded to eight southeastern states (2002). Title II grants, initiated in 1999, supported the development of teacher quality programs, and the report specified the monetary impact of these grants supported “strategies to ensure a competent, caring, qualified teacher for every child” (p. 4). The southeastern states, including Florida, faced serious challenges with providing enough highly qualified teachers. In the coming decade [2002-2012], the state of Florida will need to hire 162,000 teachers for its 67 counties (Southeast Center for Teaching Quality, 2002). The report outlined three areas of focus: 1) examination of a “comprehensive system of teacher development” (p.5); 2) the “untapped potential” of NBCTs; and 3) clarification of goals and outcomes, specifically that which would link teacher performance to student outcomes.

The fee schedule for teachers who wish to seek National Board Certification is as follows.

- Application Processing Fee: \$65; non-refundable
- Initial Fee (applied to the Assessment fee): \$500; non-refundable
- Assessment Fee: \$2,500 (National Board for Professional Teaching Standards, 2007a)

NBPTS accepts a variety of payment options. Financial assistance is available to Florida candidates via the *Dale Hickam Excellent Teacher Program* and monies from a Federal Subsidy grant from the US Department of Education. These monies subsidize 90% of the

fees for first-time Florida candidates (National Board for Professional teaching Standards, 2007a) and offer a \$150 incentive to help defray the cost of preparing the required portfolio. In addition, according to the Florida Department of Education's website (2008),

to be eligible to participate in the Dale Hickam Excellent Teaching Program, a teacher:

- must be employed full-time as instructional personnel within the meaning of Section 1012.01(2)(a)-(c), Florida Statutes, as reflected by contract, the school district's personnel salary schedule or the school district's approved staffing plan.
- engage exclusively in activities that further student instruction, for example, through advising, teaching and mentoring students and offering information resources to students.
- must teach students a majority of the time.
- complete the NBPTS online application and pay online the portion of the application fee for which the applicant is responsible
- demonstrate satisfactory performance on the most recent, regular annual performance appraisal conducted pursuant to Section 1012.34, Florida Statutes
- hold a valid Florida educator's certificate that has not been subject to discipline as the result of a final order of the Education Practices Commission after a formal, informal or show cause hearing or settlement agreement in the previous five years
- adhere to all school district, Department and NBPTS requirements, procedures and deadlines. (§1)

Florida NBCTs can expect a substantial monetary bonus for having earned the credential. Reported on the Monroe County School District website, Florida teachers can expect a 10% salary increase for the life of the National certificate and an additional 10% for the equivalent of 12 work days spent mentoring teachers who may or may not be National Board candidates.

Additionally, Florida has recognized National Certification as a means of having met state licensure requirements for those teachers who come from out-of-state ("Why

become a National Board Certified Teacher?” 2007). NBCTs are considered to be “highly qualified” as defined by the Florida Department of Education (National Board for Professional teaching Standards, 2007a) and supported by research conducted in Florida by the CNA Corporation (2004).

#### NBPTS and student achievement

NBPTS was founded on the belief that attributes that result in teacher efficacy and student achievement can be identified and mastered (Goldhaber & Anthony, 2004; National Board for Professional Teaching Standards, 2007b). In early 2002, NBPTS released a request for proposals in order to examine and explore the relationship between NBCTs and student achievement. This request resulted in 21 proposals selected for funding by the NBPTS (National Board for Professional Teaching Standards, 2006). Nationally, several studies report findings of the positive impact of NBCTs on student achievement measured through a wide variety of instruments (CNA Corporation, 2004; Goldhaber & Brewer, 2000; Jacobson, 2004; National Board for Professional Teaching Standards, 2004; Smith et al, 2005). In North Carolina, student gains on end-of-year reading and math tests produced by NBCTs surpassed those of non-NBCTs (Goldhaber & Anthony, 2004). Goldhaber and Anthony (2004) and Smith, Gordon, Colby and Wang (2005) also reported that even teachers who sought but failed to achieve NBPTS certification were more effective than non-NBPTS certified counterparts. Research commissioned by NBPTS and conducted by Arizona State University indicated that students of NBCTs scored higher on the Stanford-9 achievement test than students of non-NBCT counterparts (Manzo, 2004; National Board for Professional Teaching Standards, 2005e). In the Arizona study, four years of data on three measures of student

performance revealed that nearly 75% of students of NBCTs outperformed students of non-NBCTs (Vandevoort, Amrein-Beardsley, Berliner, 2004). Ninth and tenth grade students of NBCTs in Miami-Dade County schools in Florida recorded higher scores on year-end math tests than those students of non-NBCTs (CNA Corporation, 2004). In one particular Tennessee study, the researcher determined no significant gains in student achievement (Stone, 2002); however, in their review of that research, Vandevoort, Amrein-Beardsley & Berliner (2004) questioned the commonly-used value-added method for analysis in that study and stated,

With regard to the issue of consistency, we wondered why Stone did not make anything out of the fact that in the 23 comparisons of gains in mathematics for NBCTs vs. the average gain made by others in their grade, within their district, 15 (65%) of those comparison showed the NBCTs to be more effective. In reading, of the 29 comparisons, 18 (62%) favored the NBCTs. In language, of 29 comparisons, 16 (55%) favored the NBCTs. In social studies, of 25 comparisons, 14 (56%) favored the NBCTs. And finally, only in science was this trend reversed...For the most part, in most subject areas, the students of NBCTs scored higher than their peers in the same districts. (p. 16)

Correlation between NBPTS certification and student achievement has been consistently disputed as well (Bond, 2001; National Board for Professional Teaching Standards, 2006; Podgursky, 2001). In North Carolina, the state boasting the highest number of NBCTs, a large-scale study was conducted in Charlotte-Mecklenburg and Wake Counties, districts that represent a high concentration of NBCTs. Four years of data in reading and math were analyzed, and the researchers reported no significant differences in teacher efficacy for students of NBCTs versus those of non-NBCTs (Sanders, Ashton & Wright, 2005). Similar results were reported in Florida (Center for Analysis of Longitudinal Data in Education Research, 2007) and in the previously cited study in Tennessee (Stone, 2002). Measuring annual achievement, student progress

compared to the previous year, the researcher reported no differences in student gains and called for a suspension of public funding of NBCTs until adequate proof was presented that NBCTs were more effective (2002).

Critics of the National Board certification process also cited issues with internal validity when the research reported positive findings; gains in achievement were calculated against Board standards rather than external measures of validity (Goldhaber & Anthony, 2004; Podgursky, 2001). Moreover, in several instances, indicators of student outcomes and teacher effectiveness were based on results considered to be nebulous and difficult to measure (Leef, 2003; Podgursky, 2001). Such indicators include “exhibiting deeper learning outcomes” (Smith, Gordon, Colby & Wang, 2005, p. *xvi*); “differences in certain grades and subject areas” (Sanders, Ashton & Wright, 2005). The Sanders, Ashton and Wright study was commissioned by the NBPTS and revealed that students of NBCTs do not receive better quality teaching than those students of non-NBCTs; moreover, the study cited findings that were “overly optimistic” (p. 4) and based on an analytical model that did not account for a proper nesting structure of the data. Issues with statistical power were also cited in a 2003 study in which the outcome was reversed (Stephens, 2003). In that study, scores of students of NBCTs were compared to non-NBCTs and were found to bear no statistically significant differences.

At the time of Goldhaber and Anthony’s 2004 study, only two small studies attempted to link NBPTS certification directly to student achievement outcomes. Studies conducted since 2004 have also reported mixed effects. In central Florida, 3<sup>rd</sup> and 4<sup>th</sup> grade scores on the FCAT revealed no significant difference between students of NBCTs and non-NBCTs (Vitale, 2008). A large-scale study from The College of William and

Mary commissioned by NBPTS revealed students of NBCTs did not demonstrate significantly greater progress when compared to students of non-NBCTs (National Board for Professional Teaching Standards, 2006). Similar results were detailed in a state-wide study in Florida conducted by the Center for Analysis of Longitudinal Data in Education Research (CALDER) (2007). In addition to the examination of the impact of NBCTs on test scores, the researchers in the CALDER study examined the productivity of NBCTs and whether NBPTS certification was effective for the identification of “high quality” teachers.

Overall, there has been repeated critique of the NBPTS certification process with regard to the public and private monies allocated versus hard evidence that having the certification makes a significant and positive difference in student achievement (Leef, 2003; Vandevort, Amrein-Beardsley, Berliner, 2004). Moreover, inconsistencies in research that convey impacts of NBCTs on student achievement, both negative and positive, have been widely reported and have been the impetus for continued study (Archer, 2002; Keller, 2002). Harris and Sass, researchers for CALDER, have cited concerns with less rigorous methodology that could account for overly positive results when analyzing student achievement data (2007). McCloskey, Stronge, Ward, Tucker, Howard, Lewis and Hindman noted that comparisons between NBCTs and non-NBCTs in the first phase of their research did reveal slightly higher mean scores from the students of NBCTs; however, the low sample size of the NBCTs resulted in unclear implications (National Board for Professional Teaching Standards, 2006). The Education Commission of the States (ECS) claimed that results of a Tennessee study reporting no significant effects on student achievement by NBCTs were “faulty” (Zehr, 2002, p. 12).



Vandevoort, Amrein-Beardsley, & Berliner concurred with Zehr's findings, indicating that the determination of teacher effectiveness using the value-added method is "seriously flawed" (p. 16).

In spite of such findings, gains in student achievement have been reported and found to be to be greater among poor and minority students of NBCTs. In another North Carolina study, student gains for low-income students of NBCTs were greater than the gains posted by non-low income students. The student gains in reading among lower income students were 15 percent higher when taught by an NBCT than the average of 7 percent found among other students (*American Teacher*, 2004). In the CNA study conducted in Miami, Cavalluzzo detailed that testing gains among 9<sup>th</sup> and 10<sup>th</sup> graders were more significant among special needs and minority students, particularly African-Americans and Hispanics. Harris and Sass, however, conducted a sophisticated analysis that examined teacher effects in the pre- and post-NBPTS certification stage and included a wide range of student subjects of varying demographic profiles (Center for Analysis of Longitudinal Data in Education Research, 2007). Pre- and post-NBPTS certification data was examined in order to account for inherently different teaching practices. Data from that study revealed impacts from the pre-certification stage of NBCTs were significantly higher for black students and students receiving free or reduced lunch program benefits. Post-certification data revealed differences that were only significant for those students who initially scored higher (2007).

#### Teacher quality and teacher distribution

Research has consistently documented that the most qualified teachers are least likely to be found in schools teaching poor, minority and low-performing students

(Darling-Hammond, 2000; Haycock, 2003; Humphrey, Koppich & Hough, 2005; National Comprehensive Center for Teacher Quality, 2006; Olson, 2008; Rotherham, 2005). However, it has been equally consistent that when poor, minority, and low-performing students have a quality teacher, the resultant improvement in student achievement is significant (Kanstoroom & Finn, 1999). Kerr and Berliner (2003) reported in a May 2003 article that only 22% of Chicago's lowest-performing schools were certified to teach. Similar data were reported in New York, where less than 50% of the teachers in urban poor schools were certified to teach (Lankford, Loeb & Wycoff, 2002).

Attrition of high quality teachers in poor, minority and low-performing schools is also problematic (Darling-Hammond, 2003). Teacher turnover at such schools is significantly higher than those of schools where the populations are wealthier, non-minority and suburban (Hanushek, Kain & Rivkin, 1999; Ingersoll, 2001). Similar effects are evident within districts as well. In a Texas study, it was determined that strong evidence supports that when teachers move within districts, they do so in order to teach higher-performing, higher-SES, and non-minority students (Hanushek, Kain & Rivkin, 2004).

The distribution of NBCTs has followed this pattern; NBCTs were less likely to be employed in schools with high percentages of poor, minority and low-performing students (Goldhaber & Anthony, 2004; Humphrey, Koppich & Hough, 2005). Although a recognized goal of NBPTS is to provide all students with "access to National Board Certified Teachers" (National Board for Professional Teaching Standards, 2007f, ¶18), Goldhaber, Choi and Cramer (2007) stated, "...we might actually observe that NBPTS certification exacerbates existing inequalities in the distribution of teachers across

districts, schools, and classrooms” (p.162). Vandevoot, Amrein-Beardsley and Berliner (2004), reported that even within poor, minority and low-performing schools, principals or building administrators seldom deliberately assign NBCTs to the most disadvantaged students within the school.

In the Humphrey, Koppich and Hough (2005) study, which examined the distribution of NBCTs across districts and schools in several states, it was noted that the state of California was the exception to the above pattern. While all other states examined in the study revealed NBCTs were underrepresented among poor, minority and low-performing students, the reverse was true in California. However, NBCTs in California earned substantial salary incentive for employment in such schools (p. 13). Goldhaber, Choi and Cramer (2007) analyzed the distribution of NBCTs in North Carolina, the state which reported the highest overall number of NBCTs in the nation. The results indicated that as the number of NBCTs increased, the equity of their distribution decreased. The researchers observed that there were also variances within districts across schools and within classrooms in schools. Consistently, the researchers found that NBCTs are more likely to be employed in schools where there are fewer minority students, fewer students receiving the federal free or reduced lunch program and fewer students performing below grade level (2007). In a result described as “striking,” the researchers reported, “White students are approximately 30 percent more likely than minority students to have an NBCT as a teacher” (p.167).

The data were consistent in Florida. According to the Council for Education Policy, Research and Improvement (CEPRI), a 2003 policy report entitled “Florida Teachers and the Teaching Profession” stated, “In numerous cases, students who have the

greatest need for the most highly skilled teachers are educated in schools that are most likely to employ under-prepared and inexperienced teachers, as these school typically hire a disproportionate share of new teachers” (p. 8). Data were also consistent in Florida when reporting distribution of NBCTs among poor and minority students. Harris and Sass revealed in the CALDER study that teachers either holding NBPTS certification or who will seek the certification are less likely to teach black students than non-NBCTs or those who will not seek NBPTS certification (2007).

Humphrey, Koppich and Hough (2005) compared the distribution of NBCTs in Los Angeles [California] Unified School District to Miami-Dade County Schools in Florida, a district with a similar demographic profile. The study revealed that California was exceptional with regard to a more equitable distribution of NBCTs and attempted to compare another large, urban school district with similar demographics. The researchers determined “...Dade County does have a large number of NBCTs in its lowest-performing schools, but its NBCTs are underrepresented in the bottom two deciles of performance” (p. 14). It was reported in that study that California compensates NBCTs based on their employment in districts representing the greatest student need.

Inequities regarding the distribution of highly qualified teachers have presented a considerable challenge for the implementation of NCLB. While the legislation is clear in that every classroom must have a “highly qualified teacher” by the 2005-2006 school year (Berry, 2002; No Child Left Behind, 2001a), the evidence that every child has equal access to such teachers remains elusive.

## Critical social theory in education

Critical Social Theory (CST) is related to Critical Theory (CT), which is rooted in the function of analysis and debate dating to Plato and the advent of Greek thought. CT is the practice of critique as a driving process for investigation (McCarthy, 1991). The term “critical” is reflective of the Greek verb *krinein*, meaning to discern, to reflect and to judge; the Greek noun *theoria* refers to reflection and contemplation (Kellner, 2003). In CT, through the function of critique, philosophy, reason and literature are subject to discourse, and reflective of the Socratic practice of observing life through examination of values, culture, morals and institutions (Kellner). Historically, CT draws from preceding schools of critical thought including those of Immanuel Kant in the 18<sup>th</sup> century and Karl Marx in the 19<sup>th</sup> century (Bowles & Gintis, 1979; Kellner, 2003; Leonardo, 2004). As part of the Enlightenment, Kantian thought encouraged the questioning of standards of ethics, morality and reason and required thoughtful reflection on one’s own assumptions, while Marxism challenged existing structures within the context of dominant social systems and economic principles (Kellner, 2003). It was not until the 20<sup>th</sup> century that Max Horkheimer of the Frankfurt School of Social Science in Frankfurt, Germany, examined existing structures of authority, cultural dominance and power during the Second World War that CT included modern concerns relative to the transformation of society, thus becoming “social” (Leonardo, 2004). Horkheimer, a Jew, revealed the deep impact of Nazi Germany in his writings during that time, and of how such horror could be borne of, and exist in, a reasonable society. He contended that society must ever be criticized in order to prevent such oppression and atrocities. Both CT and CST are known

for the use of criticism and “its ability to advance research on the nature of oppression and emancipation” (p.11).

Nevertheless, CST was not fully recognized in educational parlance until Paulo Friere’s *Pedagogy of the Oppressed* (Friere, 1998). In education, Friere is considered CST’s “inaugural philosopher” (McLaren, 1999), and he (Friere) was “without question the most influential theorist of critical or liberatory education” (Weiler, 1994, p.13). As an educator working with poor and dispossessed people in Brazil, Friere was arrested and exiled, considered a threat to the prevailing government and social authority. By calling critical attention to the controlling nature of the dominant culture over oppressed people, Friere sought to end what he referred to as “the culture of silence” (Friere, 1998, p.14). Accordingly, the function of CST became the vehicle for seeking positive transformation among social structures, including the structure and system of education.

Critical social theory has been used to critique many aspects of the educational system and its processes (Leonardo, 2004). It “encourages the production and application of theory as part of the overall search for transformative knowledge” (p.11). Leonardo continued,

Critical social theory is a multidisciplinary knowledge base with the implicit goal of advancing the emancipatory function of knowledge. It approaches this goal by promoting the role of criticism in the search for quality education. A critical social theory-based movement in education highlights the relationship between social systems and people, how they produce each other, and ultimately how critical social theory can contribute to the emancipation of both. (p.11)

Numerous educational processes have been critiqued for the purpose of systemic reformation. Apple examined curriculum and curriculum development (Apple, 2004); Annette Lareau analyzed impacts linked to parental involvement (Lareau, 2000); Collette Dowling challenged the notion of feminine frailty (Dowling, 2000), and Jonathan Kozol

has continued to report deplorable conditions in schools serving largely poor and minority populations (Kozol, 1991; 2005). However, similar to the historical progression of CST, the progression of public education as a dominant social structure must likewise be examined.

### The educational system and hegemony

The need for public schooling was established in the tradition of democracy as set forth by Thomas Jefferson: “If a nation expects to be ignorant and free, it expects what never was and never will be” (Liberty-Tree.ca, 1998). The ability to read printed materials at the time of the American Revolution was fundamental to its ultimate success (Cremin, 1970). Cremin noted three purposes for education in colonial America: 1) participation in public affairs; 2) religious authority and domination; and 3) individual improvement in a growing economy. Cremin emphasized, however, although education was rooted in the need for social mobility, it was not yet connected to the consumerist emphasis on gaining employment. Rather, social mobility was based on one’s possession of a deeper understanding of the world in order to be considered a “gentleman,” an attitude borne during the Renaissance (Boyles, 1998). While Jefferson is revered as both founding father and colonial gentleman, Joel Spring noted that a closer examination of history revealed a distinct, tiered, social hierarchy of Jeffersonian schooling. “Higher education” was for the landed or privileged class in order to train future leaders; “common” education was for the common folk, the worker/farmer (2001). Educating a non-white immigrant population was not a factor during Jefferson’s time. The education of African slaves was forbidden in many states, and other ethnic groups were simply not considered by the predominant white, male, English-speaking culture. Although

historically portrayed as an equalizing measure for citizenship in a democracy, inherent in the new system was a clearly defined social order.

Horace Mann, the “Father of American Education,” believed “education, then, beyond all other devices of human origin, is the great equalizer of the conditions of men – the balanced wheel of social machinery” (United States Department of Education, 1848, ¶6). Education was presented as the vehicle for achieving social equality. Yet, while Mann believed in compulsory education; it was “...for the creation of wealth, then, for the existence of a wealthy people and a wealthy nation, - intelligence is the grand condition” (¶7). Mann irrevocably linked schooling to the economic power of wealth and social class. In this tradition, the historically stated aims of public education and the ideology by which the system was conceived became contradictory; one sought equality, citizenship and personal improvement, and the other encouraged the growing market ideology of the Industrial Revolution. Neither reflected the parallel struggle for equality following the Civil War that excluded entire ethnic groups from participation in active citizenry or social position. Through the Supreme Court ruling *Plessy v. Ferguson*, (1896), “separate, but equal” became the acceptable foundation for the existence of a duality, in both American society and in American schools (Kozol, 2005).

Herbert Kliebard, in “The Rise of Scientific Curriculum Making and its Aftermath” (1975) recognized the consumerist nature of the organization of school within the theoretical framework defined by Franklin Bobbitt and W.W. Charters in the early 20<sup>th</sup> century. The “scientific” structure of schooling, as defined by Bobbitt and Charters, was largely based on production and productivity as a reflection of the industrial labor markets of that time. Kliebard stated, “...he [Bobbitt] provided the professional educators



in the twentieth century with the concepts and metaphors – indeed, the very language – that were needed to create an aura of technical expertise without which the hegemony of professional educators could not be established” (p.28).

The outcomes of that dual, market-based system were articulated by John Dewey also in the early twentieth century. Dewey discussed “collateral learning,” the hidden curriculum of attitudes and beliefs that often contradicted the more explicit curriculum in schools (Dewey, 1938, p.48). He challenged the existing consumerist structure of schooling which emphasized advancement of the individual over the collective good. Dewey’s views challenged the established order in a debate that continued throughout the century. Dewey’s pro-democracy views and education’s role in fostering democracy and equality were reflected in the Supreme Court’s overruling of *Plessy v. Ferguson* in 1954.

The 1954 Supreme Court decision *Brown v. Board of Education* determined that separation of the races within the facility of schools was “inherently unequal.” However, it was not until the Civil Rights Act (1964) that the notion of equal access and discriminatory practices, including those taking place in the schools, could be challenged in the courts. Yet, the assumption that the Civil Rights Act “ended” segregation, and the struggles associated with it, is false (Kozol, 2005). The end of the 20<sup>th</sup> century and the beginning of the 21st century reflect a return to segregative principles and programs aimed at preserving the social status quo. Hidden in the rhetoric of national standards and accountability, for the purpose of leaving no children behind in terms of educational opportunity, is a curriculum and framework for schooling that reveals the hegemony inherent in the system.

Michael Apple referred to such hegemony within education as a means of perpetuating a caste structure that keep the dominant social structure intact. In *Ideology and Curriculum* (2004), Apple detailed the various ways in which schools either advertently or inadvertently serve to propagate social stratification. He cites Italian Marxist Antonio Gramsci who purported that dominant groups maintained control over subordinate groups through the structure of established and accepted social institutions. Gramsci contended that:

...thinking of schools as mechanisms of cultural distribution is important since... the critical element in enhancing the ideological dominance of certain classes is the control of the knowledge preserving and producing institutions of a particular society. (p.25)

Apple emphasized the role of education as an agent for the maintenance of hegemony (Apple, 2004). Education has become the foundation for the relationship between culture and economic structures. Apple has contended that the actual bureaucracy of school – the institution of education itself – is reflective of that consumerist ideology of society. He stated, “In effect, for this more critical tradition, schools latently recreate cultural and economic disparities, though this is certainly not what most school people intend at all” (p. 32). He continued, “schools also play a rather large part in distributing the kinds of normative and dispositional elements required to make [this] inequality seem natural” (p. 41).

Apple’s contentions echo the work of George Counts. Counts’ background as a sociologist had a decided impact on his educational philosophy. First presented in 1924, *The Principles of Education* examined the existing process of American education (Gutek, 1970) and largely followed the child-centered, social progressive approach of John Dewey. This work eventually led to Counts’ belief that schools, and ultimately

teachers, should lead societal change rather than simply follow existing tenets of society. Viewed through the historical context of the time, Counts, like Dewey, saw social reconstruction clearly aimed at the advancement of democratic values of social equality, specifically the social welfare of those groups considered inferior, the poor, minorities and immigrants. In *Dare the School Build a New Social Order?* first published in 1932, Counts emphasized that students should be educated to assist in the transformation of society and that schools should prepare students to that end (Counts, 1932). He also recognized the unintentional impact of the hidden curriculum embedded in teacher bias and urged educators to do so. Counts declared, “Failure to do this involves the clothing of one’s own deepest prejudices in the garb of universal truth” (p. 12), thus perpetuating the existence of social injustice.

The stratification previously detailed by Gramsci and Apple is due, in large part, to a “hidden curriculum.” Apple also recognized that the notion of a “hidden curriculum” was not new.

“In fact, as Stanwood Cobb, one of the early organizers of the Progressive Education Association, has stated, many progressive educators throughout the early decades of this century were quite cautious about even raising the question of what actual content should be taught and evaluated in schools. These progressive scholars preferred to concern themselves with teaching methods in recognition of the fact that deciding what was taught was primarily a political issue.” (p.27)

Later, Vic Kelly, in *The Curriculum: Theory and practice*, also defined the concept of “hidden curriculum;” he posited the hidden curriculum as what students learn “because of the way in which the work of the school is planned and organized but which are not in themselves overtly included in the planning or even in the consciousness of those responsible for the school arrangements” (Kelly, 1999, p. 8). Evident in the

previous chronology is the continued recognition that a hidden curriculum exists, and that its covert nature is as powerful as the obvious stated aims of the official curriculum. Included in the hidden curriculum is the nature by which instructional resources, including teachers, are distributed to all (Kozol, 2005).

### Summary

Historically, federal involvement in education has emphasized concerns for minorities and the poor. Following the pattern of earlier legislation such as *Plessy v. Ferguson*, *Brown v. Board of Education*, and the *Elementary and Secondary Education Act of 1965* (ESEA), *No Child Left Behind Act of 2001* (NCLB) was also concerned that "...too many of our neediest children are being left behind..." (No Child Left Behind, 2001a, ¶1). Thus, NCLB accountability standards were designed to address the achievement gap that has existed between the highest and lowest performing students and schools with the intention of closing that gap (No Child Left Behind, 2001c). Those low performing students and schools were typically found among poor and minority populations, a consistency that existed when NCLB was authorized ("Congress," 2001).

Empirical evidence has reported that raising teacher quality may be a principal factor in improving student outcomes (Rockoff, 2004). Moreover, in the climate of standards-based reform, studies have consistently revealed that student achievement cannot be increased unless an investment in teacher quality is accorded the same import as high standards, assessment and accountability (Andrew & Schwab, 1995). The impact of teacher quality has been reported to be greater on poor, minority and academically low-performing students (Darling-Hammond, 2000; Haycock, 2003; Sanders & Rivers, 1996). Consequently, federal and state legislation has sought ways of establishing

standards for improving teacher quality, efforts that meet ever-increasing demands for accountability with the understanding that improvements in teacher quality would also serve to close the achievement gap among poor and minority students. NCLB established such directives in 2001.

In a concurrent timeline, the NBPTS sought to bring higher standards for teacher quality via a national certification process. Joseph A. Aguerrebere, President and Chief Executive Officer (CEO) for the NBPTS, stated, "...National Board Certification is creating a culture of professionalism in teaching comparable to what certification represents in medicine, law and other disciplines" (National Board for Professional Teaching Standards, 2007c). Moreover, just as federal involvement through educational legislation has traditionally sought to close the achievement gap among poor, minority and low-performing students, "The National Board is committed to ensuring that...all students have access to National Board Certified Teachers" (National Board for Professional Teaching Standards, 2004f, p. 6, ¶18). This goal is supported by research that has reported gains in student achievement that were greater among poor and minority students of NBCTs. Both the federal government and the NBPTS thus provided a foundation for defining "highly qualified" teachers and for ensuring that all students would have the opportunity for access to these teachers. Furthermore, states, districts and schools are obligated to provide evidence of progress toward the equitable distribution of highly qualified teachers (National Comprehensive Center for Teacher Quality, 2006; No Child Left Behind, 2001c).

Florida has faced serious challenges with providing enough highly qualified teachers to meet the growing demands placed on its schools. This demand has included

an ever-growing population of poor and minority students, a group that has been reported as consistently low-performing. Florida has also recognized NBPTS certification as a means of meeting state licensure requirements for those teachers who come from out-of-state (“Why become a National Board Certified Teacher?” 2007) and considers NBCTs to be “highly qualified” as defined by the Florida Department of Education (National Board for Professional teaching Standards, 2007a). Because of such recognition, Florida has been ranked second only to North Carolina for the number of NBCTs employed in its schools. In Florida, as in other states, research on the student achievement of students of NBCTs has revealed limited, if any, overall gains except among the poor, minority and/or academically low-performing students. Within that demographic, gains among students of NBCTs in Florida were found to be significant.

Fundamentally, it has appeared evident that the system of public education has sought to equalize academic opportunity and student achievement among all races and classes. However, while NCLB is clear in that every classroom must have a “highly qualified teacher” by the 2005-2006 school year (Berry, 2002; No Child Left Behind, 2001a), the evidence that every child has equal access to such teachers remains elusive. These inequities were consistent when those teachers were NBCTs. Inequities regarding the distribution of highly qualified teachers have presented a considerable challenge for the implementation of NCLB and presented an opportunity for deeper examination of such the educational system as a dominant social structure, an examination in the tradition of Critical Social Theory.

Michael Apple referred to hegemony within education as a means of perpetuating a caste structure that keep the dominant social structure intact. In *Ideology and*

*Curriculum* (2004), he detailed the various actions through which schools both advertently or inadvertently serve to propagate social stratification and labeled these actions as part of a “hidden curriculum.” Included in the hidden curriculum is the nature by which instructional resources, including teachers, are distributed to all (Kozol, 2005). Hence, the inequitable distribution of “highly qualified” teachers has provided the opportunity to identify such as part of that “hidden curriculum.” Within the rhetoric of national standards and accountability, for the purpose of leaving no children behind in terms of educational opportunity could the distribution of “highly qualified” teachers reveal hegemony inherent in the system?

## CHAPTER THREE: METHODOLOGY

The purpose of this study was to examine the distribution of NBCTs across a central Florida school District in order to determine whether schools with higher populations of poor, minority and academically low-performing students were just as likely to have access to an NBCT as students in those schools that are not represented by higher percentages of poor, minority and low-performing students. In addition, the researcher sought to identify relationships, if any, among the stated demographic variables and those teachers with NBPTS certification. The following questions guided the research:

1. To what extent is the distribution of NBCTs equitable across a specified central Florida school district?
2. To what extent are NBCTs employed in classroom instructional positions in a central Florida school district?
3. To what extent are NBCTs employed in poor and minority schools in a central Florida school district?
4. To what extent are NBCTs employed in academically low-performing schools in a central Florida school district as defined by the A+ Accountability Plans for Florida schools?

### Participants and site selection

The participants in this study were collected from a selected central Florida school district. In this specific district, there were 120 NBCTs working in a variety of subject areas, grade levels and non-classroom duties. Of the 120, 113 reported to the District Office for Professional Development for the purpose of receiving the additional salary stipend that is awarded to NBCTs; the difference was attributed to those NBCTs that are employed in administrative capacities without direct instructional responsibilities. As administrators, they are not entitled to the additional compensation and are therefore not required to report to that Office. Of the 113 non-administrative NBCTs, 19 were certified



during the 2007-2008 school year and were not included in the study as they did not begin the school year with that status. The researcher used only those NBCTs that began the school year, thus accounting for choice of location and employment responsibilities once the certification had been achieved. Thus, the total number of NBCTs used for the study was 94, with 59 of those employed in positions involving full-time classroom contact with students.

The data also consisted of the percentages of poor and minority students enrolled in each District school. The percentage of poor students attending each school was based upon the number of students who are eligible for the Federal Free and Reduced Lunch Program. The National School Lunch and Breakfast programs provide meals at a free or reduced cost based upon United States Department of Agriculture (USDA) Income Eligibility Guidelines which are adjusted annually for inflation. Program eligibility factors of household income and size are in relation to federal poverty guidelines (Florida Department of Education, 2007c). All school sites receive a copy of the revised guidelines each year. Data representing minority enrollment were collected from each individual school's accountability reports. This information is updated yearly.

The selected District comprised a total of 61 schools. Of those schools, 22 were elementary schools (serving students in kindergarten through 5<sup>th</sup> grade); 7 were middle schools (serving students in 6<sup>th</sup> through 8<sup>th</sup> grade); 3 were multi-level (2 serving students in kindergarten through 8<sup>th</sup> grade and 1 serving grades 6 through 12) and 8 were high schools (serving students in 9<sup>th</sup> through 12<sup>th</sup> grades). In addition, the District included 2 facilities for adult education, 10 schools with alternative programs, 2 alternative schools and 7 charter schools; however, adult programs, alternative programs and schools, and

charter schools were not included in the study as they represent student attendance outside the requisite geographic zones and/or serve either an alternative student population or one that was determined by choice rather than geography. In the case of 2 alternative schools, enrollment was in conjunction with requirements set forth by the juvenile justice system. It was also necessary to eliminate schools that were newly opened for the 2007-2008 school year as demographic data were not compiled until after school year had begun and would not be considered information of record until the beginning of the subsequent school year (2008-2009). For the purpose of this study, the researcher focused only on those remaining District schools that served students from kindergarten through 12<sup>th</sup> grade and whose attendance was based on geographic zoning boundaries. Therefore, the study included data from a total of 34 schools: 19 elementary schools, 7 middle schools, 6 high schools and 2 multi-level schools.

#### Rationale for determining distribution

The researcher began with an exploration of the data regarding distribution of NBCTs across the schools in the District and their employment as instructors within the schools. The initial analysis examined the data in simple numeric fashion, determining the actual number of NBCTs per school site. The total number of NBCTs in the District was 92 and the District was comprised of 61 schools. It was expected, for an equitable distribution, that each school would have at least one NBCT on staff. This rationale extended to the 34 schools that were ultimately selected for the study.

The initial analysis led to the use of scatterplots, which provided an indication as to whether the distribution of NBCTs relative to the percentage of poor and minority students and the individual school's grade were related in either a linear or curvilinear

pattern. The scatterplots would also indicate the strength of the relationship between those variables, a weak relationship indicated by random dot placement, a strong relationship indicated by a tight clumping of dots along a best-fit line (Pallant, 2007).

Determination of normal distribution was also important in determining the correct statistic for overall analysis. Data that are not normally distributed exclude the possibility of regression analysis. Therefore, the researcher used a histogram to show distribution of the data (Pallant, 2007).

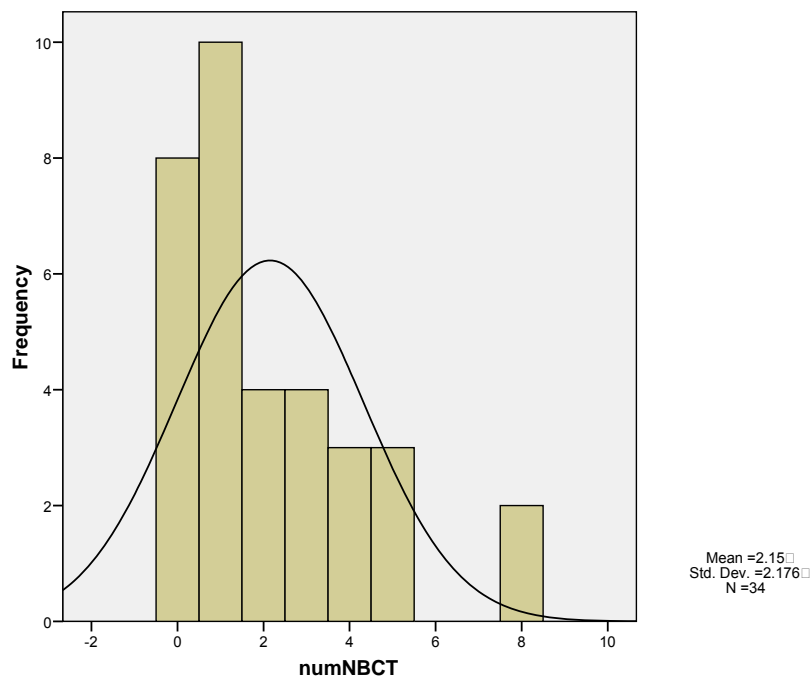


Figure 3-1: Histogram – NBCT distribution

Because the histogram revealed a shape that did not fit the normal pattern of the bell-curve, the Kolmogorov-Smirnov statistic was necessary to assess normality. The results are given on the table below.

Table 3-1: Kolmogorov-Smirnov test of normality of distribution

**Tests of Normality**

	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
numNBCT	.230	34	.000	.847	34	.000

a. Lilliefors Significance Correction

As indicated by the table is a significance of .000 which suggests the violation of the assumption of normality ( $p < .05$ ). Although significance with this statistic is more commonly found with larger samples, it is not uncommon in social science research to produce a significant result (Pallant, 2007). Since regression analysis could not be used, assessing the normality of the distribution of NBCTs was nevertheless required in order to determine whether correlation analysis would be parametric or non-parametric. Because the Sig. value was .000, well below the threshold of .05, and the assumption of normality was violated, calling for the use of the Spearman's Rank Order Correlation (rho) statistic, the non-parametric alternative to Pearson's Product-Moment Correlation Coefficient.

Rational for use of correlation analysis

Correlation analysis explains the strength and direction of a linear relationship between two variables (Pallant, 2007). Because the data representing the number of NBCTs were not normally distributed, the use of Spearman rho correlation was required (Cronk, 2002; Pallant, 2007). Spearman rho would allowed the researcher not only to determine whether a relationship existed between the variables, but also to determine both the strength and the direction of the relationship in a sample where the data were not normally distributed. The researcher used correlation testing to determine the strength of

the linear relationship between each of the following variables: the number of NBCTs at each school to the percentage of poor and minority students at each school. Also examined was the relationship between the number of NBCTs at each school and the school's grade based on Florida's A+ Program for accountability. Data representing the number of NBCTs, SES and the percentage of each school's minority population were gathered and entered into the Statistical Package for the Social Sciences (SPSS).

#### Problems acknowledged

The first concern was a matter of sample size. Although there were 120 reported NBCTs in this District, only 113 reported their status to the Office of Professional Development, the difference attributed to NBCTs employed as administrators. An additional 19 did not begin the 2007-2008 school year with National Certification reducing the sample size by 17%. Because the focus of the study concentrated on the number of NBCTs that were in the classroom with direct instructional contact with students, the sample was further reduced by the removal of an additional 32 NBCTs. Consequently, the actual sample size was 62, 48% less than originally anticipated.

A further concern was the number of schools included in the study. Although the District was comprised of 61 schools, that number included several schools for which enrollment was based on factors other than geographic zoning. These factors included everything from alternative schools and programs and charter schools to schools that were part of the juvenile justice system. It was necessary to remove those schools from the sample in order to obtain a truer examination of student populations. A total of 27 schools, or 44%, were removed, leaving 34 schools in the sample. The smaller sample sizes for the number of NBCTs and the number of schools limited the possibilities for

analysis. The use of multiple regression for this study would have allowed for all independent variables (the percentage of poor and minority students, and the schools' grades) to be analyzed simultaneously and evaluated as to their predictive power over other independent variables. Multiple regression also would have allowed the researcher to explain the amount of variance in the dependent variable that could be attributed to the set of independent variables. However, the issue of generalizability is of concern with small sample sizes in multiple regression analysis. As cited in Pallant, 2007,

Stevens (1996, p. 72) recommends that 'for social science research, about 15 subjects per predictor are needed for a reliable equation'. Tabachnick and Fidell (2007, p. 123) give a formula for calculating sample size requirements, taking into account the number of independent variables that you wish to use:  $N > 50 + 8m$  (where  $m$  = number of independent variables). (p. 148)

As a result of the reduction in the number of NBCTs and the number of schools used in the study, the equation revealed sample sizes (for NBCTs:  $59 < 50 + 8m$ ;  $59 < 84$  and for the number of schools:  $34 < 50 + 8m$ ;  $34 < 84$ ) that were too small for multiple regression, the original statistic selected by the researcher. Moreover, the data representing the number of NBCTs were not normally distributed and were skewed, further eliminating regression analysis. While the use of Spearman rho did not allow for an explanation of the unique variance ascribed to the independent variables, simple bivariate correlation determined whether a relationship existed and the strength and direction of the relationship between two variables.

Finally, tracking the NBCTs within the District proved to be difficult. While the District requires NBCTs to report to the Office for Professional Development, this process occurs in two stages, one at the initiation of the process in order to receive support from the Dale Hickam Act, and the other upon completion of the certification in

order to receive the salary increase awarded to NBCTs. This process has been problematic to say the least. After certification has been earned, some NBCTs may be employed as administrators, which would eliminate the salary increase. Changes in NBCTs' responsibilities after the start of the school year were a factor as well. Overall, there was no apparent tracking mechanism for either distribution or determination of responsibilities among NBCTs in the District resulting in minor discrepancies among the data.

## CHAPTER FOUR: RESULTS

The purpose of this study was to examine the distribution of NBCTs across a central Florida school District in order to determine whether schools with higher populations of poor, minority and academically low-performing students were just as likely to have access to an NBCT as students in those schools that are not represented by higher percentages of poor, minority and low-performing students. The study sample consisted of 34 elementary, middle, high and multilevel schools in a central Florida school district. The number of NBCTs used for this study was 94 representing the total number of NBCTs who began the 2007-2008 school year.

### Research question 1

To what extent is the distribution of NBCTs equitable across a specified central Florida school district?

### Results

Results obtained from the data indicated that the number of NBCTs in District schools ranged from eight NBCTs at two schools to no NBCTs at eight schools. Of the 34 schools included in the study, 22 (65%) had two or fewer NBCTs on staff. However, 16 NBCTs or 27% of the total number of NBCTs in the District could be found in two schools. A total of 43 NBCTs or 73% were found to be in 8 schools, or 23% of the total number of schools in the sample. It was clearly evident that the distribution of NBCTs across schools in this District was not equitable. The table below indicates the distribution of NBCTs among the sample schools.



Table 4-1: Distribution of NBCTs in the sample schools

School	#NBCTs
301	8
201	8
801	5
311	5
601	5
111	4
958	4
91	4
271	3
272	3
902	3
81	3
401	2
957	2
711	2
40	2
61	1
71	1
701	1
904	1
811	1
321	1
41	1
341	1
821	1
922	1
851	0
831	0
501	0
42	0
901	0
101	0
251	0
841	0

Table 4-2: NBCT Distribution extremes

Extreme Values			Case Number	Value
numNBCT	Highest	1	15	8
		2	32	8
		3	9	5
		4	24	5
		5	28	5
	Lowest	1	31	0
		2	23	0
		3	18	0
		4	14	0
		5	8	0 <sup>a</sup>

a. Only a partial list of cases with the value 0 are shown in the table of lower extremes.

Table 4-2 shows the top five schools with the largest number of NBCTs and the lowest five schools with the fewest number of NBCTs. It is important to note that the bottom five cases in this table is only a partial list of the schools with zero NBCTs on staff.

### Research question 2

To what extent are NBCTs employed in classroom instructional positions in a central Florida school district?

### Results

Following an examination of the simple distribution of NBCTs across the District, the researcher then examined the percentage of NBCTs employed in full-time, classroom instructional roles. Table 4-3 below revealed that of the 94 NBCTs that were included in the study, 59 were employed in direct classroom instructional roles, representing 63% (.627) of the total. The remaining 37% (.373) of the NBCTs in the District were employed in positions that did not place them in direct instructional contact with students.

Table 4-3: Instructional NBCTs

School	#NBCTs	#NBCTs instructional
301	8	6
201	8	7
801	5	3
311	5	3
601	5	4
111	4	2
958	4	2
91	4	3
271	3	2
272	3	2
902	3	3
81	3	3
401	2	2
957	2	0
711	2	2
40	2	1
61	1	0
71	1	1
701	1	1
904	1	1
811	1	1
321	1	1
41	1	1
341	1	1
821	1	1
922	1	1
851	0	0
831	0	0
501	0	0
42	0	0
901	0	0
101	0	0
251	0	0
841	0	0

This examination was simple but coupled with the observations regarding the distribution it became apparent that while most of the NBCTs were instructional, certain schools, and therefore certain groups of students, did not have access to such teachers.

Thus, grounds for further analysis, in order to address this discrepancy, was indicated. In other words, had the majority of NBCTs not been instructional, the impetus to further examine variables with regard to their distribution would have been less imperative. However, because most were instructional, this data led to the examination of possible factors that could identify correlations between those factors and the numbers of NBCTs in the schools. It was evident that when schools employed NBCTs, those highly qualified teachers were more likely to be present in full-time classroom situations.

### Research question 3

To what extent are NBCTs employed in poor and minority schools in a central Florida school district?

### Results

The researcher selected three common variables in an effort to determine why certain schools in the District employed more NBCTs than other schools: poverty, minority and academic performance. The first two variables of poverty, based on the numbers of students eligible for the free or reduced lunch program, and minority, based on the percentage of minority students enrolled at each school, were addressed in question three. Table 4-4 below provides the breakdown of each District school in the sample along with the numbers of NBCTs at each school and the percentages of poor and minority students enrolled at each school.

Table 4-4: NBCT Distribution with poor and minority percentages

school	numNBCT	%minority	%lowSES
841	0	80	62
401	2	82	79
601	5	78	60
922	1	16	27
201	8	36	34
61	1	81	84
957	2	78	77
71	1	76	83
42	0	82	80
901	0	81	76
101	0	69	77
321	1	82	78
91	4	77	77
41	1	84	76
251	0	77	72
821	1	85	79
902	3	48	46
81	3	61	57
851	0	85	78
958	4	62	64
341	1	59	61
311	5	47	51
272	3	21	35
831	0	75	76
501	0	15	33
801	5	34	58
271	3	27	49
701	1	66	69
904	1	59	57
811	1	51	71
301	8	55	71
111	4	34	41
711	2	18	19
40	2	28	39

The researcher next used a scatterplot to reveal whether the relationship between the numbers of NBCTs and schools with high populations of poor students was linear. Only linear relationships are subject to correlation analysis.

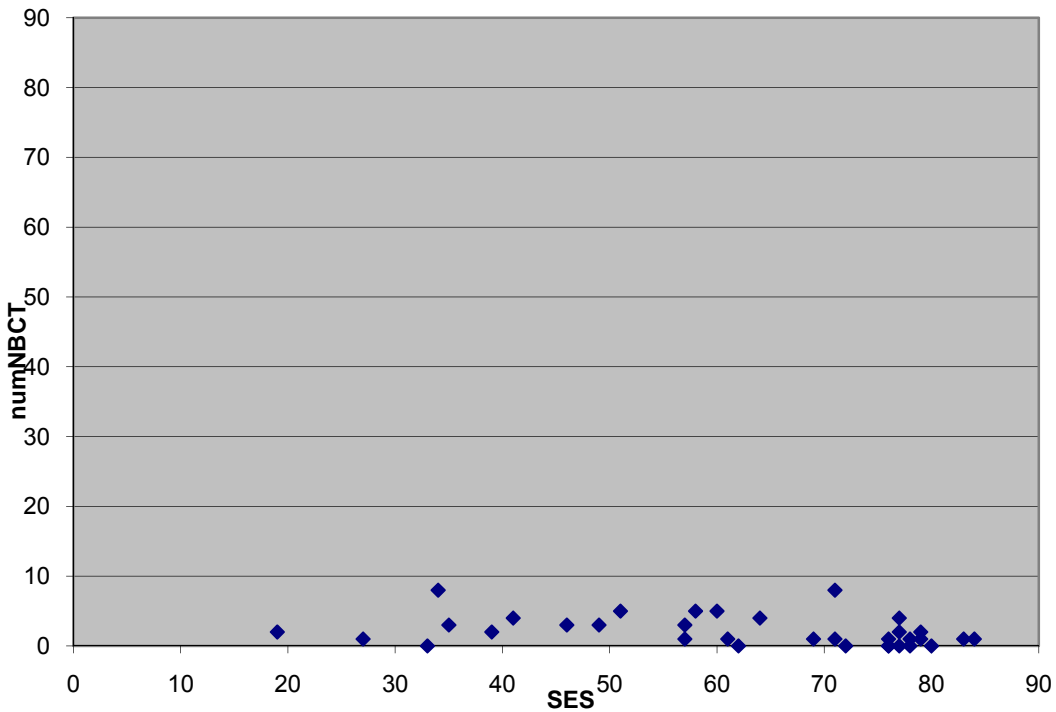


Figure 4-1: Scatterplot – Relationship between the numbers of NBCTs to the percentage of students eligible for free/reduced lunch

Figure 4-1 illustrates the relationship between the numbers of NBCTs and SES. Note the tight cluster of dots at the upper end of the SES axis which revealed that schools with a high percentage of students eligible for free/reduced lunch do employ NBCTs; however, those dots are close to the zero line along that axis which indicated low numbers of NBCTs. As revealed by the graphic, the relationship between the number of NBCTs and schools with a high percentage of low SES students was both linear and negative, indicating that as the percentage of poor students increases, the number of NBCTs at that school decreases. Similar results were revealed in the analysis of the relationship between the number of NBCTs and schools with a high percentage of minority students.

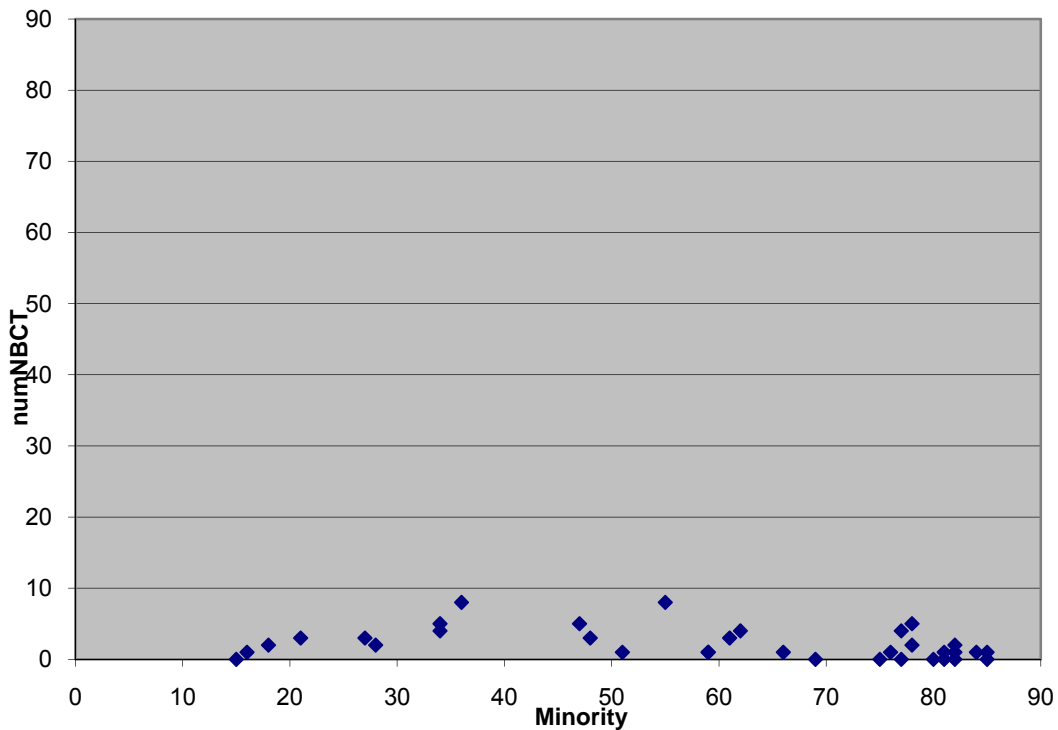


Figure 4-2: Scatterplot – Relationship between the numbers of NBCTs and the percentage of minority students

Figure 4-2 also revealed a relationship between the number of NBCTs and the percentage of the school’s minority students that was both linear and negative. As seen in the Figure 4-2 scatterplot, the dots are clustered along the upper end of the minority axis but close to the zero line, whereas the dots at the lower end on the minority axis are more spaced between the zero and ten. The data indicate that while there are NBCTs employed in schools with a higher percentage of minority students, there are fewer of them at those schools. Again, as the percentage of minority students rose, the number of NBCTs declined.

#### Research question 4

To what extent are NBCTs employed in academically low-performing schools in a central Florida school district as defined by the A+ Accountability Plans for Florida schools?

#### Results

The third variable, academic performance based on the individual school's grade, was addressed in question four. Initial analysis examined the distribution of grades at the sample schools. For this study, the values assigned to school grades were as follows; A=4, B=3, C=2, D=1, and F=0. Table 4-5 revealed the frequency of grade distribution for the individual school grades based on Florida's A+ Accountability Program.



Table 4-5: School grade distribution table

school	grade
401	1
61	2
957	2
851	3
831	4
501	4
71	2
42	2
801	4
271	4
701	4
904	4
811	4
901	2
301	4
111	4
958	3
101	2
321	2
91	2
41	2
341	3
251	2
311	3
821	2
272	3
902	2
601	1
922	1
81	2
841	0
201	1
711	4
40	4

Table 4-6: School grade frequency table

**schoolgrd**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	1	2.9	2.9	2.9
	1	4	11.8	11.8	14.7
	2	13	38.2	38.2	52.9
	3	5	14.7	14.7	67.6
	4	11	32.4	32.4	100.0
	Total	34	100.0	100.0	

Table 4-6 describes the frequency of the distribution of school grades in the study sample. Of the 34 schools, one school received a grade of “F,” which accounted for nearly three percent (2.9%) of the total sample. Four of the schools received “D” grades representing nearly 12 % (11.8%) of the total, and 13 schools (38.2%) were graded as “C” schools. Cumulatively, approximately 53% (52.9%) of the schools in this District are graded “C” or lower indicating average or less-than-average student performance. Although 5 schools, or 14.7% were given a “B” grade, and 11 schools (32.4%) were “A” schools, cumulatively, this represents only 41.1% of the schools that were considered performing above the level of average.

When examining the relationship between the numbers of NBCTs and academic performance based on the individual school’s grade, a third scatterplot, Figure 4-3 revealed another linear relationship. As previously indicated, the values assigned to school grades were as follows; A=4, B=3, C=2, D=1, and F=0. Table 4-5 revealed the frequency of grade distribution for the individual school grades based on Florida’s A+ Accountability Program.

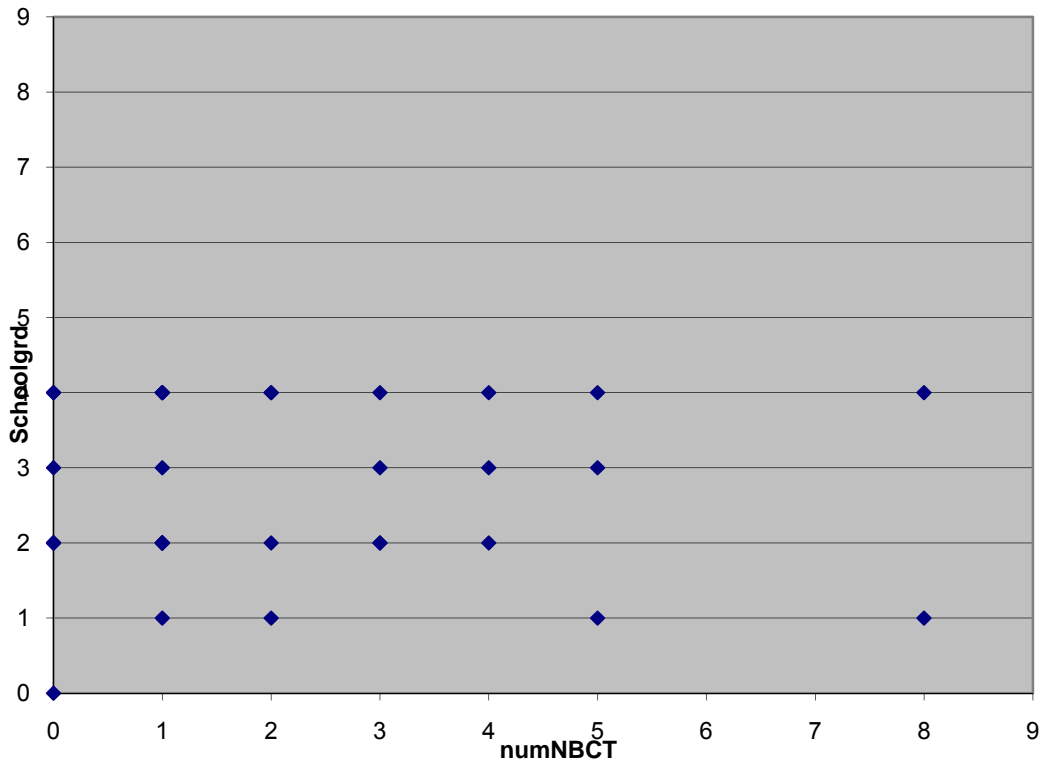


Figure 4-3: Scatterplot – Relationship of NBCT to school grade

Figure 4-3 revealed a horizontal dispersion, indicating that no relationship existed. In other words, as one increases, the other is about as likely to increase as it is to decrease. This is clearly seen in the more random dispersion of dots along several axes.

The initial scatterplot analysis led to the determination that relationship between the numbers of NBCTs and the individual variables of poverty, minority and academic performance were all linear. Correlation analysis explains the strength and direction of a linear relationship between two variables (Pallant, 2007). Because the data representing the number of NBCTs were not normally distributed, the use of Spearman rho correlation was required (Cronk, 2002; Pallant, 2007).

In an examination of all of the variables of poverty, minority and academic performance, Table 4-7 below reveals the combined data gathered by the researcher.

Table 4-7: NBCT Distribution

School	Grade	#NBCT	%Minority	%SES
401	1	2	82	79
61	2	1	81	84
957	2	2	78	77
851	3	0	85	78
831	4	0	75	76
501	4	0	15	33
71	2	1	76	83
42	2	0	82	80
801	4	5	34	58
271	4	3	27	49
701	4	1	66	69
904	4	1	59	57
811	4	1	51	71
901	2	0	81	76
301	4	8	55	71
111	4	4	34	41
958	3	4	62	64
101	2	0	69	77
321	2	1	82	78
91	2	4	77	77
41	2	1	84	76
341	3	1	59	61
251	2	0	77	72
311	3	5	47	51
821	2	1	85	79
272	3	3	21	35
902	2	3	48	46
601	1	5	78	60
922	1	1	16	27
81	2	3	61	57
841	0	0	80	62
201	1	8	36	34
711	4	2	18	19
40	4	2	28	39

There were eleven “A” rated schools in the District: 831, 501, 801, 271, 701, 904, 811, 301, 111, 711 and 40. The total number of NBCTs employed in these schools was 27, an average of 2.45 NBCTs per schools. The eleven “A” schools had an average

student population that was 42% minority with an average of 53% of the students eligible for the free/reduced lunch program. The average minority population among the “A” schools was significantly below the District’s average of nearly 68% (67.6); however, the average population of students eligible for free/reduced lunch among “A” schools was only slightly less than the District’s average of 54.6%. Among the District’s five “B” rated schools, 851, 958, 341, 311, and 272, there were a total of 12 NBCTs, or 2.4 per school. The average minority population among the “B” schools was 54.8%, as compared to the District’s average of 67.6%, while the percentage of students eligible for free/reduced lunch was 57.8%, slightly higher than the District’s overall average of 54.6%. There were 13 “C” schools in the District: 61, 957, 71, 42, 901, 101, 321, 91, 41, 251, 821, 902 and 81. There was a considerable decrease in the number of NBCTs at the “C” schools. Among the 13, there were only 17 NBCTs for an average of 1.3 per school. However, there was a noticeable increase in the average percentage of minority students at these schools, 75.46% as compared to the District average of 67.6%. There was also an increase in the average percentage of students eligible for free/reduced lunch; the “C” schools posted an average of 74% compared to the District overall average of 54.6%. The District’s four “D” Schools revealed something completely different. Among the “D” schools; 401, 601, 922 and 201; there were 16 NBCTs with an average of four per school. This was appreciably higher than the District’s “A” schools; yet, the average percentage of minority students among these schools was 53%, considerably lower than the District average (67.6%). The “D” schools also presented a lower percentage of students eligible for free/reduced lunch, an average of 49.75% as compared to 54.6% for the District

overall. The District's only "F" school, 841, had no NBCT on staff, but had a student population that was 80% minority with 62% eligible for the free/reduced lunch program.

Spearman rho analysis for the relationship between variables

The final step in the analysis of the relationship between the numbers of NBCTs and the variables of poverty, minority and academic performance was the use of correlation analysis. The Spearman rho statistic was used to calculate a simple bivariate correlation between the following variables:

- (the number of) NBCTs and poverty (SES - percentage of students eligible for free or reduced lunch),
- NBCTs and minority (percentage of minority students), and
- NBCTs and academic performance (based on school grade).

The results of the Spearman rho analysis follows.

Table 4-8: Correlation of NBCT, SES, minority & school grade

			numNBCT	minority	SES	schoolgrd
Spearman's rho numNBCT	Correlation Coefficient		1.000	-.408*	-.399*	.092
	Sig. (2-tailed)		.	.017	.019	.603
	N		34	34	34	34
minority	Correlation Coefficient		-.408*	1.000	.868**	-.506**
	Sig. (2-tailed)		.017	.	.000	.002
	N		34	34	34	34
SES	Correlation Coefficient		-.399*	.868**	1.000	-.315
	Sig. (2-tailed)		.019	.000	.	.070
	N		34	34	34	34
schoolgrd	Correlation Coefficient		.092	-.506**	-.315	1.000
	Sig. (2-tailed)		.603	.002	.070	.
	N		34	34	34	34

\*. Correlation is significant at the 0.05 level (2-tailed).

\*\*. Correlation is significant at the 0.01 level (2-tailed).

Analysis regarding the relationship between the number of NBCTs and poverty (SES as measured by the percentage of students on the free and reduced lunch program) at specified District schools, indicated a medium strength negative relationship,  $\rho = -.399$ ,  $n = 34$ ,  $p < .05$ , with higher percentages of students on the free and reduced lunch program associated with lower numbers of NBCTs. The coefficient of determination between the number of NBCTs and SES was computed,  $-.399 \times -.399 = .159$ , indicating 16% shared variance. The percentage of students of the free and reduced lunch program explained 16% of the variance in the number of NBCTs.

There was also a medium strength negative correlation between the variables of number of NBCTs and minority,  $\rho = -.408$ ,  $n = 34$ ,  $p < .05$ , with higher percentages of minority students associated with lower numbers of NBCTs. When calculating the coefficient of determination in order to explain the amount of variance shared by the two variables, the rho value is squared. Between the aforementioned variables,  $-.408 \times -.408 = .166$ , indicating 17% shared variance. The percentage of minority students explained 17% of the variance in the number of NBCTs.

The final analysis between the two variables of number of NBCTs and the school grade (based on the Florida A+ accountability program) revealed no relationship,  $\rho = .092$ ,  $n = 34$ , with insignificant correlation.

### Summary

The first research question examined the numerical distribution of NBCTs in the District. Results obtained from the data indicated that the distribution of NBCTs was not equitable. Some schools had several NBCTs on staff while others had few and several had none at all. The second research question focused on responsibilities of the NBCTs

employed in the District. The results of the data analysis regarding the responsibilities of NBCTs within the District revealed that 63%, 59 of the 94 were employed in instructional roles. The remaining 35 NBCTs were employed in support roles such as instructional coaches, mentors, and curriculum resource teachers. Given that results of the first research question indicated that NBCTs were not equitably distributed, the researcher then sought to determine whether the NBCTs were employed in instructional roles in District schools. The inequity of the distribution of NBCTs across the District's schools may be further exacerbated by the fact that even if a particular school employs an NBCT, that individual may or may not be in an instructional role where he or she would have the greatest impact on student performance. The presumption was that NBCTs employed in direct instructional roles would have greater impact on student achievement given their status as "highly qualified" (CNA, 2004). Because the inequitably distributed NBCTs were largely employed in instructional roles, then certain schools, and therefore certain groups of students, did not have access to such teachers. Thus, the unequal distribution of "highly qualified" teachers became more profound.

The third question presented the possibility of variables that could be correlated with the numbers of NBCTs in the sample schools. The research revealed that two of the three variables established by the researcher could be correlated with the number of NBCTs at a District school, the variables of poverty and minority. Simply, at the District's school, the more students that were eligible for free or reduced lunch, or were of an ethnic minority, the less likely that school was to employ a National Board Certified, "highly qualified" teacher.



The final research question addressed the number of NBCTS in schools that were academically low performing. Although previous research supported the assumption that academically low performing schools were also schools with high poor and minority populations. This was not the case in the selected District. Evident in both the preliminary scatterplot analysis and in the Spearman rho statistic, there was no relationship between the number of NBCTS and whether a school was academically low performing, findings that were inconsistent with the relationships of poverty and minority to the number of NBCTS.

### Theoretical framework

Through critical examination of the distribution of highly qualified teachers, NBCTS, in one central Florida school district, the question of the existence of social oppression within the poor and minority populations served was raised and addressed. The NBPTS has articulated a clearly defined goal of providing all students with access to NBCTS (National Board for Professional Teaching Standards, 2004), a goal in concert with federal legislation (*No Child Left Behind, 2001c*). Thus, are the goals of NBPTS and NCLB a reality within a central Florida district? The answer to this question was clearly no. Could the existence of social oppression be therefore contextualized? The researcher believed it could.

Michael Apple contended that the bureaucracy of school – the institution of education itself – is reflective of a [consumerist and] hierarchal ideology of society. He stated, “In effect, for this more critical tradition, schools latently recreate cultural and economic disparities, though this is certainly not what most school people intend at all” (Apple, 2004, p. 32). School is expected to be a neutral institution for learning, but itself

is a victim of the power characteristic of the dominant culture reflected in the very organization of that system. The fundamental danger in this dynamic is the lack of acknowledgment that the victimization has occurred. While shrouded in the rhetoric of the language of equity and the goal of closing the achievement gap, this District has, albeit inadvertently, made it possible for educational disparity to exist. Not all students in this District have equal access to an NBCT, and appear to be denied such, in part, based on their socio-economic status and/or their race. Yet, because teachers choose where they wish to work, the inequity of the distribution would seem beyond the control of the school system. Thus, as Apple continued, "...schools also play a rather large part in distributing the kinds of normative and dispositional elements required to make [this] inequality seem natural" (p. 41).

Critical social theory (CST) is a multidisciplinary knowledge base with the implicit goal of advancing the emancipatory function of knowledge. Critical social theory has been used to critique many aspects of the educational system and its processes (Leonardo, 2004). It "encourages the production and application of theory as part of the overall search for transformative knowledge" (p.11) and approaches this goal by promoting the role of criticism in the search for quality education. The use of CST as the lens through which the researcher viewed the outcomes of this research exposed uncomfortable truths. The NBCTs employed in this District have apparently chosen to be employed in schools where they are less likely to teach poor and/or minority students. By identifying and acknowledging these truths, however, the researcher sought to contribute to a process that may result in a positive transformation. In this District, where the overall grade is a "C," and there are no high schools above a "D," it is possible for this District to

initiate transformation through the consideration of how its most highly qualified teachers are utilized.

## CHAPTER FIVE: CONCLUSIONS, DISCUSSION AND RECOMMENDATIONS

### Conclusion

The purpose of this study was to examine the distribution of NBCTs across a central Florida school District in order to determine whether schools with higher populations of poor, minority and academically low-performing students were just as likely to have access to an NBCT as students in those schools that are not represented by higher percentages of poor, minority and low-performing students. At the time of this study, there were over 63,800 NBCTs (Viadero & Hanowar, 2008) in the United States; this number has consistently grown yearly over the last ten years. Nearly 11,000 (10,875) NBCTs were located in the state of Florida, representing 7% of that state's total number of teachers, ranking that has placed Florida second nationally to North Carolina. Through the *Dale Hickam Excellent Teaching Program Act*, the state of Florida has offered substantial bonus pay for teachers who receive National Board Certification thus providing monetary reward for the accomplished designation. The proposed budget for 2007-2008 for the aforementioned program is approximately \$88,000,000 reflecting the state's commitment to the efficacy of the NBPTS. In addition, the NBPTS has indicated its commitment to both encouraging minority participation in the certification process as well as ensuring that minority and poor children have equal access to NBCTs.

### Research question 1

To what extent is the distribution of NBCTs equitable across a specified central Florida school district?

The NBPTS has articulated a clearly defined goal of providing all students with access to NBCTs (National Board for Professional Teaching Standards, 2004), a goal in

concert with federal legislation (*No Child Left Behind, 2001c*). Is the achievement of these goals a reality within this central Florida district? The answer to this question was clearly no. According to the data, it was clearly evident that, in this particular District, the distribution of NBCTs is not equitable. Many schools have no NBCTs on staff while others have several. While some students have possible access to one of several NBCTs employed at their zoned school, other students have no possibility of such access.

### Research question 2

To what extent are NBCTs employed in classroom instructional positions in a central Florida school district?

Over 63% of the total number of 94 NBCTs (.627) is employed in direct instructional roles within the District. The remaining 37% (.373) of the NBCTs were employed in positions that did not place them in direct instructional contact with students. Because NBCTs were more likely than not to be in classrooms with direct instructional contact with students, it can be concluded that the more NBCTs at a school, the greater number of students have possible access to them. Were they not largely instructional, this becomes a moot point, and implies a different study altogether.

### Research question 3

To what extent are NBCTs employed in poor and minority schools in a central Florida school district?

The correlation between the numbers of NBCTs and the percentages of poor and minority students was significant. Students attending schools with high poor and minority populations are less likely to have the opportunity to be in classrooms taught by an

NBCT than are those students attending schools with lower populations of poor and minority students.

#### Research question 4

To what extent are NBCTs employed in academically low-performing schools in a central Florida school district as defined by the A+ Accountability Plans for Florida schools?

Academic low performance was not a factor in relating the number of NBCTs to a particular school. In this District, academic performance of a school had no bearing on the number of NBCTs employed at that school.

Although these findings are not surprising based on the review of the literature, their importance was rooted in the District's unique demographics.

- 26% of the District's students were limited-English proficient, as compared to 12% at the state level, with 91 different languages spoken by students in the District representing 116 different countries of origin (Osceola District Schools, 2007),
- 53% of the District's students received the Free and Reduced Lunch Program benefits, as compared to 46% at the state level, and
- 60% of the District's students were black or Hispanic, as compared to 54% at the state level (Florida Department of Education, 2008b).

In other words, schools that were not poor or minority were not the norm within this District, a fact that makes the findings presented here even more profound.

Of the 34 schools selected for the study sample, over half had minority populations over the District's average of 60%. Eight of those schools (23%) employed 43 (73%) of the total number of NBCTs. Interestingly, of the eight schools, five reported minority populations less than District's average, but only three of the eight reported percentages less than the District average with regards to the percentage of students receiving the free

and reduced lunch program. From this, it could be gleaned that poverty matters less than race with regard to the number of NBCTs in a school. Academic performance, at least in this particular district, doesn't appear to matter at all.

It merits noting that earlier studies, including those conducted in Florida, have examined the impact of NBCTs on student performance. Several have concluded that there were no significant differences in the performance of students taught by a NBCT versus those taught by a non-NBCT (Center for Analysis of Longitudinal Data in Education Research, 2007; National Board for Professional Teaching Standards, 2006; Vitale, 2008). The notable exception to these findings has been among poor, minority and low performing students (American Teacher, 2004; CNA, 2004; Center for Analysis of Longitudinal Data in Education Research, 2007). Within those demographic sub-groups, whether a student is taught by a NBCT does make a difference in student achievement. The question, perhaps one of deep moral and ethical consequence, is why are the students in these subgroups less likely to be taught by the teachers who will help them achieve the greatest academic gains?

### Discussion

Critical Social Theory (CST) provided the theoretical foundation for this study and established the lens through which the data were examined and interpreted. The function of CST is to understand the very nature of social oppression, recognizing, through critical examination, that the oppression is both existent and powerful. It does not substantiate that oppression exists; rather, describes the form it assumes (Leonardo, 2004). In this study, the assumed form was the inequitable distribution of "highly qualified" teachers wherein the existence of social oppression could be contextualized.

The concept of hegemony within education was previously defined as a means of perpetuating a caste structure that keeps the dominant social structure intact. In *Ideology and Curriculum* (2004), Michael Apple detailed the various actions through which schools both advertently or inadvertently serve to propagate social stratification and labeled these actions as part of a “hidden curriculum.” Included in that hidden curriculum is the nature by which instructional resources, including teachers, are distributed to all (Kozol, 2005). Hence, the inequitable distribution of “highly qualified” teachers has provided the opportunity to identify such as part of that “hidden curriculum.” Within the rhetoric of national standards and accountability, for the purpose of leaving no children behind in terms of educational opportunity, does the inequitable distribution of “highly qualified” teachers reveal hegemony inherent in the system? It is the belief of the researcher that it most certainly does.

CST is known for the use of criticism and “its ability to advance research on the nature of oppression and emancipation” (Leonardo, p.11), and the results presented here clearly are causes for criticism with regard to the manner by which “highly qualified” teachers, in this case, NBCTs, are utilized within a district. While previous studies indicate findings that are consistent with those presented, this study sought to bring the analysis to the District level, where site-based management and decisions regarding teacher utilization and placement are localized.

Both NCLB and the NBPTS cite goals that point to closing the achievement gap that exists among poor and minority students. Issues of equity are consistent in the language of the federal legislation and in the mission of the NBPTS, with especial regard to the opportunity for every child to be taught by a highly qualified teacher. On the state



level, Florida supports the emphasis on excellence in the teaching profession by offering monetary compensation for the achievement of the NBPTS certification. Yet, between Federal legislative intentions, the goals of a nationally recognized organization supporting teacher quality, and the localized decision-making in a school district, there exists a framework, a hidden curriculum, that allows for the unequal distribution of highly qualified teachers. The existence of such a framework calls for a number of uncomfortable questions:

- Why are there so many NBCTs, recognized by the state as “highly qualified,” not in this District’s classrooms where they could have the greatest impact on student achievement?
- In this District, with its high concentration of poor and minority students and an average overall academic performance, why are the most qualified teachers not more equitably distributed?
- Given that NBCTs appear to produce greater gains in student achievement among poor and minority students, why are the District’s NBCTs concentrated in schools with lower populations of such students?

The answers to these questions may be uncomfortably found in the inherent nature of the system to maintain the existing social order. Michael Apple, cited earlier, detailed the unintentional “cultural and economic disparities” that serve to propagate social stratification (Apple, 2004, p. 32). Evident within this District, although unintentional, there can no longer be a lack of recognition that such disparities exist with regard to the “highly qualified” teachers as both a cultural and economic resource. Apple further cited Italian Marxist Antonio Gramsci who purported that dominant groups maintained control over subordinate groups through the structure of established and accepted social institutions. Gramsci contended that:

...thinking of schools as mechanisms of cultural distribution is important since... the critical element in enhancing the ideological dominance of certain classes is

the control of the knowledge preserving and producing institutions of a particular society. (p.25)

By preserving a system of decision-making that allows for such obvious inequity, one could contend that therein lies the system's ultimate, but hidden, purpose. Within this District, NBCTs may choose their place of employment. While the researcher does not question the value of such personal freedom, nor seek to change it, there is clearly no structure in place that would encourage NBCTs to seek out schools where they will perhaps be of most benefit. The function of critical examination of such frameworks and decision-making on a localized level, however uncomfortable that examination may be, is to seek positive transformation, rather than blame, among social structures, including the structure and system of education.

The hypothesis of the researcher was that NBCTs would be equitably distributed across the District in schools where the populations were predominantly poor, minority and academically low-performing. However, the researcher also hypothesized that NBCTs would be more likely to be employed in positions that do not have direct instructional contact with students. This hypothesis was simply based upon the means by which NBCTs receive bonus compensation. The evidence reported here supported the opposite circumstance. In this District, 65% of the District's NBCTs are in classrooms with direct instructional contact with students, but these teachers are not equitably distributed.

### Recommendations

As reported by Humphrey, Koppich and Hough (2005), California was the exception to the consistent pattern of inequitable distribution of highly qualified teacher, specifically NBCTs. When faced with its own serious budget constraints, California prioritized expenditures making the decision to cease the practice of awarding all of its NBCTs the \$10,000 bonus for having earned the certification. According to the study, bonus compensation would only be awarded to teachers who chose to work with the neediest students in the neediest schools, rather than the general compensation for all NBCTs, as is the practice in Florida. Evaluation of a similar practice is recommended for this District, especially in light of cuts already made which impact the neediest students.

Another consideration is to pay the bonus compensation only to those teachers who maintain full-time classroom instructional with students. This would exclude reading and math coaches, curriculum resource teachers and those employed in special programs outside the realm of daily classroom instruction. Given the impact of high stakes accountability and the research that has reported that poor, minority and academically low-performing students tend to see greater gains in classrooms of NBCTs, it would seem prudent to encourage their placement in classrooms where they are needed the most.

### Implications for further study

Perhaps the most disconcerting aspect of the findings presented here was that it is an apparent reflection of the mechanism for teacher placement. It is the direct result of individual teacher choice that these disparities reported here exist. Obviously, in any employment scenario, a worker retains the right to choose whether he or she will assume

the responsibilities of a particular position offered. Such is the case in this District. The District's employment process allows candidates to apply via general application and/or seek contact with a particular school based on that site's individual openings. Such a process, while democratic, leaves open for question why a teacher would select one particular position, group of students, or school over another. Therefore, intrinsic to the findings presented here is the question of why NBCTs in this District seem to favor schools where the student populations are well below the average with regard to race and poverty. Such favor invites the very type of social critique implied by CST. Another consideration for additional study would be the aspects of schools, outside of the context of student demographics that may or may not be more appealing. What are these school aspects? And further, why do NBCTs in this District choose the schools they choose? Perhaps even more disturbing is the evidence that school grade, as a reflection of student academic performance, does not matter in teacher placement decisions. Does a student's academic performance matter less to a teacher than his or her race or social status? Moreover, would changes in compensation impact those decisions? These questions present opportunities to further explore why "highly qualified" teachers, such as those certified by the National Board for Professional Teaching Standards, are less likely to be found in schools and classrooms where the students are poor, minority or academically low-performing – the students who need them the most.

Using the same theoretical lens, additional examination could be made following recent Florida state budget constraints. For the 2008-2009 school year, Florida faced a serious budget shortfall exceeding \$2 billion. The District represented in this study faced \$11 million in funding cuts that came on the heels of \$21 million in cuts implemented

during the 2007-2008 school year (Osceola District Schools, 2008). Included in the District's budget restructuring were cuts in remedial programs, programs for at-risk students including drop-out prevention programs, and a reduction in summer school offerings. These programs typically serve disadvantaged students, including those that are poor and minority (National Center for Education Statistics, 2002). The impact on school operations, including staffing, has been considered "significant" (Osceola District Schools, 2008, ¶3). Again, such cuts may be reflective of the inherent nature of hegemony within the system of education and within this District. Although these cuts would be considered "across the board" and will have "significant" impact on all the District's schools and its students, it will be those disadvantaged – the poor, minority and academically at-risk students – who will suffer the greatest impact. Critical examination of why these particular cuts were deemed more pertinent than others is necessary.

APPENDIX: IRB APPROVAL LETTER



University of Central Florida Institutional Review Board  
Office of Research & Commercialization  
12201 Research Parkway, Suite 501  
Orlando, Florida 32826-3246  
Telephone: 407-823-2901, 407-882-2901 or 407-882-2276  
[www.research.ucf.edu/compliance/irb.html](http://www.research.ucf.edu/compliance/irb.html)

### Not Human Subjects Research

From : **UCF Institutional Review Board**  
**FWA00000351, Exp. 5/07/10, IRB00001138**

To : **Jacquelyn Flanigan**

Date : **March 27, 2008**

IRB Number: **SBE-08-05528**

Study Title: **In the critical tradition: An examination of National Board Certified teachers in a central Florida school district**

Dear Researcher:

After reviewing the materials that you have submitted, the UCF Institutional Review Board has determined that your project, "In the critical tradition: An examination of National Board Certified teachers in a central Florida school district," does not fit the definition of human subjects research because the research is using aggregate level school district data, not individual level data.

Therefore, IRB review is not needed.

Thank you for your time in resolving this issue. Please continue to submit applications that involve human subject activities that could potentially involve human subjects as research participants.

On behalf of Tracy Dietz, Ph.D., UCF IRB Chair, this letter is signed by:

Signature applied by Joanne Muratori on 03/27/2008 02:12:47 PM EST

A handwritten signature in cursive script that reads "Joanne Muratori".

IRB Coordinator

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