DEFICIT THINKING AND HISPANIC STUDENT ACHIEVEMENT: SCIENTIFIC INFORMATION RESOURCES

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Abstract
The purpose of this study was to examine the literature that suggests that the academic gap between Hispanic and White students may be due to cultural deficit thinking. The methodology used for conducting this research was to search through databases using the following key words: deficit thinking, cultural deficit, teacher effectiveness, racism in education, student stereotyping, teacher rating of Hispanic students, and achievement gap. Examination of the theory of cultural deficit thinking was applied to the literature and thus non-significant results were obtained. Practical solutions include changing teacher dispositions through self-reflection and education, recognition of deficit thinking and its effect, communicating high academic expectations to Hispanic students, and the implementation of curriculum that demands egalitarian instruction for all students.

Key words: cultural deficit thinking, Hispanic students, achievement gap.

Introduction
Student academic achievement has become a national priority. Historically, there has been an achievement gap between White and minority students. As more and more Hispanic students fall behind their White peers, it would appear that schools are not closing the achievement gap. The achievement gap is a major concern for educators, parents and society because many minority students including Hispanics often dropout of school unable to read or do basic math (Berlak, 2001).

The concern over the increasingly poor achievement of Hispanic students is due to several reasons. The Hispanic population is the fastest growing minority in the United States. By the year 2010, Hispanics will account for 15.5% of the total population of the United States (U.S. Census, 2004). Currently 69.8% of Hispanic students in grades K – 12 speak a language other than English and 19% of these students speak English with difficulty (U.S. Department of Commerce, 2005). Conversely, while the Hispanic student population is growing, 83% of elementary school and 85% of secondary school teachers are White (Marx, 2004).

Hispanic students account for the largest percentage of high school dropouts. In 2005, the high school graduation rates for Hispanic students were 59.5%, 60%, 57.3% in California, Florida and Texas respectively, much lower than graduation rates for White students (Education Counts Research Center, 2005). In Texas alone, 84, 566 Hispanics students dropped out of school in 2004 - 2005 (U.S. Department of Education, 2007). Nationally, about 30% of Hispanic students leave high school without
receiving high school diplomacy or a GED (Lockwood & Secada, 1999). Moreover, when Hispanic students do graduate from high school they are reading and performing math skills at an 8th grade level (The Academic Achievement Gap, 2005).

Hispanic students do not fare well when considering achievement on standardized tests and participation in gifted and talented programs. For example, nationally, 60% of Hispanic students scored below basic in math skills and 40% scored below basic in reading skills in 2005 (U.S. Department of Education, National Center for Education Statistics [NCES], 2005). Regarding participation in gifted and talented programs, only 47% of Hispanic students are identified as gifted (Ford, 2003). What are the reasons for this gap in achievement?

A myriad of reasons have been proposed as the possible causes for student underachievement; ineffective teachers, ineffective curriculum, lack of parental support, lack of student motivation, poor attendance, lack of academic resources and ineffective schools (Ford & Thomas, 1997). A theoretical perspective that has been widely accepted by educators as the root cause for this achievement gap is the theory of cultural deficit or cultural deficit thinking. Cultural deficit theory blames the child’s social, cultural, or economic environment as the root cause for the child’s failure to achieve in school (Solorzano, 2001). Deficit thinking allows teachers to blame the students and their parents for their failures and lessens the teachers’ and the schools’ accountability for these students (Berlack, 2001; Cooper 2006; Ford, 2003; Gorski, 2006; Valencia, 1997).

Cultural deficit theory “claims that persistent poverty creates cognitive deprivation, ignorance, and low aspirations” (Riojas-Cortez, 2000, p.225). In other words cultural deficit thinking places responsibility on the students and their environment for lack of achievement. Some contradictory research would suggest that teacher factors are also responsible for the achievement gap. For example, Ford found that teachers tend to set lower expectations for minority students (Ford). Additionally, teachers, who set low expectations for their students or are unaware of their beliefs about their students, can contribute to the gap in student achievement (Marx, 2004; Riojas-Cortez).

The theory of cultural deficit is defined as the accepted belief that a student’s and the student’s family social, cultural and economic environment is lacking or is deprived, and this leads to poor academic achievement (Cooper, 2006; Solorzano, 2001; Valencia, 1997). The purpose of this literature review is to examine current research on how deficit-thinking practices are damaging to Hispanic students by limiting their academic achievement and perpetuating the stereotypes about these students. The purpose of this study was to explore how cultural deficit thinking has impacted the Hispanic achievement gap. The following framework will be used to achieve this: (a) historical roots of deficit thinking, (b) deficit thinking in recent years, (c) studies in achievement gap among Hispanic students, (d) deficit thinking in the classroom, (e) deficit thinking in pre-service teachers, (f) deficit thinking in school district leaders, (g) intervention programs that challenge deficit thinking, and (h) recommendations for change.

Methodology of Research

The strategy that was used most often in searching for information on this topic was electronic search of databases for journals, books, magazine articles, dissertations, and research studies. Key terms that were used in finding searching for information were, deficit thinking, cultural deficit, teacher effectiveness, racism in education, student stereotyping, teacher rating of Hispanic students and achievement gap. This search provided historical references for the origin of cultural deficit thinking, its influence in public education and the current trends that are emerging that refute cultural deficit thinking. In addition, several studies, qualitative and quantitative, were identified that suggest a strong correlation exist between the level of academic achievement of minority students and teacher deficit thinking (Cooper, 2006; Solorzano, 2001; Valencia, 1997).

Historical Roots of Deficit Thinking

The development and acceptance of deficit thinking is deeply rooted in early racist theories and practices that were widely accepted in early America (Menchara, 1997). The scientific work of the 18th and 19th century supported the belief in the physical, mental, and cultural deficits of racial minorities. The development of Social Darwinism in the 1870’s and genetic science, lent scientific support to the
theory of racial deficits based on genetic evidence. According to Valencia, behavioral science offered
deficit theories as a way to “describe, explain, predict and prescribe”, (p.7) a scientific approach to
dealing with minorities. Additionally, the deficit theory was widely accepted until the 1970’s and 1980’s;
newer studies redefined culture and provided data that refuted deficit thinking. This newer way of thinking
was conducted by cultural anthropologists and sociologists who conducted a series of empirical
studies and these studies emphasized the value of cultural and ethnic differences.

However, cultural deficit thinking has not totally been eliminated; there is significant evidence
that it has experienced resurgence in popularity recently. This is evidenced by the publication of The
Bell Curve: Intelligence and Class Structure in American Life in 1994 (Hernstein & Murray). The
principal assumptions made by Bell Curve were: (a) there was scientific evidence that Whites were
genetically superior to people of color, specifically when IQ was measured, and (b) the level of IQ in
persons was unchangeable (Berlak, 2001; Matthews, 1998). The Bell Curve, was strongly criticized
by other scientists for failing to provide conclusive evidence to support their claims and making false
assumptions (Matthews). Conservatives, who supported the idea that heredity determines class and
IQ, nevertheless embraced Bell Curve as valid (Valencia, 1997).

Deficit Thinking in Recent Years

Today the deficit thinking paradigm is alive and well in education. The strongest evidence of this
is the widely accepted practice of labeling minority students as at-risk (Valencia, 1997). First used in
the 1980’s, students labeled at-risk share several characteristics; low academic achievement, perform
poorly on standardized tests, are disconnected to school, and have low socioeconomic status; and be-
cause of these factors are at-risk of dropping out of school (Donnelly, 1987; Ornstein & Levine, 2000).
Labeling students at-risk emphasizes a student’s deficiencies while ignoring the student’s strengths.
This is cultural deficit thinking in practice (Berlak, 2001; Valencia).

Schools have implemented policies and programs to solve the at-risk student problem. Compensa-
tory programs such as Head Start, Follow Through, bilingual education, dropout prevention programs,
and a variety of after school programs have been created to “compensate” for the deficiencies of at-
risk students (Ornstein & Levine, 2000). These programs have had some limited success (Donnelly,
1987).

More recently many schools and pre-service teacher programs have adopted Ruby Payne’s, A
Framework for Understanding Poverty (Payne, 1996), as an instructional model for working with
children living in poverty, i.e. minority students (Gorski, 2008). Payne’s framework is built on the
deficit-thinking premise that minority students live in a culture of poverty that does not prepare students
to survive in middle class society. Further, Payne’s deficit framework points out that students living
in poverty are lacking the necessary emotional, mental, financial, and spiritual resources to survive in
middle class. In order to help students achieve academically, it is the responsibility of educators, to
teach these students the values and culture of the middle class, while rejecting the values and culture
of poverty (Gorksi, 2006).

Studies in Achievement Gap Among Hispanic Students

Over the years, numerous studies have been conducted to try to understand the origins of the
achievement gap between White students and students of color (Berlak, 2001). What the majority of
these early studies indicate is that minority students are not lagging behind academically because of
deficits within students; instead, the studies indicate the deficits lie within the schools and the teachers.
Berlak also found that schools where minority students attended lacked academic resources and that
minority student enrollment was disproportionally high in low achieving schools. Moreover, Berlak
found that some studies indicated that while 23% of White students were enrolled in gifted and talented
programs, only 6.9% of students of color where enrolled in these programs.

A nation-wide response to attempt to decipher the causes of the Hispanic achievement gap was
initiated by Richard Riley, the Secretary of Education. In 1995, he appointed a panel of researchers, policy
analysts, and other experts to study the causes and suggest solutions to the Hispanic dropout
problem. The panel gathered qualitative data over a two-year period. They found a significant factor
contribute to the Hispanic dropout problem, the cultural bias and stereotypes that is prevalent amongst educators (Lockwood & Secada, 1999). They reported that many educators believe that Hispanic students do not care about school, do not come to school ready or wanting to learn, belong to gangs, do not want to learn English, and most significantly, do not deserve help. Further, the panel made several recommendations to be considered in order to begin to remedy the Hispanic dropout problem.

The most significant recommendation made by the panel, is that Hispanic students must be treated as students with abilities and talents that can and will contribute successfully to society (Lockwood & Secada, 1999). In addition, the panel made numerous other recommendations, among them: (a) Hispanic students should receive a high-quality education that is relevant and sets high expectations, (b) safe and healthy schools should be made available to Hispanic students, (c) schools that educate Hispanic students should have the necessary resources to provide a high-quality education, (d) teachers should teach content that challenges Hispanic students and should understand the roles of language, race, and culture, and (e) teachers should develop strategies to educate Hispanic students and receive the professional development necessary to acquire the necessary attitudes and skills.

A later study conducted to investigate how students of color respond to school, found that minority students’ academic achievement is a reflection of feelings of ambivalence about their academic success (Berlak, 2001). Qualitative data, gathered over a four-year period, indicated that this ambivalence is demonstrated in student’s response to school expectations; these students will either conform or avoid them. Furthermore, minority students feel intimidated by the knowledge that they are seen as students with limited ability, what researchers call stereotype vulnerability (Berlak). This intimidation seriously hinders academic achievement.

**Deficit Thinking in the Classroom**

Deficits in the early language of preschool Hispanic children have also been blamed as a cause for the achievement gap these children experience later in school (Riojas-Cortez, 2000). The language used during play by young Hispanic children has been described as simplistic, disconnected and lacking in imagination. Riojas-Cortez conducted an ethnographic study that disproves this deficit view. This study was conducted in one pre-kindergarten classroom in a small border school in Texas. The researcher collected qualitative data over a two-month period, in which the Hispanic children were observed in conversations during sociodramatic play. The researcher found that the children demonstrated the capacity to create elaborate stories, acquire information, make requests and give commands. Equally important, the children used their cultural knowledge and experience to direct the complexity of the make-belief situations they created. The findings refute the view that Hispanic children’s language skills are deficient. Critiques of this study have pointed out some limitations. A couple of the most important ones was the use of the Smilansky scale, developed for Israeli children, and therefore may not be as reliable when used with Hispanic children, and secondly, there was no control group.

Another study will be highlighted that refutes the deficit-thinking paradigm as the cause for Hispanic student’s academic underachievement and lack of participation in gifted and talented programs. The study was conducted to examine the effects of students’ level of acculturation on teachers’ attitudes towards Hispanic students (Masten, Plata, Wenglir & Thedford, 1999). Specifically, the quantitative study examined the differences in teacher rating of White and Hispanic students and the effect that the ethnic background and the level of acculturation of Hispanic students.

The study consisted of 150, fifth grade students, of which 63 were Hispanic. The teachers rated their students using the *Behavior Characteristics of Superior Students Assessment* (Masten et al., 1999). This assessment measures the presence of learning, motivation, creativity and leadership characteristics within students; it is commonly used to identify students for gifted and talented programs. This study found that teachers consistently rated Hispanic students lower than White students. Additionally, this study demonstrated that levels of acculturation of students, as perceived by the teacher, were a determining factor in how the teacher rated the student; the more acculturated the higher the rating given. Acculturation is defined as the ability to function in two cultures at the same time; acquiring traits of a new culture while preserving the characteristics of the predominant culture.
Deficit Thinking Among Pre-Service Teachers

Academic searches for studies on the effect of teacher deficit thinking upon student achievement revealed studies in teacher dispositions towards students and studies in teacher self-awareness of racist thinking. Research has shown that teacher dispositions towards minority students must be appropriate if they are to provide equitable education (Talbert-Johnson, 2006). Moreover, it is very important that teachers recognize deficit thinking within themselves if they are to be effective (Marx, 2004). Research has been challenging in this area because teachers, who are predominantly White, have a difficult time recognizing racist thinking or deficit thinking within themselves.

A qualitative study was conducted in 2004 of nine voluntary pre-service teachers (Marx, 2004). The researcher collected data in the form of observations of participants working with ELL (English Language Learners) students, in-depth interviews, journals, and field notes. The researcher’s definition of “whiteness” was adopted from the Critical Race Theory, which says that being White has inherent advantages considered to be the norm and that “Whiteness” (Marx, p. 2) is defined by situations, times, and relationships. The researcher discussed the difficulties in getting the participants to be honest about their feelings towards their Hispanic students and further, to recognize statements made by the participants as deficit or racist in nature. Participants commented frequently on deficiencies they saw in the children; they noted deficiencies in their student’s culture, language, intelligence, and families. While noticing differences, the participants did not see their comments as racist or as deficit in thinking. One of the participant’s comments on a child’s language skills, “…sometimes her grammar is real bad. She has the Mexican talk, kind of.” (Marx, p. 6) is an example of comments that were reported.

Furthermore, the researcher called this passive racism and notes that this passive racism has substantial effect upon teachers’ thinking. The researcher also discussed the limitations to this study; the small size of the group and the fact that the researcher was White.

Deficit Thinking in School District Leadership

There is substantial evidence that deficit thinking is deeply rooted not only in teacher and principal thinking but in district leaders’ thinking as well (Skrla & Scheurich, 2004). For a long time the perspective of many superintendents has been that minority students’ poor academic performance is inevitable and at worst, will remain unchanged.

Some would argue that high stakes testing, such as the Texas Assessment of Knowledge and Skills (TAKS), and the penalties that accompany these tests, (not graduating) are other examples of deficit thinking (Valencia, 1997.) Other researchers would argue the contrary, that high stakes testing along with accountability, have improved the academic performance of minority students (Skrla & Scheurich 2004).

The authors conducted a study of four Texas public school districts to test this hypothesis. The districts selected for this study, Aldine, Brazosport, San Benito and Wichita Falls, had to meet stringent criteria. These districts had to have at least two high schools that were rated either recognized or exemplary, a large percentage of minority or low-income students and other criteria that indicated improvement in student performance overall (Skrla & Scheurich, 2004). Collection of data over a six-month period for this qualitative study, included interviews with superintendents, school board members, central office personnel, principals, teachers, parents, other community members and classroom observations.

The results indicated that high stakes testing along with accountability does improve academic achievement of minority students; more importantly, it helps to displace deficit thinking to a certain extent (Skrla & Scheurich, 2004.) In the interviews, all of the superintendents admitted to experiencing a change in their thinking away from deficit thinking. Superintendents, in all four districts, made changes to their vision and mission moving away from the deficit model, in turn the new expectations then trickled down to principals and teachers. Moreover, the displacement of deficit thinking in the superintendent was very influential in moving the entire school district away from deficit practices.
Intervention Programs that Challenge Deficit Thinking

The literature available has presented a number of successful programs that challenge deficit-thinking practices. Programs such as Calvert program, Knowledge is Power Program (KIPP), High School Puente, Advancement Via Individual Determination (AVID), Meyerhoff Scholar Programs and Emerging Schools Program, focus on a rigorous curriculum, high expectations and strong social support (Closing the Gap, 2004). The data shows that these programs, designed to attract and educate minority or underachieving students, have experienced some degree of success. For example, 93% of KIPP’s students in North Carolina passed the state reading exam in 2002 and 95% of AVID’s graduates enter college and 80% are still there two years later.

Recommendations for Change

Pre-Service Teacher

The lack of congruity between teachers and minority students- that is, the lack of understanding of a student’s cultural background, which can lead to lower teacher expectations, has been linked as a primary cause for student’s underachievement (Lunenburg & Ornstein, 2008; Talbert-Johnson, 2006). One recommendation for doing away with deficit thinking is for colleges and pre-service programs to take the lead in bringing about change. Improved knowledge of the subject matter is insufficient. To ensure equitable education, teachers must have a deep understanding of both, the cultural differences between themselves and minority students, and awareness of their personal feelings or dispositions towards these students. It is incumbent on teachers to develop a positive disposition towards their minority students (Talbert-Johnson). This may be difficult to do because disposition is difficult to identify, define, measure and change. What is certain is that it is critical that teachers are guided to recognize their mental models or personal beliefs and how these will influence their instructional decisions.

Critical Race Theory

Other researchers suggest that the elimination of deficit thinking requires a replacement model that incorporates social justice in education. One such idea is the inclusion of Critical Race Theory (CRT) in teacher preparation programs (Solorzano, 2001). According to Solorzano, CRT is a framework, in teacher education, that examines the way racism and cultural deficit theories have impacted the education of students of color. CRT defines “White racism” as a practice in which one group has and exerts power over others based on race (Marx, 2004). CRT challenges deficit thinking through the examination of five themes; (a) The Centrality and Intersectionality of Race and Racism, (b) The Challenge to Dominant Ideology, (c) The Commitment to Social Justice, (d) The Centrality of Experiential Knowledge and, (e) The Intersdisciplinary Perspective (Solorzano). The author proposes the use of CRT to prepare teachers to recognize racism and stereotypes, therefore providing an avenue for teachers to recognize the strengths as opposed to the deficiencies within students and communities of color.

Democratic Education

Richard Valencia (1997) offers an alternative idea to eradicate deficit thinking through the incorporation of democratic education in public schools. The primary goal of democratic education is to prepare students to be capable citizens sharing equal status and rights. Democratic education must include the teaching of four requirements; the knowledge that will allow all to participate equally, the guarantee of freedom of expression and due process, the skills to ensure equal power, and the equal encouragement of all. Democratic education would necessitate serious changes in curriculum, which could come into conflict with current state mandated requirements. Examples of democratic education are Central Park East elementary and secondary schools, Upward Bound programs and New Careers.
Implications

The implications of this review are clear. Closing of the achievement gap between Hispanics and White students will only occur when deficit thinking is completely eradicated from educational practices (Valencia, 1997). Studies discussed here examined evidence of some of the deficit thinking practices that are prevalent in schools today and the deficit thinking exhibited in teacher disposition towards Hispanic students. These studies suggest that deficit thinking may be a principal cause for students of color underachievement. Recommendations for change include, changing teacher dispositions through self-reflection and education, recognition of deficit thinking and its effect, communicating high academic expectations to Hispanic students, and the implementation of curriculum that demands equalitarian instruction for all students.

Colleges and pre-service programs have the responsibility to ensure that teachers are aware of their cultural predispositions when teaching children of color. When assessing Hispanic students for giftedness, teachers must have a clear understanding of the cultural background of Hispanic students. Teachers must not only have the necessary content knowledge and skills but also have positive dispositions towards students of color and recognize their strengths over their deficiencies if they are to be effective. Moreover, teachers must communicate high expectations to their students and develop the appropriate attitudes and skills needed when teaching Hispanic students.

Additionally, school districts must provide the appropriate and necessary staff development to educate teachers, principals and district leaders to recognize deficit-thinking practices and develop awareness of the harmful effects of deficit thinking. School districts must put in place programs and policies that counter deficit thinking. Further research needs to be conducted to determine how to influence teacher dispositions towards students. Additionally, research that identify effective programs that can transform the thinking of educators from seeing deficiencies to seeing cultural richness in their students of color is needed.

References


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