Situativity as a Thread in a Multicolor Quilt of Education

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Abstract: What does it mean to learn or understand? Situated learning posits that understanding/meaning/learning are all relative to actions. Knowledge is inextricably bound to contexts: to do is to know, and all knowledge is situated in social, physical and cultural contexts. This is the foundation for situated learning: it is social and a person's identity is part of belonging to a culture through participation/interactions in that culture. Learning needs to be situated, this author feels that people should be encouraged to maintain their culture and beliefs and values within the post-secondary school system. The power of culture is strong.

**Keywords**: Situativity Theory; Education

Knowledge Focus: Research/Theory

Topic: Postsecondary Education & Employment

African American (AA) students are underserved in public schooling. Research shows that historical, social, cultural, economic, political, racial/ethnic, and urban/rural experiences have all been suggested factors resulting in a gap in the achievement levels between AA and White learners (Cameron & Heckman, 2001; Heckman & LaFontaine, 2010; Madison, 2007; Mickelson, 1990; Warren & Halpern-Manners, 2007). This author posits that situative theory should be applied in classrooms to offer a strong educational experience that can support AA students, and consequently other diverse students. This paper explores reasons why African American (AA) students are underserved in public schooling.

The premise of a public formal education system, according to the United States Department of Education (USDOE), is to "promote student achievement and preparation for global competitiveness by fostering educational excellence and ensuring equal access" (USDOE, n.d.). That system is failing African Americans. According to the National Center for Education Statistics (NCES), in 2009, AA students had a graduation rate of 63.6%, while the graduation rate for White students was 80.6%. (NCES, 2010). AA students have not been succeeding at the same rate as White students. This divide has been consistent over decades. Figures 1 and Figure 2, below, show the math achievement gap on an American national scale between AA students and White students over a period of twenty-five years. The graphs have been separated to reflect a transition in scoring in the testing calculations. The gap is also evident in reading and science. This achievement gap within the AA community indicates a shortcoming within the education system.

Figure 1. Math Achievement Gap in the United States. United States Department of Education
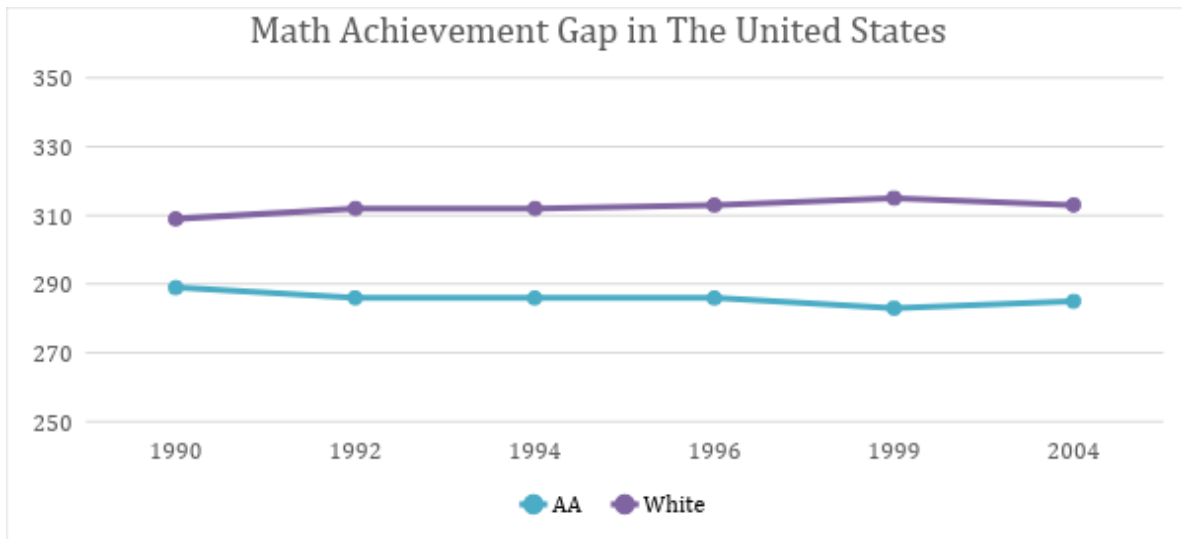
Figure 1 Image Description: "Math Achievement Gap in the United States" is a line graph with two year increments from 1990–2004 (x-axis) and scores in 20 point increments from 250–250 (y-axis). Data represents AA students (blue) and White students (purple).

Figure 2. Math Achievement Gap in the United States. United States Department of Education
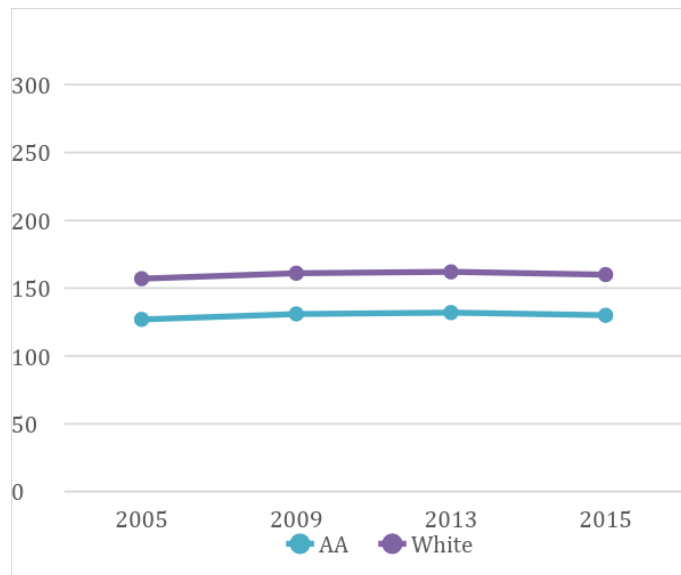
Figure 2 Image Description: A line graph with four year increments from 2005–2015 (x-axis) and scores in 50 point increments from 0–300 (y-axis). Data represents AA students (blue) and White students (purple).

These figures are relevant because they demonstrate the very clear differences between White and AA learners. While the gaps have fluctuated—greatest in 1999 and least in 1990), during the time range of 2005–2015—it has remained at 40 points. Such a gap indicates a problem, and demonstrates the pattern over time of AA students being compromised in a system

designed to empower all students, while failing three specific groups: African American, Latino American and Native American (AALANA).

Warren (2007) states that the attainment divide between AA students and White students has narrowed over time, but acknowledges that is still an urgent social problem. While it is critical to recognize the societal problem of a high dropout rate for an underrepresented population, the facts do not support Warren's assertion that the attainment gap has narrowed over time.

Heckman & LaFontaine (2010) dispute past claims in literature such as Warren's that the gap has narrowed; the divide between AA learners and White learners has remained essentially the same since the 1950's. McLanahan (2004) states that there is significant evidence that children raised in adverse circumstances such as single-parent homes, are more likely to drop out of high school (as cited in Heckman & LaFontaine, 2010). No consideration was given to socioeconomic conditions for a single parent, and whether or not that could be a contributing factor to the drop-out rate. Regardless, the outcome is that there has been little change, and the dropout rate for AA students remains consistent over time.

Factors in Success or Failure

Mickelson (1990) provides an interesting theory based on the concept of abstract and concrete values. Mickelson calls it the attitude achievement paradox, wherein Black youths and adults express a high regard for education, despite having poor academic performance. The two defining features are abstract attitudes which reflect the beliefs, values, morals and attitudes that the majority of society exhibit. The concrete attitudes are the ones that inform life experiences. Within abstract values lies 'global' expressions, such as education being the cure for cultural problems, poverty, and unemployment. It helps crystalize the American dream, along with the hopes of the future. The concrete values are race-specific, are based on individual reality, and come from family and community experiences. Class, race, and gender issues shape efforts made in school and are expressions of students' culture. Culture encompassing family background, race, class, socioeconomic status (SES) status are critical to the social context of promise and reality for AA's, and that cultural belief fuels the low attainment rate. Mickelson agrees with Ogbu (1978) that this is a major reason why Black students perform less well on the average, than do the majority of non-Black youths.

According to Mickelson (1990), this theory is reinforced by Parkin, who states that industrial societies have systems both dominant and subordinate; one is a reflection of society's norms (i.e., dominant/abstract) and the other situationally specific to students' lives (concrete). Parkin notes that most social science research neglects the dominant values and instead focuses on the abstract values (as noted in Mickelson, 1990). Factors used by Mickelson (1990) were similar to Cameron and Henckman (2001) in terms of examining SES, education levels, education levels of parents, and race as factors in attainment gaps. Mickelson demonstrates the

difference of the abstract/concrete average between Black and White respondents is significant and therefore belief systems; personal/family, societal and academic all come into play in academic success.

There were some shortcomings to Mickelson's work. The same size reflected only seniors taking a social studies class. The schools were not random, and the results are therefore not generalizable, as Mickelson (1990) notes. There are other possible reasons why Blacks fail, and Mickelson does not seem to spend much time dwelling on confirming or discounting alternate reasons. As Mickelson notes, Ogbu posed a good question when asking why Blacks say that education is important, and then form minimal relationships with education (as noted in Mickelson, 1990). Mickelson ends the paper with a very astute point: "Young blacks are not bewitched by the rhetoric of equal opportunity through education; they hear another side of the story at the dinner table" (Mickelson, 1990, p. 59). The power of culture is strong.

Situated Learning

What does it mean to learn? What does it mean to understand? While once a part of psychology, philosophy, and anthropology, the works of Lave & Wenger (1991) have challenged teachers and learners to re-examine how learners learn. Their concept of situated learning posits that understanding/learning/meaning all are relative to actions. Knowledge is inextricably bound to contexts: to do is to know, and all knowledge is situated in social, physical, and cultural contexts. This is the foundation for situated learning. Lave says that education needed to rethink the historical, social and cultural sides of learning; that it was not cognitive or constructivist in nature, but social. Lave also argues that the creation of a person's identity is part of belonging to a culture through participation in that culture (Lave, 1991, p. 71). She cites Cain as saying that "Alcoholics Anonymous (AA) is a cultural system. No one is born into it, and all of the beliefs in the system have to be learned" (as cited in Lave, 1991, p. 212). That same kind of development happens with situative learning.

Lave and Wenger (1991) write of a process of learning that is very different from school practice learning. They call the process Legitimate Peripheral participation, where the community is the focal point and learning is a negotiated process (Lave & Wenger, 1991). They state that there is a spiral character of changes that happens; changes in community practices as well as displacements of people in the community. This spiral method is nothing new to education; it is merely the players and events that have changed. Lave and Wegner's (1991) work dealt more with Yucatec midwives and members of Alcoholics Anonymous; and in their work, they acknowledge that they don't talk about schools or explore their work in relation to schooling, but schooling by nature is part of culture, and the themes are certainly relevant. The greater concern is the learning: "The learning. We hope to make it clear as we move forward, that learning through legitimate peripheral participation takes place no matter what form education provides the context to learn, or even if there is an intentional educational way" (Lave &Wenger, 1991, p. 8).

Brown, Collins, and Duguid (1989) address the culture of learning in relation to situated cognition. The studies move away from the apprenticeship model and into the classroom where situative-cognition becomes a socio-cultural model of teaching and learning. They deny that concepts are self-contained abstracts, and relate conceptual knowledge to tools. "Tools share several significant features with knowledge: they can only be fully understood through use, and using them entails both changing the user's view of the world and adopting the belief system of the culture in which they are used" (Brown, Collins & Duguid, 1989, p. 7). Just as people adapt to tools, they also pick up jargon, behavior and norms of another culture, successfully (Brown, Collins & Duguid, 1989, p. 34). Culture is who people are; from birth (bestowed) to learning to read and write, in educational, home, community and work-place environments. People fill a metaphorical backpack of slang, behaviors, beliefs, values, mannerisms and norms that they carry with them throughout daily life. The denial of abstract concepts is an important one. Brown, Collins & Duguid (1989) state that abstract concepts lead to faulty learning—not grounded in real situations involving social interactions, nor situationally-dependent. It is the tools and the socio-cultural aspects that play an important role in situated cognition, and may result in supporting AA learners, should the theory be implemented in the K-12 classroom.

Greeno (1998) believes that a situated approach accommodates both behaviorist and cognitive perspectives, serving as a sort of framework in the 'new' theory. He feels that the situated perspective recognizes the need for and relevance of a variety of strategies. In "The Situativity of Knowing, Learning, and Research" Greeno considers three theories: behaviorist, cognitive and situative, with situative as the primary support structure, confident that the elements of all three theories could live in unison. It seems however that this theory will have a dual nature: one side that tells us what should be done, and the other side telling us how to do it. Greeno talks in terms of a formal position statement regarding situativity. He urges people to understand the importance of organizing activities and environments or any place that provides opportunities for knowledge and skill acquisition. This is to be done to help students develop strong identities as learners, and become effective participants in their lives (Greeno, 1998).

Becoming effective participants means being vested in and understanding your individual, family, classroom culture along with the environmental perspective. Nasir and Hand (2006) elaborate on the benefits of a situative approach to learning. They state that it is the understanding of learning, the development needs for all students that place culture at the center of concern in learning. One can examine, with the social and cultural processes, how individuals participate, and how they rely on people and items to solve problems. The one thing that is missing is the issue of race. Nasir and Hand point out, "while sociocultural theories offer frameworks for the conceptualization of multiple factors, processes, and levels of analysis they have not tended to include the pointed discussion about race and power that is required to understand race, culture, and learning in America schools" (2006, p. 450).

Nasir and Hand elaborate on multiple theories explaining the relationship between culture, race, and learning processes. Some strategies to reduce barriers to learning have included minority cultural ways of knowing and doing, increased representativeness in curricular materials, and increasing participation by minority families in school (Nasir & Hand, 2006). While the scope of this review is to consider AA learners, Nasir and Hand feel it is important to recognize that intervening research has tended to focus on only one minority, and that theories and interventions must examine underlying issues, and not merely provide better representation in educational materials (Nasir & Hand, 2006). While research has focussed on specific minority groups, there are specifics to each culture that differ from others, as well as some that are similar. Providing a 'one size fits all' may turn into an educational error.

The focus on culture within the situative theory would benefit African American learners in the classroom. With a stronger and more inclusive footing, it is possible that success would follow diverse learners to and through college.

Author

Catherine Beaton is an associate professor at the Rochester Institute of Technology in the department of Information, Sciences and Technologies. Her interest areas are Human Computer Interaction (HCI), ethics, and accessibility. She is also a student at the University at Buffalo where she is in the curriculum, instruction and the science of learning program. Between work and school her desire is to examine education in terms of accessibility with ethical overtones.

Image Description: Photo of Catherine Beaton

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