

Title: Culturally Relevant Instruction: Exploring the Influences
Achievement of Targeted Groups

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Culturally Relevant Instruction: Exploring the Influences upon Achievement of Targeted Groups

Reform in education promotes education for all but the disparity of scores on standardized measures indicate education for all does not aptly describe the current state of affairs. In relation to their White counterparts, African American students (also referred to as Black) achieve at lower levels; this gap has been examined for decades and has been attributed to many factors. One of the factors frequently examined in relation to achievement is culture; falling within the domain of culture this project addressed the cultural mismatch between minority-home/community culture and school culture (Irvine, 1990; Lessow-Hurley, 1986). The cultural mismatch was investigated via culturally relevant teaching, instruction that uses cultural referents to anchor knowledge and to facilitate conceptual understanding. More specifically, a quasi-experimental, ethnographic case study was used to examine the following: In what ways is the achievement of African American students influenced by instruction that is culturally relevant with regard to Black cultural values? Even though culturally relevant teaching is applicable to all subject areas (Ladson-Billings, 1995; Tharp, 1989), this project was delimited to science, an area in which the culturally relevant perspective is rarely used and an area in which the underachievement and under representation of African Americans is well documented.

Theoretical Frame. In the late 1960s when theories positioned low achievement of minorities in a discourse of cultural deficiency, a group of scholars emphasized cultural difference. With regard to African Americans, these propositions purported a unique cultural ethos that conflicted with the culture of mainstream America, and therefore, schooling. As described by Nobles (1980), the Black cultural ethos (BCE) is a derivation of West African beliefs, values and traditions and, notwithstanding the immense variability among Blacks as a group, characterizes the way African Americans perceive, interpret and interact with the world. Boykin (1986) conceptualized BCE by articulating nine dimensions. Seven of the nine dimensions are relevant to this project and are briefly described: 1) harmony-emphasizing versatility and wholeness, 2) movement-interweaving the ideas of rhythm often associated with music and dance into everyday life, 3) verve-preferring intense stimulation, variability, and action that are

energetic, active and colorful, 4) affect-placing a premium on feelings, emphasizing a special sensitivity to emotional cues, and cultivating emotional expression, 5) communalism-committing to the interdependence of people and to connectedness that esteems social bonds and responsibilities over individual privileges, 6) expressive individualism-cultivating a distinct personality and a proclivity for spontaneous, genuine personal expression and 7) orality-emphasizing oral and aural modes of communication. The link between Black culture and achievement has been examined; the previous studies found that the minority children performed more tasks correctly within an environment that was culturally relevant to them (Allen & Boykin, 1991; Boykin, 1982; Boykin & Allen, 1987). Based upon the earlier work, it was expected that the science achievement of the African American students would be positively affected by way of culturally relevant instruction.

Project Design. Three middle school teachers that work with a large African American student population from low-income backgrounds participated. A low-income population was selected because such communities are perceived to be somewhat isolated from mainstream America and are likely to be committed to BCE (Boykin, 1994). Three eighth grade science classes, the age at which interest in science declines (Doherty & Dawe, 1988; Yager & Penick, 1986), were examined. In one class, the control group, the participating African American teacher continued instruction as usual and submitted documentation on how the topics within the selected units were taught. In the other two classes, the experimental groups, one White and one Black teacher taught as usual for a portion of the selected units, participated in an intervention and taught the remaining portion of the assigned units in a way that was culturally relevant to Black students.

First, the students in the classes completed a science assessment instrument comprised of publicly released items from the National Assessment of Educational Progress and Third International Mathematics and Science Study test banks and a demographic survey that ascertained the students' backgrounds and their experiences with science (Kahle, Meece & Scantlebury, 2000). To enhance uniformity in interpretation and alleviate any difficulties related to reading literacy, the instruments were read aloud to the class and students' questions, if any, were answered. Prior to the intervention, the instruction of the teachers in the experimental group was videotaped; these tapes were

analyzed via SATIC instrument for the purposes of comparing instruction before and after the intervention. Second, the teachers in the experimental group participated in an intervention that consisted of one-on-one professional development activities. These videotaped activities facilitated the development of culturally relevant science lessons for the remaining topics in the selected science unit. Third, the culturally relevant science lessons were implemented and videotaped. Fourth, the students in the experimental group and the control group completed the science assessment instrument for a second time; the gains or losses from the pretest to the posttest were compared across groups using non-parametric measures and students experiencing extreme gains or losses were interviewed. The impact of the culturally relevant instruction from a student perspective was examined by using a computerized version of Glaser's and Strauss' (1967) constant comparative method to identify conceptual patterns from the data obtained from semi-structured interviews and these patterns were compared to the information obtained from the videotapes and the discussions with the teachers.

Findings. Two sets of preliminary findings were presented at the conference: 1) quantitative results identifying the achievement differences according to type of instruction, and 2) qualitative results describing the impact of culturally relevant teaching practices upon students who were disparate in terms of achievement.

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