This paper presents research, theory, and practice that indicate different cultures have different cognitive styles and that culturally diverse students become more successful learners when these differences are taken into account in the classroom. This theory of "culturally mediated education" enriches the conceptual basis of the learning, or student-centered, paradigm, making it a powerful alternative to the widely used unmediated instruction, or teacher/content-centered, paradigm. The paper describes the Nairobi Method's successful culturally mediated approach to education, which purports that miseducated adults can be motivated through intellectual excitement, knowledge of the educational system, and their own history. African-American learners utilize strategies that are universalistic, intuitive, and person-oriented. This cognitive style contrasts markedly from that of learners who are most successful in the Eurocentric schooling process, and who employ an information processing strategy that is sequential, analytical, or object-oriented. American community colleges now support the learning paradigm and the vision of the learning college. However, if African-American learners are to benefit from this important paradigm shift in the community college, the following recommendations for classroom practice deserve careful consideration: each learning facilitator must explore his/her values, opinions, attitudes, and beliefs in terms of his/her cultural origin; and each learning facilitator must create an empowerment culture for learners in the classroom and beyond. (Contains 78 references.) (JA)
Running head: Culture, Style, and Cognition

Culture, Style, and Cognition:

Expanding the Boundaries of the Learning Paradigm for African-American Learners in the Community College

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Abstract

Culturally diverse students, especially African-Americans, are generally not successful in classrooms that ignore cultural differences. This paper presents research, theory, and practice that indicate different cultures have different cognitive styles, ways of processing information, knowledge, and experience and that culturally diverse students become successful learners when these differences are taken into account in the classroom. This theory of culturally mediated education enriches the conceptual basis of the learning, or student-centered, paradigm (Barr & Tagg, 1995) making it a powerful alternative to the widely used unmediated instruction, or teacher/content-centered, paradigm. The paper describes the Nairobi Method’s successful culturally mediated approach to education and discusses the implications for the community college.
Culture, Style, and Cognition: Expanding the Boundaries of the Learning Paradigm for African-American Learners in the Community College

The application of existing theories of learning and instruction has not improved the academic performance of presently under-served populations, most especially African-American learners. A fundamental tenet of the learning (student-centered) paradigm (Barr & Tagg, 1995) is that colleges must do more for under-represented groups, such as African-Americans, than open doors to higher education; colleges must take responsibility for producing student success. The current theory base for Barr and Tagg's learning paradigm, which frames learning holistically, offers a powerful alternative to the atomistic model of the instruction (instructor- and content-centered) paradigm. However, a new theory more directly linking culture, information processing, instruction, and how the brain learns is needed to transform classroom practice for culturally diverse learners. Such a theory of cultural mediation in instruction extends the conceptual base underlying the learning paradigm and offers the promise of student success for African-American learners.

This paper will explore issues that have not been covered in a minority context, and will identify current research and examine the implications for classroom practice for community colleges. Specifically, the paper will answer the following questions:

- What are the characteristics of African-American cognitive style?
- What are the linkages between how the brain learns, culture, information processing, and instruction?
- What are the components of a theory of cultural mediation in instruction?
- How does a theory of cultural mediation in instruction extend the conceptual base of the learning paradigm?
- How does practice based on a theory of cultural mediation in instruction offer concrete solutions to improving classroom practice for African-American learners in the community college?
Characteristics of African-American Cognitive Style

The learning process involves interpreting sensory events, categorizing the information into familiar categories, searching memory for similar experiences and ideas to which the information relates, and manipulating ideas, images, and concepts. A learner's approach to perception, memorization, thinking, and using any type of knowledge is inextricably bound to the patterns of activity, communication, and social relations of the culture of which he/she is a member (Cole & Scribner, 1974).

In an impressive body of original research on the cultural foundations of African-American thought, Shade (1978, 1981, 1982, 1983, 1986, 1989; Shade & Edwards, 1987) has argued that all learners are not alike, cannot be treated in the same manner, or exposed to the same instructional methodologies. The focus on cognitive style—along with a focus on brain-based education (Barinaga, 1995; Caine & Caine, 1997; Fischbach, 1992; Gregory, 1987; Healy, 1994; Hull, Rose, Fraser, & Castellano, 1991; Jacobs, Schall, Schcibel, 1993; Jensen, 1998; Kandel & Hawkins, 1992; Martinez & Martinez, 1987; Milgram, MacLeod, & Petit, 1987; Petit & Markus, 1987; Rose, 1988, 1995; Smilkstein, 1993, 1998; Sylwester, 12/1993-1/1994, 1995; Zinn, 1980)—does, however, suggest that all learners can learn the same content and information when educators are willing to fit it to their students' particular—and culturally determined—cognitive and affective behaviors and to how the human brain naturally learns.

An examination of the culture and Weltanschauung of African-Americans reveals a culturally specific method of organizing and processing information (see Table 1). African-American learners utilize strategies that are rather universalistic, intuitive, and, most importantly,
person-oriented. This cognitive style contrasts markedly from that of learners who are most successful in the Euro-centric schooling process, and who employ an information processing strategy that is sequential, analytical, or object-oriented (see Table 2).

Insert Table 2 About Here

Viewed from another perspective, the comparison of African and European philosophical assumptions (see Table 3) suggests that African-American learners tend to view things in their environment in entirety rather than in isolated parts, seem to prefer intuitive rather than deductive or inductive reasoning, tend to approximate concepts of space, number, and time rather than aiming at exactness or complete accuracy, prefer to attend to people stimuli rather than nonsocial or object stimuli, and tend to rely on nonverbal as well as verbal communication (Anderson, 1988, 1992, 1995; Heath, 1982, 1983; Hilliard, 1976).

Insert Table 3 About Here

The evidence that learners might not learn in the same manner and might, in fact, develop rather diverse cognitive strategies for processing information provides clear impetus for proposing ways to develop culturally compatible classrooms and other learning situations that incorporate all cultures and learning styles as well as the brain’s natural learning process. Until and unless we find ways to make classroom and institutional practices in the community college multicultural, multicognitive, and brain-based, the vision of the learning-centered community college shall remain ephemeral for African-American and other learners of color.
How the Brain Learns and Linkages with Culture, Information Processing, and Instruction

This section describes the brain's innate learning process and the effect of this process on how and what a person learns and thinks. It also focuses on the relationship between the brain's learning process, a person's culture, how a person processes information, and implications for instruction.

The brain is a physical organ in the body; and, like every other body organ, it has evolved to perform—indeed, is impelled to perform—specific functions; it innately knows what to do and how to do it. The brain has a wide range of functions, from maintaining the body's temperature to regulating all the body systems. However, of most importance to educators is that three of the brain's major functions are to learn, think, and remember. Neuroscience research shows that the brain's impulsion and ability to perform these functions are indeed innate and natural. For example, 5- to 12-week-old infants are "capable of perceiving, knowing, and remembering [and] begin to grasp the complexities of their world" (Bransford, Brown, & Cocking, 1999, p. 72). Healy (1994), in reviewing the research, reports the same phenomenon: human beings are natural and apt pattern-seekers, thinkers, and learners from birth.

Brain research gives us a clear picture of what happens in our brain when we are learning. As—and because—we experience, explore, interact with, practice, become familiar with, try to make sense of the objects of interest or phenomena in our environment, whether family, community, or classroom, specific physiological events naturally occur in our brain. Some of our approximately one hundred billion brain nerve cells (neurons) grow fibers (axons and dendrites). These fibers reach out and make electro-chemical connections (synapses) with other neurons and their fibers. This growing and connecting of fibers construct increasingly more complex neural
networks. The growing, connecting, and constructing of these physiological structures is learning, and the new neural networks that are constructed are our understanding and knowledge of any and every experience, phenomenon, concept, skill, or body of information. Thinking about what is being learned, or has been learned, results from the activities of the electro-chemical pathways between neurons. The brain does this physiological work on its own. We do not yet fully understand how the brain knows where and how to grow dendrites, create synapses, construct neural networks and activate these structures to perform learning, thinking and memory functions.

However, the first rule or requirement for learning is that new dendrites, synapses, and neural networks (i.e., new knowledge) must physiologically grow from what is already there (what is already known or present in the brain). These physical knowledge structures do not just appear, growing out of nothing—no more than a tree branch can grow unless it grows out of a structure (a branch or trunk) that already exists. Piaget (1973), the biologist and child psychologist who “founded the field of cognitive development as we know it” (Bjorklund, 2000, p. 99), identified the original structures preceding all subsequent learning as the innate instincts or reflexes with which babies are born:

Between the newborn child’s almost entirely reflex behavior . . . and the appearance of language or of the [abstract thinking] function, there exists a series of levels . . . . In the first of these stages, certain complex reflexes, like those of sucking, give rise to a kind of exercise and of internal consolidation due to their functioning, which announce the formation of [the knowledge structure of this action]. (pp. 65-66)

According to Piaget, it is only from earlier knowledge structures that higher-level knowledge structures can grow and develop, leading to higher and higher levels of skill and understanding. Do all students have general structures in common or does each student have an
individual, idiosyncratic foundation of knowledge and function structures or do students from the same culture have a similar, culture-based foundation or is it some combination of these? An extensive study of the newest findings in educational and neuroscience research suggests an answer (Bransford, Brown, & Cocking, 1999). “The key finding [in this two-year study] is the importance of experience in building the structure of the mind by modifying the structures of the brain: development is not solely the unfolding of preprogrammed patterns” (p. xvi). More specifically, the study finds that:

Participation in social practice is a fundamental form of learning. Learning involves becoming attuned to the constraints and resources, the limits and possibilities, that are involved in the practices of the community. Learning is promoted by . . . social environments, through the kinds of activities in which adults engage with children. These activities have the effect of providing to toddlers the structure and interpretation of the culture’s norms and rules, and these processes occur long before children enter school. (p. xii)

Further, Bransford et al. report that “[n]euroscience . . . is showing how learning changes the physical structure of the brain and, with it, the functional organization of the brain” (p. 4). Thus, not only do environmental experiences and caregivers shape children’s capacities, but “[d]evelopmental processes involve interactions between children’s early competencies and the environmental supports—[physiologically] strengthening relevant capacities and pruning the early abilities that are less relevant to the children’s community, [l]earning is promoted and regulated by both the biology and the ecology of the child” (p. xv). In other words, by the time children get to school, knowledge structures that infants might have developed that are not supported or reflected by their culture have disappeared. In short, children’s brain structures have
been physiologically altered to make them conform to the functions and knowledge structures of their culture. This, of course, has profound implications for how students process information and for instruction.

In terms of instruction, Bransford et al. identify the "foundational role of learners’ prior knowledge in acquiring new information . . . [and] the importance of social and cultural contexts in learning" (p. xix). Moreover, "[w]ork in social psychology, cognitive psychology, and anthropology is making clear that all learning takes place in settings that have particular sets of cultural and social norms and expectations and that these settings influence learning . . . in powerful ways" (p. 4).

Consequently, educators need to be aware that each student brings to school his or her own foundation of specific, culture-based functions and structures, and it is only from this foundation of knowledge and skills that the student’s new learning can develop: “Effective instruction begins with what learners bring to the setting; this includes cultural practices and beliefs . . . [L]earners use their current knowledge to construct new knowledge and what they know and believe at the moment affects how they interpret new information” (p. xvi).

If the functions and structures that students of whatever age bring to school are not compatible with, are not expected by, are not provided for nor respected and valued in the
curriculum and pedagogy of the classroom, then the students will be at a critical academic, emotional, and social disadvantage in that unfamiliar world. These students will not be just less successful than those students whose functions and structures are adapted to—have been tailor-made for—that classroom, they will not be just less educated nor uneducated; they will actually have been miseducated. The antidote is the student-centered learning paradigm.

Ladson-Billings (1995) has observed the following:

"[L]earner centered" refers to environments that pay careful attention to the knowledge, skills, attitudes, and beliefs that learners bring to the educational setting. This term includes teaching practices that have been called "culturally responsive," "culturally appropriate," "culturally compatible," and "culturally relevant"... Teachers who are learner-centered recognize the importance of building on the conceptual and cultural knowledge that students bring with them to the classroom” (pp. 465-491).

**Toward A Theory of Cultural Mediation in Instruction**

Hollins has proposed a theory of cultural mediation in instruction to explain the relationship between culture and instruction. The theory of cultural mediation in instruction, although focused on K-12 populations, offers a powerful alternative for community college educators committed to designing classroom and institutional practices that are both multicultural and multicognitive, and responds to the challenges presented in the preceding discussion.

A full explication of the classic and contemporary research supporting the theory of cultural mediation in instruction is beyond the scope of this paper. Readers are directed to the seminal work of Hollins in this area (Hollins, 1982, 1990, 1996; Hollins & Spencer, 1990). Hollins (1996) offers the following rationale for the theory:
The basic premise underlying the theory of cultural mediation in instruction has two components based on the centrality of the students' home-culture in framing memory structures and mental operations. First, teaching and learning are more meaningful and productive when curriculum content and instructional processes include culturally mediated cognition, culturally appropriate social situations for learning, and culturally valued knowledge. Second, the authenticity of schooling is validated for students by the interactions and relationships between adult members of their community and school personnel. (pp. 137-138)

**Culturally Mediated Cognition**

Culturally mediated cognition in instruction refers to approaches using the ways of knowing, understanding, representing, and expressing typically employed in a particular culture (Hollins, 1996, p.139). As is evident in the comparison of African and European cognitive style and philosophical assumptions (see Tables 1 -3), there are variations among cultures in the ways of knowing and understanding (see also Hall, 1989). Culturally mediated cognition requires knowing and using these differences in classroom instruction.

**Culturally Appropriate Social Situations**

Culturally appropriate social situations for learning refers to relationships among students and between teachers and students during classroom instruction that are consistent with cultural values and practices (Hollins, 1996, p. 139). For example, Hoover, McPhail, and Ginyard (1992) describe a culturally appropriate literacy approach for adults, the Nairobi Method, that emphasizes group approaches to reading and writing instruction. Such an approach builds on the ontological (collectivism/”we-ness”), epistemological (affect/symbolic), and axiological (cooperation/harmony) assumptions of the “African way of knowing” and demonstrates the centrality of social arrangements to effective learning (see also McPhail, 1979).
Culturally Valued Knowledge in Curriculum Content

Culturally valued knowledge in curriculum content refers to the inclusion of knowledge valued within the students’ home-culture (Hollins, 1996, p.139). McPhail and Morris’ (1986) application of cultural content such as popular rhythm-and-blues song lyrics and the poetry of African-American writers to raise the reading achievement levels of inner-city junior high school students is an example of this approach. Hoover’s (1982) use of themes in African-American culture in teaching basic (and other) critical communications skills to African-American college students has resulted in substantial growth in basic skills levels in just one year of developmental education. Finally, Spears-Bunton (1996) documents the power of multicultural and multicognitive classroom strategies through the introduction of African-American literature in an eleventh-grade honors English class. African-American and European-American students were able to cross perceptual, gender, and cultural lines as they responded to literature and confronted difficult issues of race, sex, and class.

This approach works because it is compatible with how the brain learns. The brain is best able to start learning new materials, concepts, and skills when learners can make a connection between the new object of learning and something they already know or have experienced and are invited to do their own thinking about this connection. Giving students the opportunity to start where they are, to interact with materials and ideas with which they can make a personal connection and about which they can do their own thinking, is the essential first step in the brain’s natural learning process. Starting with this kind of activity makes it possible for students of whatever culture, gender, cognitive, and perceptual style to begin to successfully learn new material and ideas, i.e., grow and connect new neural fibers and construct new neural networks.
Extending the Conceptual Base of the Learning Paradigm

Barr and Tagg (1995) have defined the theoretical foundations of the learning paradigm which, in turn, support the aims, values, and purposes of “the learning college” (O’Banion, 1997a, 1997b). Barr and Tagg (1995) argue that:

A paradigm shift is taking hold in American higher education. In its briefest form, the paradigm that has governed our colleges is this: A college is an institution that exists to provide instruction. Subtly but profoundly we are shifting to a new paradigm: A college is an institution that exists to produce learning.

This shift changes everything. It is both needed and wanted. (p. 13)

Table 4 presents a comparison of the educational paradigms at the level of Learning Theory.

The learning paradigm frames learning holistically. It also incorporates the brain’s natural learning process. The congruence of this holistic, brain-based approach to learning with the cognitive preferences and cultural practices of African-American learners is apparent in Table 5.

The two perspectives outlined in Table 5 provide the input for the theory of cultural mediation in instruction. Such a theory, when combined with an understanding of how the brain learns, posits a powerful pedagogy for framing classroom practice for African-American learners in the learning-centered community college.
From Theory to Practice

We return to Hoover, McPhail, and Ginyard (1992) for a fuller explication of the Nairobi Method, a concrete example of the theory of cultural mediation in instruction as applied to adult literacy instruction. Development of the Nairobi Method began in 1969 in a community-oriented, independent African-American college (Nairobi) located in East Palo Alto, California. The pioneering work of Mary Rhodes Hoover resulted in an approach to learning that incorporates culturally mediated cognition, culturally appropriate social situations, and culturally valued knowledge in curriculum content in adult literacy instruction with miseducated, culturally and linguistically different African-American adults. "Miseducation" implies that instruction proven to be effective for African-American learners has not been provided to them in school (see also Woodson, 1933). This is a problem caused by the educational system, not by the learners. To date, we have verified that the Nairobi Method has been used in a variety of academic settings, including adult literacy centers, General Educational Development (GED) programs, two-and four-year colleges, developmental programs, reading labs, prisons, community agencies, and JTPA programs.

Heath, in her groundbreaking ethnographic studies (1982, 1983), provides evidence that validates Hoover's view. Heath identified the cause of the less-successful academic performance of working-class African-American students in a newly integrated Southern elementary school. She discovered that the socialization of children in the area's working-class African-American community (e.g., they learned through stories and personal-experience-based interaction) was different from the socialization of children in the area's middle-class--both African-American and European-American--communities (e.g., they learned through question-and-answer interaction) and that the integrated school expected all students to come to school socialized in the middle-class way. Students who had not been so socialized were, thus, at a significant disadvantage.

The Laboratory of Comparative Human Cognition (1982) came to the same conclusion: "[C]hildren . . . act on and interact with their environment. What they come to know is the form
of this interaction. . . . Cultures may differ in the extent to which their particular practices provide opportunities for experiences [of the kind expected and assumed by the educational system]" (p. 665).

**Philosophy**

The Nairobi Method is rooted in a philosophy that is designed to encourage miseducated, culturally and linguistically different adults to believe that a literacy education can make a positive difference in the way they live their lives. The philosophy recognizes that a lack of promotion of the miseducated's culture and history suggests that they do not have a background from which to grow and develop.

Another aspect of the philosophy recognizes that miseducated adults can be motivated through intellectual excitement, knowledge of the educational system, and their history. Moreover, research on the brain's natural learning process shows that students are motivated to learn when they have the opportunity to learn the way their brain naturally learns (Smilkstein, 1998); intellectual excitement is manifested in classrooms using natural-learning curriculum and pedagogy. Even in classes not exclusively using natural-learning curriculum, intellectual excitement is manifested through lessons, slogans, posters, speakers and pep talks. Such excitement was seen in the Nairobi Method by Coombs (1973). He states: "I was taken by their interest, their enthusiasm for their work, and their refusal to be intimidated even if they knew their answers were incorrect. . . ." (p. 42). Learners were taught to cope with the system by developing upper-level literacy and survival skills. Also, they were taught to use their skills to help others who were less fortunate. Finally, learning about the history of African-Americans was a must in the Nairobi Method. In academic courses and in assemblies, learners were constantly exposed to the history of Africans’ and African-Americans’ achievements (Van Sertima, 1983). They were introduced to the fact that the first alphabet with vowels was invented by Ethiopians (Williams, 1974); that universities existed in Timbuktu while other groups
were living in “cultural deprivation”; and that the belief that African-American and other under-represented groups in the U.S. come from illiterate cultures is not true.

A third aspect of this method’s philosophy includes “going the extra mile” to convince learners that someone has a genuine concern for them. That concern includes (a) calling learners every day to remind them of their classes or whenever they miss a class; (b) picking up learners in order to counsel with them to and from their classes; (c) helping with all details of the learners’ lives; for example, doctor’s appointments, delivery of children, personal problems; (d) immersing the learners with pep talks (Hoover & Fabian, 1979); and (e) educating students about how their brain naturally learns and teaching accordingly.

Finally, the method’s philosophy promotes a value system oriented toward the masses of African Americans—the expelled, suspended, and alienated (“View from Nairobi,” 1969). Every student was encouraged to commit himself/herself to a lifelong goal of helping others. To get started, learners became engaged in such community service projects as tutoring in the public schools, helping organize community forums, and running errands for the elderly.

**Staff**

To ensure an all-staff endorsement of high expectations, the staff was given a series of workshops to instill in them a strong belief in students’ ability to learn. (Based on brain and natural-learning research, this belief is absolutely realistic. The brain is the learning organ: it knows how to learn, has an innate imperative to learn, and loves to learn, feels good when learning—endorphins, the pleasure chemicals, are produced in the brain during learning.) Learners were thus imbued by every staff person in classes and assemblies with these high expectations. Learners were informed that though they had been deprived of basic skills in the past, they will learn these skills now. They were encouraged to adopt Malcolm X’s vigilance in pursuing upper-level literacy (X & Haley, 1966). Moreover, if the staff shows students
how the brain learns and that they are natural learners (Smilkstein, 1989), the staff is giving
students facts that can further increase their confidence and motivation.

Techniques

*Audience and Language.* The techniques used in the Nairobi Method stressed audience
participation, a key element in the learning-centered constructive approach (Healy, 1994; Jensen,
1998; Perkins, 1999; Smilkstein, 1991). While most adult literacy programs value
individualization, most of the activities in the Nairobi Method were group oriented and geared to
an audience-participatory style. For example, learners read pattern-practice word lists with
partners, played prefix/suffix games, corrected dictation with partners, and paraphrase read.
Paraphrase reading was one of the major comprehension exercises. For practice, learners were
placed in small groups where they read a sentence of a paragraph orally and then paraphrased the
sentence in their own words. This exercise not only improved comprehension skills, but
vocabulary skills as well.

Because most of the learners in classes for miseducated adults were bidialectical (i.e.,
exposed to two dialects, usually standard English and another variety such as Ebonics—a
language variety spoken by African-and other Americans), a semiforeign language approach
(Hoover, Politzer, & Lewis, 1980) to reading was used. With this approach, a systematic
exposure to the most regular and frequent spelling patterns in English was provided. This
language approach has been effective in teaching African-American and other bidialectical
learners to read (Guthrie, Martuza, & Seifert, 1979; Hoover, 1978; McPhail, 1982, 1983; Weber,
1971).

Before learners were assigned compositions to write, they discussed how features of
their spoken language might influence their written language. To do that, learners studied
Ebonics; it includes features of West African language patterns (Dillard, 1973; Scales & Brown,
1981). Their study enabled them to understand why certain language patterns such as "he come"
might appear in their written work. Further, they learned that the reason why there is no third
person singular “s” on many of their verbs is that there are very few syllables ending in
consonants in most West African languages. Once learners understood their language pattern
was rule governed like any other language pattern, they wrote freely.

**Word Attack.** In the Nairobi Method, learners were provided a systematic, programmed,
linguistic approach to acquire word-attack skills. A linguistic sequence (140 English spelling
patterns), with selections written in the pattern provided, was used to avoid the failure inherent in
presenting a long list of phonic skills with no opportunity for practice in actual reading
situations. A linguistic sequence also gives adults many patterns beyond the usual consonants,
blends, short vowels, etc. Morphemic, accent, and syllabication patterns were presented for use
in analyzing multisyllabic words. Finally, spelling practice of pattern words was provided
through dictation by the teacher.

**Structured Vocabulary.** Learners were provided with a structured approach to word
attack, spelling, and vocabulary through the presentation of 200 Greek and Latin prefixes,
suffixes, and roots. They were given five to ten affixes or roots each day and quizzed on them
the following day. An evaluation of their knowledge of these word parts was handled through
tests. Afterwards the word parts were discussed in whole words with a given context.

A game, “Automatic Flash” (Hoover & Fabian, 1979), designed to assist learners’
memories was played daily. The affixes/roots thus provided several skill benefits. Among them
were (a) word attack—the affixes/roots were presented according to their spelling patterns, that
is, short vowels first, then long vowels, then “r’s”; learners thus improved their knowledge of
English orthography and spelling; (b) vocabulary—the affixes/roots also represented meaning
units so the learners’ vocabulary level increased; and (c) security—learners previously taught by
an ineffective reading method did not realize that English has a structure and set of rules. They
enjoyed discovering the structure and patterns of words.
Reading Comprehension. Most of the reading comprehension materials used in the method incorporated generative words and themes (Freire, 1970). An example of a generative word is cadillac. From cadillac, learners generated discussion of the term and generated such syllables as cad, ked, kid, cod, cud, dall, dell, dill, doll, dull, lack, leck, lick, dock for study. Other reading materials included themes that were culturally and politically relevant. Culturally relevant books, for example, included The Color Purple (Walker, 1982) and The Earth Did Not Devour Him (Rivera, 1987). Other formats and genres of interest to adults used were magazines, newspapers, and job-related materials. These materials related to learners’ personal struggles with illiteracy, the educational system, and sexism and racism.

Controlled Composition for Motivation. Learners were given a program of controlled composition. The daily composition assignments were designed to give miseducated learners a sense of security. As a first assignment, learners orally composed a paragraph on the topic “I Have a Number of Strengths.” Techniques from the Language Experience Approach (Van Allen, 1976) were incorporated as a guide for learners. They learned that, collectively, they had a number of strengths. They recited their strengths and put them into a form letter. The following example, taken from such an oral composition activity, demonstrates this process:

I have a number of strengths. I am a hard worker. I learn quickly and I am very dependable. As listed above, I am a hard worker. For example, I improved my vocabulary skills in a program I attended six hours a day. At the same time, I was raising my family as a single parent and working part-time as a babysitter. Another strength I have is that I learn quickly. Though I never tutored before, I picked up the skills to tutor my own children by attending Project Success. My third strength is that I am very dependable. In my last job, I never missed a day unless I was extremely ill—and that was only once.
This form letter was modified to fit each student's circumstances. Learners then used the letter (a) as a model of English grammar and organization; (b) as the basis for several questions usually asked on applications and interviews for jobs; and (c) for self-esteem purposes.

Learners memorized the letter so that they would always have a few perfect paragraphs for job interviews and as introductions or conclusions to papers they must write. The letter was also used as a vehicle for grammatical practice. One activity was for learners to rewrite the entire paragraph in the past tense, change the "I" to "we," thus changing from singular to plural, and other similar exercises.

Other topics for controlled composition were "Why I Am Unique," "Why My Culture Is Unique," "Why This Program Is Unusual."

*Composition Based on Generative Themes.* Not only reading but also composition methodologies were used in the Nairobi Method. The composition methodology (Hoover et al., 1986; Hoover & Politzer, 1981; Lewis, 1981) stressed the use of prose, poetry, and speeches from African-American authors. They also stressed such topics as Apartheid, Racism, Miseducation, Protest, and Ebonics. The method combined emphasis on a writing process with work on grammar in the context of African-American literature.

*Standard English Grammar.* A brain-based, natural-learning textbook for teaching standard English grammar, *Tools for Writing: Using the Natural Human Learning Process* (Smilkstein, 1998), though not part of the Nairobi Method has successfully helped miseducated African-American adults succeed at learning to write with the standard grammar expected—even required—in mainstream academic and professional environments. For example, the following pre- and posttests were written by a 45-year-old African-American woman enrolled in a 12-week community college basic grammar course that used this textbook. All errors in the samples have been retained.

Three prompts constituted the pretest: (1) What are your strengths as a student? (2) What are your problems as a student? (3) Write something about yourself.
1. more time to read.

2. My problems as a student are the same as above

3. I would like to learn how to concentrate to keep the mine from wandering while I am trying to read. About myself I am a very hard worker, but I love doing thing with my family. My family is very nice, daughter marry son going to college another son principal list.

The posttest prompt was a moral dilemma: A professional woman loses her job when her company goes out of business. She wants to return to college to retrain for another profession. Her husband tells her they cannot afford her not working and that she should immediately get any kind of job. You are a marriage counselor. What do you think about this situation?

I think that the couple should get counseling. If she isn’t happy in her present job, she will have little self-esteem. The marriage may not work under any circumstance. If she goes back to college, it may be hard now, but later in life it could be helpful to her.

The students in this challenging community college developmental English course seemed to increase not only their grammar but also the sophistication of their thinking as well as their spelling and vocabulary—even though spelling, vocabulary, and critical thinking were not directly addressed in the course. The reason for the students' astounding success is that their high level of intelligence had just not been accessible through their untutored writing and remained inaccessible until they had the opportunity to learn to write the way the brain naturally learns.

*Test-Wiseness.* Teaching learners to develop questions and find answers to the questions were the core components of a test-wiseness strategy taught to learners in the Nairobi Method. Specifically, learners read a passage, asked questions about the passage, and found answers to their questions. Secondly, for each question written about the passage, learners wrote statements that they believed answered their questions. Only one statement was considered as the most complete answer. Third, learners wrote questions based on such comprehension skills as main
ideas, details, and vocabulary in the passage. Finally, they reviewed their questions in the context of the passage (McPhail, 1981b).

**Conclusions**

We support the learning paradigm and the vision of the learning college. However, if African-American learners are to benefit from this important paradigm shift in the community college, the following recommendations for classroom practice deserve careful consideration:

- Each learning facilitator must explore his/her values, opinions, attitudes, and beliefs in terms of his/her cultural origin.
- Each learning facilitator must believe that all people can learn.
- Each learning facilitator must create an empowerment culture for learners in the classroom and beyond by doing the following:
  - Increasing his/her knowledge of the culture of their African-American learners.
  - Listening to the voices of their learners.
  - Weaving the realities of their learners’ lives into the curriculum.
  - Rethinking instructional delivery systems to include positive representations of the African-American cultural heritage in the curriculum.
  - Informing students about the brain’s natural learning process and about their being natural learners, and teaching in light of the brain's natural, constructive learning process.
- Each learning facilitator must revise, extend, and reformulate the theory of cultural mediation in instruction over time and with additional research.

Finally, we hope that the presentation of the theory of cultural mediation will generate the type of discussion and debate that will improve practice and help us to realize the vision of the learning-centered community college for all learners.
References


Table 1

Characteristics of African-American Cognitive Style

- Prefers to acquire knowledge through visual and kinesthetic/tactile mode and is especially responsive to sensations and perceptions as they seem to affect self.
- Construes the world in its totality, often ignoring specific parts of factors which might be relevant.
- Tends to use and rely on approximation rather than exactness.
- Has an excellent ability to attend to and interpret body language or facial expressions.
- Can see relationships and can synthesize or integrate ideas into a larger whole without necessarily understanding parts.
- Must have a context or scheme into which concepts can be incorporated to be understood and learned.
- Seems to prefer a multiplicity of stimuli to which to attend, which results in short, quick, attention focus and the gathering of only the bare essentials.
- Engages in creative, intuitive thinking using the trial-and-error approach; thus prefers spontaneity, novelty, and improvisation in interaction with ideas, concepts, people, events.
- Has own specific world view through which information is filtered, thereby often arriving at answers or behaviors which may vary from the socially accepted norm.
- Has excellent awareness of nonverbal, environmental factors, i.e., moods, climate, feelings, and ideas held by others.

Table 2

Characteristics of Euro-centric Cognitive Style

- Can process visual information analytically, i.e., has good visual discrimination skills, has good figure-ground discrimination, has good attention focus, has good visual memory and has good visual imagery skills.
- Can listen to verbal explanations and follow oral directions.
- Can give elaborate, elongated verbal explanations of ideas, events, or objects.
- Can engage in cause-and-effect thinking.
- Can create order/structure out of assignments/or information when presented in a disarray.
- Can handle and manipulate ideas/objects, events, without a significant context for reference.
- Can/seems to prefer a limited number of stimuli on which to focus.
- Has the traditional background experience through which to filter materials and explanations; therefore, the processor arrives at the expected and socially accepted answers.
- Has good problem solving skills, i.e., can observe and use all relevant facts; is not confused by irrelevant facts; is reflective and systematic in the examination of possible solutions.

Table 3
Comparison of African and European Philosophical Assumptions

<table>
<thead>
<tr>
<th></th>
<th>AFRICAN</th>
<th>EUROPEAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orientation</td>
<td>Nature-centric</td>
<td>Eurocentric</td>
</tr>
<tr>
<td>Norm(s)</td>
<td>Human Nature</td>
<td>Middle-class, Male Caucasian</td>
</tr>
<tr>
<td>Conception of “Self”</td>
<td>Transpersonal Self</td>
<td>Individual Self</td>
</tr>
<tr>
<td>Human Goal</td>
<td>Self-perpetuation</td>
<td>Gratification</td>
</tr>
<tr>
<td>Conception of “Time”</td>
<td>Cyclical, Phenomenal</td>
<td>Linear, Futuristic</td>
</tr>
<tr>
<td>Ontology</td>
<td>1. Spiritual Essence</td>
<td>1. Physical/Material Essence</td>
</tr>
<tr>
<td></td>
<td>2. Collectivism/ “We-ness”</td>
<td>2. Individualism/ “I-ness”</td>
</tr>
<tr>
<td></td>
<td>3. Interdependence</td>
<td>3. Independence</td>
</tr>
<tr>
<td></td>
<td>5. Oneness of Being/One with Nature</td>
<td>5. Dichotomy of Being/Control over Nature</td>
</tr>
<tr>
<td>Epistemology (Knowledge of “What is”)</td>
<td>1. Affect/Symbolic</td>
<td>1. Object/Measure</td>
</tr>
<tr>
<td></td>
<td>2. Immersion in Experiences</td>
<td>2. Observation of Experiences</td>
</tr>
<tr>
<td></td>
<td>3. Fluid and Flexible</td>
<td>3. Rigid and Fixed</td>
</tr>
<tr>
<td></td>
<td>4. Dyunital Logic</td>
<td>4. Either/or Logic</td>
</tr>
<tr>
<td></td>
<td>5. Complementarity of Differences</td>
<td>5. Duality of Opposites</td>
</tr>
<tr>
<td></td>
<td>2. Preservation of Life</td>
<td>2. Control of Life</td>
</tr>
<tr>
<td></td>
<td>3. Affiliation (human-to-human)</td>
<td>3. Ownership (man-to-object)</td>
</tr>
<tr>
<td></td>
<td>5. Self-knowledge</td>
<td>5. Acquiring Information</td>
</tr>
</tbody>
</table>


### Table 4

**Comparing Educational Paradigms**

<table>
<thead>
<tr>
<th>The Instruction Paradigm</th>
<th>The Learning Paradigm</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Learning Theory</strong></td>
<td></td>
</tr>
<tr>
<td>• Knowledge exists as a separate entity.</td>
<td>Knowledge exists in each person’s mind and is shaped by individual experience.</td>
</tr>
<tr>
<td>• Knowledge comes in “chunks” and “bits” that can be acquired through the senses.</td>
<td>Knowledge is constructed, created, and “gotten.”</td>
</tr>
<tr>
<td>• Learning is cumulative and linear.</td>
<td>Learning is a nesting and interacting of frameworks (neural networks)</td>
</tr>
<tr>
<td>• Fits the “storehouse of knowledge” metaphor</td>
<td>Fits “learning how to ride a bicycle” metaphor.</td>
</tr>
<tr>
<td>• Learning is teacher centered and controlled.</td>
<td>Learning is student centered and Controlled.</td>
</tr>
<tr>
<td>• “Live” teacher, “live” students required.</td>
<td>“Active” learner required, but not “live” teacher.</td>
</tr>
<tr>
<td>• The classroom and learning are competitive and individualistic.</td>
<td>Learning environments and learning are cooperative, collaborative, and Supportive.</td>
</tr>
<tr>
<td>• Talent and ability are rare.</td>
<td>Talent and ability are abundant.</td>
</tr>
</tbody>
</table>

Table 5

Learning Paradigm Theory with its and Cognitive Style/Philosophical Assumptions: A Matrix

(note: "Learning Theory" traditionally refers to hateful Behaviorism!)

<table>
<thead>
<tr>
<th>Learning Paradigm Theory</th>
<th>Cognitive Style/Philosophical Assumptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Knowledge exists in each person’s mind</td>
<td>• Has own specific world view through which information is filtered, thereby often arriving at answers or behaviors which may vary from the socially accepted norm</td>
</tr>
<tr>
<td>and is shaped by individual experience.</td>
<td>• Immersion in experiences</td>
</tr>
<tr>
<td></td>
<td>• Self-knowledge</td>
</tr>
<tr>
<td>• Knowledge is constructed, created, and “gotten.”</td>
<td>• Engages in creative, intuitive thinking using the trial-and-error approach; thus prefers spontaneity, novelty, and improvisation in interaction with ideas, concepts, people, events.</td>
</tr>
<tr>
<td>• Integrates ideas into a larger whole without necessarily understanding parts</td>
<td>• Fluid and flexible</td>
</tr>
<tr>
<td></td>
<td>• Diunital logic</td>
</tr>
<tr>
<td></td>
<td>• Complementarity of differences</td>
</tr>
<tr>
<td></td>
<td>• Construes the world in its totality, often ignoring specific parts of factors which might be relevant</td>
</tr>
<tr>
<td></td>
<td>• Can see relationships and can synthesize</td>
</tr>
</tbody>
</table>
### Table 5 - Con’t.

**Learning Paradigm Theory and with its Cognitive Style/Philosophical/Assumptions: A Matrix**

<table>
<thead>
<tr>
<th>Learning Theory</th>
<th>Cognitive Style/Philosophical Assumptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Fits learning how to ride a bicycle metaphor</td>
<td>• Seems to prefer a multiplicity of stimuli to which to attend, which results in short, quick, attention focus and the gathering of only the bare essentials</td>
</tr>
<tr>
<td>• Learning environments and learning are cooperative, collaborative, and supportive.</td>
<td>• Must have a context or scheme into which concepts can be incorporated to be understood and learned</td>
</tr>
<tr>
<td>• Talent and ability are abundant</td>
<td>• Cyclical, phenomenal</td>
</tr>
<tr>
<td></td>
<td>• Collectiveism/ “we-ness”</td>
</tr>
<tr>
<td></td>
<td>• Interdependence</td>
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<td></td>
<td>• Survival of the Community</td>
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<tr>
<td></td>
<td>• Affect/Symbolic</td>
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<td>• Cooperation/Harmony</td>
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<td>• Affiliation (human-to-human)</td>
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<tr>
<td></td>
<td>• Collective Responsibility</td>
</tr>
<tr>
<td></td>
<td>• Transpersonal self</td>
</tr>
<tr>
<td></td>
<td>• Has excellent awareness of nonverbal, environmental factors, i.e., moods, climate, feelings, and ideas held by others</td>
</tr>
<tr>
<td></td>
<td>• Survival of the Community</td>
</tr>
<tr>
<td></td>
<td>• Collectivism/ “we-ness”</td>
</tr>
</tbody>
</table>
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