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## **The positive impact of virtual environments across cultures: Understanding the experience of the African American college students' use of e-tools in the learning environment**

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**Key words:** *E-tools, African American, Culture, Learning Environments*

### **Abstract:**

*The technology of change is rapid, it is all encompassing, and it is inescapable. The question emerges in this swift acquisition of new technology – what is lost and what is gained? Traits such as social introversion and defensiveness can inhibit traditional styles of communication. It is believed that electronic communication tools can facilitate communication with certain personality traits and cultural groups and remove some communication barriers across cultures. For this exploratory study a select group of African American university students were given a personality assessment and asked about their experiences with electronic communication tools such as instant message, email, chat, and text messaging.*

The rapid evolution of the Internet and e-tools (instant message, email, chat, and text messaging) has provided the means for audiences to connect in a variety of interactive ways (J. Wei, 2007). The newness and swift adoption of these multimedia platforms presents a challenge on how to harness the potential in creating learning environments (J. Wei, 2007). Collaborative learning is considered an effective pedagogy for fostering “skills of analysis, communication and higher order thinking” (McLoughlin & Luca, 2002 p. 571). Internet based learning is a perfect environment for collaborative learning and has been shown to be as effective as traditional classroom collaborative learning (Geer, 2000).

Adolescents worldwide are using the Internet as an important communication tool. Greenfield and Zheng (2006) claim Ghana teenagers use the Internet to seek out health information that they otherwise would not be able to access. The cell phone and other new technologies (text messaging, instant messaging, and chat) have had a “profound effect on the way people communicate and organize their lives” (Smith & Williams, 2004, p. 292) crossing barriers not previously permeable. Kadirire (2007) found learners were enthusiastic about learning with e-tools. After experiencing mobile learning 62 percent wanted to continue learning with mobile learning tools (Kadirire, 2007).

The Internet offers an exciting format with vast pedagogical potential especially for active engagement. Greenfield and Yan (2006) claim the Internet is more exciting and demanding “than earlier media because it is a complex virtual, social and physical world that children and adolescents participate in and co-construct, rather than something that is merely watched (TV) or merely used (PC)” (p. 393). Other e-tools such as text messaging, instant messaging, and chat also provide the element of active engagement. Curtis and Lawson (2001) suggest that “student chats, threaded discussions, role playing, investigation of case studies, and working

together in project groups” (p. 23) are all excellent collaboration tools that can be supported in an online environment. The online environment allows for the development of visual pedagogy and collaborative learning promoting the widely accepted premise that “students learn best by interacting with others, rather than working in isolation” (Geer, 2000 p. 2426).

Previous research has shown that distance learning can be as effective as face-to-face learning (Dean, Stah, Swlwester, & Pear, 2001; Russell, 2000). There are positive benefits to learning at a distance in a virtual environment that potentially make it an even more effective and engaging setting for some groups. Students that might not engage in a typical classroom discussion will participate and often excel in a virtual environment (Curtis and Lawson, 2001). Blumenfeld, Marx, Soloway, and Krajcik (1996) found that students who do not typically participate in “classroom discussion participate in these computer -based, classroom wide conversations” (p. 39).

Certain boundaries become invisible as real life constraints no longer draw as much attention. For example, the usual limitations of an audio environment on a deaf person diminish in a text based setting. Convenience in access allows engagement in the educational experience that might otherwise be impossible due to distance or time constraints. Boswell also suggests that “it is easier to encourage critical thinking online than in face-to-face courses because the online environment forces students to participate, whereas more outgoing students tend to dominate face-to-face discussions” (Boswell, 2003, p. 8).

Kadirire (2007) emphasizes that a key element for a successful virtual learning environment is the sense of community. E-tools can help promote community in a learning environment by reducing the formality of the learning experience, and helping engage reluctant learners by raising their self-confidence (Kadirire, 2007, abstract). Instant messaging and text messaging are pervasive in today’s society and are excellent tools for all sorts of virtual classroom cohesiveness such as peer discussions and file sharing (Kadirire, 2007).

Language, culture, and personality play a significant role in communication behaviors. Understanding students’ internal motivations such as their personalities and cultural background factor into their engagement with the learning environment. Halpern et al. (2007) suggest that “learning is deeper and students are more motivated when the materials and skills are anchored in real world problems that matter to the learner” (p. 2). Learning style as it is linked with students’ personality is another factor of engagement. For example, if the student’s likes lectures format instruction they are more likely to learn best through lectures conversely if they like experiential learning they are more likely to absorb information through a direct experience as apposed to lecture (Hofman, 2006).

Social introversion and defensiveness can inhibit traditional styles of interaction and therefore intensify the subjective experience of marginalization in African Americans. Internet use can augment traditional styles of interaction providing a bridge to African Americans as well as individuals with a tendency to isolate. Understanding cultural nuances of personality allows the communication to emerge that minimizes the effects of marginalization. Further the non face-to-face environment such as that found on the Internet is more likely to be attractive to individuals characterized by low extraversion and emotional stability (Marcus, Machilek, & Schutz, 2006).

Abel et al. (2007) cautions “access is not equal or easy to all educational resources. In some respects it is a societal issue to address this challenge” (p. 11). Society impacts the entrée to the Internet and e-tools. Access can be constraint by economical barriers as well as cultural

belief. Luskin (as cited in Abel et al., 2007) claims new technology and media is capable of overcoming these challenges saying, "Media is social change. It is transformational in that it changes the method by which learning takes place" (p. 30). Harvey (2004) proposes there is an African American cultural tradition that discourages Internet, e-tool, and other digital media access. Harvey (2004) says it is the digital component of the Internet "that may make it less accessible to African Americans who prefer analogic communications as a result of the cultural tradition of interdependence" (p. 24).

African Americans are confronted with communication barriers through the Digital Divide, "inequalities between the technological haves and have-nots" (L. Wei, 2007, p. 3). One African-American woman in a Detroit explained the impact of the Digital Divide this way:

We're in an Internet environment, but not everyone has access to it, even though it's everywhere. Everyone does not have the Internet services at home. If the library closes at 6:00 p.m. and you get off school at 4:00 p.m., you may have [an] after-school activity until 6:00, 7:00. When do you have the opportunity to. (Immerwahr & Johnson, 2007, p. 20)

Wilson, Wallin, and Reiser (2003) found that after "controlling for socioeconomic variables, the effects of rural residence and gender disappeared but African Americans were still less likely to have home computers or Internet access" (abstract). Further exploration of cultural issues within the African American community will hopefully reduce the potential for additional marginalization. Harvey (2004), in her research of African American college student's use of the Internet suggests,

For many African Americans, this lack of place may be very disconcerting and may add to their reluctance to go online because they fear becoming more out of place in a society that already limits their place within society and works against their cultural emphasis on emotional vitality and time perception. (p. 25)

Conversely Harvey (2004) indicates that while African American students might be reluctant to go online because of their interest in the African American community and desire to eschew all things Eurocentric including the Internet, they also might be drawn to

the Internet as an 'alternative' educational environment that may meet their needs in ways that more familiar environments do not. Thus they may be more aware of their own culture and the majority culture and are able to work effectively within both cultures including usage of technology that may be associated with European American culture. (Harvey, 2004, p. 68)

For this particular study African American students were given the MMPI-2 (a personality assessment tool), a demographic survey, and a questionnaire examining their use of electronic communication tools. Both MMPI-2 Clinical scales and the Restructured Content scales were used in the examination of descriptive statistics. Participants' preferences for e-tool choice were correlated with the Clinical scales and Restructured Content scales.

The African American college students' preferred communication media choice was not surprisingly Instant Messaging (IM). Clinical scales Ma (m=67.00, sd 16.29) demonstrated an elevation over 65. Ma or the Hypomania Scale 9 of the clinical scales is only a slight elevation representing energy (sometimes excessive), extroversion, gregariousness, impulsivity and lack of direction. This could be accounted for by the fact that the participants

are college students. There is also a possibility that the MMPI-2 norms are slightly skewed for an African American population. The Validity scale Fb showed a mean of 65.94 (sd 19.65). The Sc, the scale for aberrant experiences or antisocial behavior, had a mean 63.94 (sd 9.91) and was not elevated.

Pearson Correlation analyses of the Clinical and Restructured Content scales and the number hours of 10 media choices were performed. Four of the Clinical and Restructured Content scales correlated with 10 media choices. Listserv use was correlated with Hs, Hypochondriasis; cell phone use was associated with Ma, hypomanic activation; email use was linked with RC3, cynicism; and text messaging was correlated with RC4, antisocial behavior.

Narrative data from the study helped to open up the African American student experience with e-tools. When asked about the impact of the Internet on their lives student responded with comments of being able to stay in touch with friends spanning distance and time, the usefulness of the medium, and how it makes “other things kind of obsolete”. Some participants believed an online friendship could be as meaningful as an in-person friendship especially if there had been some initial face-to-face contact. Others found online friendships remote “because they don’t personally know you” and “not as meaningful because in person you can see facial expression and the relationship is more genuine”. Finally, all seemed to find e-tools convenient and liked the social link to quick and easy contact with friends.

This was a pilot study examining African Americans and their communication media choices in a rapidly changing technology environment. The findings indicate there are some correlations between personality characteristics and media use. It appears that 18-20 year old college students are using primarily IM, social networking, email and chat rooms. They feel comfortable using the e-tools to connect socially with friends. Individuals who displayed characteristics of hypomania had higher usage hours for the cell phone and in addition, individuals displaying hypochondriacal characteristics were associated listserv use. Understanding these personality traits and others can assist in communication and initiate spanning cultural divides.

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