A Composite Theoretical Model Showing Potential Hidden Costs of Online Distance Education at Historically Black Colleges and Universities: With Implications for Building Cost-Resistant Courses and Programs

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Abstract

Growing numbers of historically Black colleges and universities (HBCUs) are entering the arena of online distance education. Some are seeking to grow large-scale programs that can compete for market share with historically White institutions and for-profit schools. This theoretical essay develops a composite model to assist HBCU administrators in their planning and implementation of e-learning ventures. The model addresses two existential questions: What potential costs to their core distinctiveness might America's HBCUs face if they pursue online distance education initiatives, especially if their ultimate goal is to imitate the large-scale digital presence of competing non-HBCUs? How might these potential costs impact the Black American students that HBCUs typically recruit and enroll? This essay concludes with implications for how decision makers can build cost-resistant online distance education courses and programs. It is hoped that this original conceptual work will contribute to innovations of research and practice in this new field.

Officially recognized under the Higher Education Act of 1965, a historically Black college or university (HBCU) is an institution formed prior to 1964, whose principal mission was, and is, the education of Black Americans. Dating to the first HBCU in 1837 (Cheney University, Pennsylvania), these schools have earned a rich legacy as disruptors of the "American caste system" (Gasman, 2011, p. 839), and they are responsible for the modern Black middle class (Drewry & Doermann, 2001). They are reputed for offering a hands-on, value-added education in a traditional campus-based setting for a primarily Black population (Arroyo & Gasman, 2013; Kim, 2011; Hughes, 2012; E. Walker, 2011). On this basis, one might say these schools are "distinctive" compared to the average historically White institution (HWI) or for-profit school. But what happens when the common physical location is replaced by distributed digital separation through online courses or programs?

Up until recently, the question of e-learning was almost irrelevant for most of the nation's 105 HBCUs. The prevailing assumption was that an online environment designed for distance learning was incompatible with the unique HBCU version of the education good, which required a hands-on, tangible approach to educating and mentoring their largely Black American constituency. Prominent HBCUs such as Howard University, located in Washington, D.C., openly vowed to remain campus-based and classroom-focused (General Accounting Office, 2003), despite the apparently changing times.

Today, however, skeptics are becoming believers at many HBCUs (Kelderman, 2010). Although most HBCU courses and programs remain campus-based, there is a groundswell movement throughout the HBCU community toward distance-based online education. By one count, 24 HBCUs, including Howard University, have either at least one program that is 80% to 100% online, or they offer hybrid courses (Beasley, 2012). This number is sure to grow, particularly as HBCU decision makers are being told that entrance into the virtual arena is imperative for their survival, that it represents the extension of opportunity to students, and that they are "obdurate" if they disagree (Flowers, White, Raynor, & Bhattacharyya, 2012, p. 2; see also Smith, 2011).

For those HBCUs that desire an online presence but lack the infrastructure, a number of more or less successful organizations have arisen to provide support. At the time of this writing, Education Online Services Corporation is a central player in this arena (www.educationonlineservices.com), with several HBCUs identified as partners. Other organizations of this nature have failed to gain traction, such as a 2001 effort of six HBCUs to form "V-HBCU," and Tom Joyner's more recent effort called "HBCUsonline.com." Joyner's explicit goal was to create a delivery mechanism that assisted HBCUs with their e-learning ventures, doing so in a way that preserved HBCU distinctiveness. Despite its initial fanfare, the organization appears to have faltered, signaling that even seemingly well-intentioned and well-funded conglomerates might meet unexpected ends.

Clearly, all of the aforementioned developments demonstrate that e-learning at HBCUs is in a state of flux, and thus carries questions. One set of questions deals with potential existential benefits and costs to the institutions and students. For example, it is certain that such programs will separate some students from physical HBCU campuses, and evidence suggests this distance might require a more independent or autonomous learning style than many Black American students prefer (Gallien & Peterson, 2004; Rovai, Ponton, & Baker, 2008). However, less certain is whether—or how—such separation will materially disrupt so-called HBCU distinctiveness, and if/how HBCUs' traditional population might suffer an actual disservice if so. This subject is simply too new to generate the type of broad, longitudinal data that could provide a definitive conclusion in terms of institutional and student impacts.

In the absence of such data—which only long-term studies can provide—there is a special interim need for carefully constructed theoretical models of a predictive nature. A good model will deliver at least three benefits to HBCU administrators, as well as to the researchers and practitioners who work alongside them: it will (a) assist in foreshadowing potential problem areas, or costs, online expansion could cause; (b) facilitate institutional planning to mitigate the potential costs before they occur; and (c) suggest ways to design HBCU-specific, cost-resistant distance education that captures and transmits elements of their distinctiveness digitally, insofar as it is possible. At the present time, no models of this sort exist in the HBCU literature. Thus, the purpose of this essay is to build the first theoretical model that speaks specifically to these issues.

The model introduced here is animated by a pair of existential research questions: What potential costs to their core distinctiveness might America's HBCUs face if they pursue online distance education initiatives, especially if their ultimate goal is to imitate the large-scale digital presence of competing non-HBCUs? How might these potential costs impact the Black American students that HBCUs typically recruit and enroll? These questions have their philosophical basis in a broader query that education theorists Loomis and Rodriguez (2009a) posed: "Can the complexity of the education good—the development of the individual human being—be preserved in a scaled-up environment?" (p. 480).
An overview of this essay is as follows. First, two critical caveats are offered, and the theory building method is explained. Next, the composite theoretical model is constructed. Finally, the essay concludes with implications and applications for HBCU research and practice directed primarily toward decision makers who oversee HBCUs that are considering online expansion or are already involved in that enterprise.

Two Critical Caveats

E-learning at HBCUs is hotly contested, and the model introduced later in this essay promises to charge the debate further. Therefore, it is necessary to offer two caveats in the hopes of creating the conditions for constructive, rather than destructive, dialogue.

First, it is important to be clear that the composite model advanced here captures just one perspective. This model's perspective is potential rather than necessary; it is subjective, not absolute. It is best viewed as a thought experiment which, although built on logical principles and existing knowledge, requires scrutiny and skepticism, even while being taken seriously. It raises critical questions in the abstract dimension so researchers and practitioners might gain a different perspective that will inform their own areas of work, but readers should avoid viewing the model as a fatalistic prediction. Any number of environmental conditions or direct interventions might moderate its conclusions at any point. Moreover, while the ideas presented here reject blind assent to online distance education as a panacea, on the grounds that any such claim is "unduly technicist, technologically deterministic, and unrealistically positive" (Haythornthwaite & Andrews 2011, p. 46), to interpret this essay as a cynical Trojan horse intended to undermine online initiatives at HBCUs would go against the spirit in which they are written. The goal is to promote wise planning; it is not to sound the death knell of e-learning.

In full disclosure, I support HBCUs and their advancement. I am a tenure-track assistant professor at a mid-sized public HBCU, with several years of experience designing courses and teaching in private and public HBCU contexts. I have published on the subject of the effective online teaching of Black students and other diverse populations (Arroyo, 2009, 2010, 2013a; Cramer, Arroyo, & Ford, 2013), and I live the experience of being an online HBCU professor daily. Any critique I offer is as a member of the HBCU family in the spirit of Socrates, whose call for the examined life ought to extend beyond individual persons to include institutions. Nothing we do is worth doing if it cannot be subjected to—and withstand—rigorous examination.

Second, although non-HBCUs are beyond the concern of this essay, it is also important to emphasize that the composite model likely has far-reaching implications outside the universe of HBCUs. Concerns about the unanticipated costs of distance education have swirled for years over all postsecondary schools. A United States Federal government report (Lewis, Snow, Farris, Levin, & Greene, 1999) over a decade ago cautioned higher education about the possibility of uncalculated costs related to "developing and implementing distance education programs" and the "pressures on existing organizational structures and arrangements" (p. vii). Making a different case from the humanities, Ess (2003) argued that strictly online modalities are incapable of the embodiment required for cultivating Socratic virtue (aretē) and Confucius' exemplary person (junzi), each of which is a chief end of liberal arts education. Consequently, my intent is not to single HBCUs out as the only schools that could face unexpectedly high costs for e-learning ventures. Nevertheless, HBCUs are my concern, and they do stand to lose a great deal if these predictions are true and ignored. The fact that other schools could be harmed similarly will spare them no damage, and solutions tailored to the HBCU context—their students and legacies—are needed more than those developed generically.

Method

Although theories abound throughout the educational literature, most have been designed with traditional sites of learning in mind, and therefore might lack perfect application to online education. Since "e-learning is more than just an environment or site for conventionally conceived learning" (Haythornthwaite & Andrews, 2011, p. 45), it is desirable that theorists would develop specially designed models for e-learning. Theory building is a complex and iterative process (Jaccard & Jacoby, 2010; Shoemaker, Tankard, & Lasorsa, 2004), with a variety of ways to arrive at frameworks for use in practice and research. The method utilized in the present essay is patterned after Rovai's (2003) theory building project, which created a composite model of online student persistence by drawing from Tinto (1975) and Bean and Metzner (1985), while also adding his own insights and ideas from recent research. The present essay creates its composite model of the potential hidden costs of online distance education at HBCUs by combining insights from three existing base models: the HBCU-Based Approach for Black College Student Success (Arroyo & Gasman, 2013), the cost of expanding institutions (Loomis & Rodriguez, 2009a, 2009b; Rodriguez, Loomis, & Weeres, 2007), and the theory of transactional distance (Moore, 1997). The three base models are discussed individually first, and then they are integrated into the composite.

Building the Composite Model

Base Model One

The first base model for consideration is known as the HBCU-Based Educational Approach for Black College Student Success (Arroyo & Gasman, 2013). Figure 1 presents the model.
Without naively assuming categorical within-group homogeneity among HBCUs, Figure 1 rests upon decades of empirical research stipulating to the broad presence of the framework’s concepts across the HBCU community. Figure 1 appreciates the unique "organizational saga" (B. Clark 2009, p. viii) that is woven into the HBCU history and experience (Gallien & Hikes, 2005). As conduits for a people on a literal and figurative journey toward liberation (Allen & Jewell, 2002), these schools have carried enormous responsibility and delivered immense benefits to Black American students in particular (Gasman & Tudico, 2008). Students are said to gain social capital (Brown & Davis, 2001; Gasman & Jennings, 2006) and to experience a special "ecological psychology" (Brown & Davis, 2001, p. 43) that is part and parcel of an "informal curriculum" (Thompson, 2008, p. 30) embedded throughout the model.

Moving from left to right in Figure 1, the relative accessibility of HBCUs is the first key marker of their distinctiveness. While these schools do attract academically talented students with no substantial barriers to success, they also tend to be more open than mainstream HWIs to underprepared students with possibly substantial barriers to success. Many HBCU applicants and students contend with a host of extracurricular responsibilities average undergraduates do not, such as working full time and caring for dependents (Ashley, Gasman, Mason, Sias, & Wright, 2009). While some observers view relative accessibility as a demerit (Riley, 2010), others view it positively and call HBCUs "best bargains" (K. Clark, 2009).

Once admitted, HBCU students experience the jewel in the crown of these schools: a supportive environment (Fleming, 1984; Fries-Britt & Turner, 2002; Outcalt & Skewes-Cox, 2002). The environment is borne of a special collectivistic ethos that marks the African American community (Boykin, 1983; Eskano, 2013; Palmer & Gasman, 2008; Roebuck & Murty, 1993; Watkins, 2005), and contributes to, or moderates, three internal processes and outcomes: achievement, formation of identity, and cultivation of values. Achievement comes in such forms as grades (Kim, 2011), career attainment and earnings (Mykerezi & Mills, 2008; The United Negro College Fund, 2009; Wenglinsky, 1996), and other measures of cognition (Flowers, 2002; Flowers & Pascarella, 1999). Identity formation takes place as the development of pride—rather than shame—in being Black (Fries-Britt & Turner, 2002) and the sense of being an intellectual (Thompson, 2008) and a leader (Jean-Marie, 2006, 2008). Among the values experienced include a sense of civic mission and activism with the goal of giving back to the community and uplifting the race (Lott, 2005; Perna, 2001; Ricard & Brown, 2008). Figure 1 also theorizes that an iterative relationship exists between these components. For example, improvements in intellectual identity correspond to heightened achievement, and vice versa, and exposure to critical values of social justice correspond to the development of leadership qualities, and vice versa. Dedicated staff, faculty, and leaders throughout HBCUs are responsible for making these connections work, not temporary programs or specially funded initiatives.

Most significantly for the purposes of the present essay, Figure 1 assumes a tangible, dynamic, high-context environment that many skeptics of online education have doubted a scaled-up, virtual distance format could deliver. Consequently, for theoretical purposes this first base model may be categorized as "what HBCUs have to lose."

Base Model Two

The next base model is the cost of expanding institutions theory, which is conceptualized from the philosophy of Loomis and Rodriguez (2009a, 2009b) and Rodriguez, Loomis, and Weeres (2007). Although abstract and philosophical in nature, their work has timely pragmatic implications for many modern-day higher educational issues—including the subject of this essay. Figure 2 models their overarching thought.
Figure 2 states that educational institutions operate best (a) when they emphasize the cultivation of the human person through exchanges of particular, qualitative information, and (b) when they maximize human freedom and individuality (Rodriguez et al., 2007). Each is discussed briefly below, as well as what happens when the ingredient of “scale” is introduced.

**Information.** Information is an educational institution's "lifeblood" (Loomis & Rodriguez, 2009b, p. 47). It exists on a continuum between two poles: particular information and universal information. An ideal educational institution will promote the particular over the universal because the particular is better at capturing complexity.

…refers to data that are mostly qualitative in nature; it is inherently variable, irregular, uncertain, and hard to measure… (pertaining) mainly to the nonlinear types of behavior… (finding) expression in personal distinctions, independence, emotions, improvisation, value judgments, moral principles, acts of will…. (Rodriguez et al., 2007, p. 3)

This stands in contrast to universal information, which is constant, linear, and easily measurable (Rodriguez et al., 2007). The universal operates through standardization, which is a function of stability, control, order, and rule enforcement. These are the opposite (i.e., enemies?) of the highest education good, but ironically they are also the natural result of a push toward scale through expansion. Therefore, when an institution has a vision to expand its scope, it must be prepared to move from the particular to the universal in its primary information exchanges so it can process the increased inputs and outputs. There is little to no room for improvisation. Everyone and everything must fall into line.

When an educational institution that should be information-rich enters a state of information depletion (where everything is standardized), it becomes an institution more distant from social reality (Loomis & Rodriguez, 2009b). It is unable to contextualize and nuance content. The richness of knowledge is diminished substantially, if not lost completely.

**Human freedom and individuality.** Along with particular information, human freedom and individuality is a vital construct in this theory of institutions. Critically—and absolutely—this theory contends that human freedom is an inalienable, innate good. Consider the following passage:

In this attempt we affirm the certainty, and take it to be self-evident, that liberty is good for us and that we ought to desire it; that it is an ultimate end and value pursued for its own sake; that it is not a contingent concept, but an unqualified right; that it needs no justification, but is itself the nonviolable source of justification for human relations. (Rodriguez et al., 2007, pp. 142-143)

The promotion and protection of human freedom, or liberty, connects the ideal institution full circle to its proper ontological orientation as a socially constructed agent. Negative and positive freedoms alike deserve this promotion and protection. Negative freedom is "freedom from outside interference, from coercion, from man-made obstacles that prevent human action;" and positive freedom is "freedom to shape, to make the best of one's self, to achieve a definite condition" (Rodriguez et al., 2007, p. 5). Where the institution develops in a push toward scale, it naturally tends to impede these freedoms because people are forced increasingly into lockstep, thus stunting human flourishing. The effect is "to degrade the true essence of man and the idea of persons as self-directed beings" (Rodriguez et al., 2007, p. 143). In short, people devolve into products, and the education good of enhancing individual lives is stifled or terminated because the scale-oriented institution no longer can process variation. It is a thought-provoking specter:

Our basic premise is this: institutions under scale not only alter markets, they can diminish or even eliminate them… The question is whether economies of scale and standardization of curriculum and teaching that scale makes possible run the risk of diminishing (trading off) market variation and embedded freedoms—local strengths and distinctives. (Loomis & Rodriguez, 2009a, p. 475)

To reiterate an earlier point, although this theory is broadly applicable, its implications for online distance education should be obvious, especially if an institution seeks large-scale market share. In the context of HBCUs, whereas Figure 1 depicted "what HBCUs stand to lose," Figure 2 informs us "how HBCUs stand to lose it."

**Base Model Three**

Moore's (1997) theory of transactional distance is the final base model of interest. His early work on distance education theory (see Moore, 1972) predates modern online modalities—e.g., email, Blackboard©, web 2.0 tools—making the theory of transactional distance a seminal and classic
work in the field. Despite many excellent and more recent theoretical contributions (see Haythornthwaite & Andrews, 2011), Moore's ideas remain useful because the principles speak to enduring pedagogical realities. Figure 3 represents a conceptualization of selected components from the theory of transactional distance.

![Figure 3. Theory of Transactional Distance](image)

It is intuitive that physical distance between a learner and school or teacher can be detrimental for some. However, Figure 3 also posits another type of non-physical distance called transactional distance, which can impair learning to an even greater degree. Transactional distance refers to a psychological and communication separation between teacher and learners (Moore, 1997). The degree of transactional distance differs between individuals and environments, making the concept relative and variable rather than absolute and fixed. Two online learners might be equidistant physically from campus (for example, 2000 miles away), but one could experience extreme transactional distance while the other experiences comparatively less.

Three variables are especially significant for determining transactional distance: dialogue, program structure, and learner autonomy, each of which is depicted in Figure 3 to show its impact on the degree to which separation is present and which conditions are necessary to traverse the distance.

- **Learner autonomy** is a characteristic of the student population that is pivotal to student success in a given class or format.
- **Dialogue** is a function of information exchange between teacher and learner.
- **Structure** has to do with the extent to which flexibility and variation has been built into the course design.

Less autonomous learners—i.e., those who are more dependent on external guidance—prefer higher dialogue and lower structure as their ideal learning conditions. These conditions allow for closeness to develop in an environment where the learner is not left to decipher the material on his or her own. This learning approach tends to be preferred by many Black Americans and others whose (sub)culture favors interdependence and communalism (Gallien & Peterson, 2004; Rovai et al., 2008).

In contrast, learners with greater autonomy—i.e., those who are relatively "emotionally independent of an instructor" (Moore, 1997, p. 31)—are able to succeed with less interaction. That is, dialogue can decrease and one-way structural elements can increase without negatively affecting the learner. This does not make them better than their peers who favor lesser autonomy; it simply represents a different approach. Whites and Asians tend to fall into this category, as their psycho-social preference tends toward individuality and competition (Rovai et al., 2008).

According to Moore (1997), institutions must design courses appropriate to their primary learner population. In the case of HBCUs, if Figure 1 indicates "what HBCUs stand to lose," and Figure 2 "how they stand to lose it," Figure 3 offers a vital signpost for helping HBCUs bridge the gap.

**Composite Model**

Based upon the three base models already presented, a composite model of potential hidden costs of virtual HBCUs emerges. Figure 4 presents this model.
The components of the three preceding models are clearly evident in this composite product. The presence of the value-added HBCU educational approach (Arroyo & Gasman, 2013) coincides with a state of minimal transactional distance (Moore, 1997). Conditions are ideal at this stage for rich, particular information exchanges and the promotion and exercise of human freedom and individuality (Rodriguez et al., 2007). In HBCUs, some learners (not all of them!) exhibit modest autonomy due to their demographics, but this is offset by a high instructor presence so all students can flourish if they choose.

The model goes on to predict one potential scenario where an HBCU disrupts its homeostasis by undertaking a push toward online distance education initiatives, and particularly those that are growth-oriented (i.e., scale-driven). The push places pressure on the distinctive HBCU educational approach because of the natural trajectory toward growth, standardization, and uniformity that these programs entail. Byproducts include unanticipated costs to information and human freedom, as standardization requires increased reliance on the universal and abstract over the contextual and particular, and as uniformity demands constraints on human agency. Impersonal rules are generated and transactional distance increases.

The ultimate result of this theoretical scenario is a counterproductive educational experience for the traditional HBCU population since conditions no longer match their particular needs. What began as a well-intended program to attract more students in a competitive and lucrative e-learning market has now produced an existential crisis where the longstanding distinctive institutional identity and ability to work with their traditional populations is compromised. Unless these forces are actively countered, HBCUs that make dramatic leaps into online distance education could be shooting themselves in their own proverbial feet, especially when they seek to compete head-to-head with HWIs and for-profit schools on a grand scale, rather than recognizing their special niche and expanding therein.

Implications and Conclusion

This theoretical essay has proffered one picture of damages HBCUs and their primary student population might sustain when they enter the arena of online distance education, and especially when they seek to do so on a large competitive scale. Although Figure 4 suggests a potential rather than a definitive predicament, it derives from existing theory and thus bears some consideration for decision makers at these schools. Other institutions of higher learning such as the for-profit University of Phoenix are able to pursue scaled-up online distance education with no attention to these concerns because theirs is a different model. This is evident in a statement like the one John Sperling, a key player in the founding of University of Phoenix, once made: "Coming here is not a rite of passage. We are not trying to develop value systems or go in for that 'expand their minds' nonsense" (Fish, 2009). Indeed, exponential growth, standardization, and uniformity only has the power to damage an environment that was borne of the opposite values and objectives, such as the one that defines many HBCUs.

Given the prediction of Figure 4, several implications for decision makers are worth considering as they guide America's HBCUs into this new territory. It is necessary to acknowledge that these implications are labor intensive and will require persistent effort to see through. However, their potential reward is flourishing online HBCU programs, just as their potential neglect could lead to the prediction espoused in the composite model.

- Begin with an honest assessment of the HBCU-based educational approach that takes place on campus already. This will give a realistic picture of what, if anything, a given HBCU has to lose by going online. Utilizing Figure 1 as a standalone tool for conducting organizational learning (Arroyo, 2013b), collect and analyze original institutional data to understand whether and how the particular local HBCU "behaves" like a prototypical HBCU. The more the particular HBCU aligns with Figure 1, the stronger it will reflect the first column of Figure 4. In other words, it will have more to lose than the HBCU that reflects Figure 1 to a lesser degree.
- After conducting the on-campus assessment, enter a period of crafting a unique HBCU-based pedagogical policy to govern all online initiatives going forward. The policy should be specific, detailed, and designed to preserve distinctives that have set many HBCUs apart since their inception (Arroyo & Gasman, 2013; Ekkano, 2013). By avoiding the temptation to build and launch programs that are not grounded in a specific HBCU-based pedagogical policy, the HBCU will risk less of what is at stake in terms of its distinctiveness. It will be better prepared to weather the naturally occurring hidden costs of expanding institutions. While setting forth a detailed pedagogical policy is beyond the scope of this article, a starting point is to cap classes at the lowest possible number of students. Far from lessening a professor's workload, administrators should consider the reasonable outer limit of what a good faculty member who is teaching a 4/4 or 5/5 load can manage with excellence, while staying faithful to the ideals of Figure 1. Real interaction between students and professor should be the goal, which is
impossible to achieve in large online courses.

- Develop and operationalize a set of ongoing measures—i.e., benchmarks and controls—to continually assess the state of information exchange and human freedom and individuality at each stage of online expansion. The previously developed pedagogical policy should prohibit further expansion if it is discovered that the institution and/or its students are incurring damage. It should include basic information such as semester-over-semester course passage rate comparisons (online versus on campus). It should disaggregate by student proximity to campus, including dividing students by those solely taking virtual courses and those taking a mixture. Moreover, it should include other qualitative and quantitative measures keyed to Figure 1 in areas such as identity formation and values cultivation to ensure the value-added elements are not being sacrificed.

- Finally, online teaching faculty must be hired and evaluated based on the extent to which they understand the existential nature of what is at stake when HBCUs go online. As cliché as it sounds, they are on the day-to-day frontlines. They hold the key to making sure online distance learning enhances rather than eviscerates the institution and the primary population. They should be leaders in developing and executing liberative, (trans)formational teaching philosophies and techniques (Arroyo, 2010; 2013a). Faculty development initiatives should be geared toward supporting their growth in these ways.

HBCUs and online distance education are not mutually exclusive propositions. Neither are they intuitively complementary. Hopefully the composite model, together with these implications, offers those responsible for guiding HBCUs a different measure of insight of the costs they face and how to reduce them. HBCUs are national treasures, as are the students they serve. Both deserve no less than the best.

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