

## **Sankofa Scale Validation: Culturally Relevant Pedagogy, Racial Identity, Academic Confidence, and Success**

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### **ABSTRACT**

The 'Sankofa' scale was constructed on the basis of perceptions of students about culturally relevant teaching and learning methods. This study established the construct validity of the scale. Participants ( $n = 171$ ) who were students from a historically black university, reported their agreement regarding the presence and importance of teaching strategies on a Likert-type scale. 'Relevance' of the teaching strategy was computed based on the multiplicative function of the reported presence and importance. Results of a factor analyses identified 8 factors which students deemed relevant to their learning. To establish construct validity, variables such as racial identity, academic confidence, and academic success were included on the survey. The following measures were used to assess racial identity and academic confidence, the Black Identity Development Scale, and the Academic Confidence scale. Academic success was defined as the student grade point average (GPA). Results indicated significant relationships between specific items on the Sankofa scale, specific subscales on the racial identity scale, as well as academic confidence and GPA. These results will enable educators to be responsive to the needs of the diverse student body. Establishing the scale's construct validity is important to help guide academicians in the realm of scholarly teaching and learning.

Keywords: cultural relevant pedagogy, racial identity, academic confidence, grade point average, African American

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## INTRODUCTION

Sankofa is an Akan symbol of positive reversion, which means 'return and take'. The symbol teaches the wisdom in acquiring knowledge from the past to help improve the future, thereby honoring the African cultural heritage (Agbo, 2011, p.2). The values of the Sankofa are intrinsic to the cultural relevant pedagogy captured by the Sankofa scale (Talpade & Talpade, 2014, 2016). Using an application of history and culture in pedagogy has been acknowledged as a critical factor by researchers for academic success among minority students (Almanza & Mosley, 1980; Berry & Mizelle, 2005; Tsurusaki et al., 2010). The need to celebrate and embrace cultural traditions has also been recognized in the involvement and engagement of black students in particular (Bourke, 2010). Recognizing the strategies that work for the minority students is important because of the documented gap in educational attainment. The U.S. Department of Commerce report on the educational attainment data by race across time (2000, 2010, 2016) reveals a significant gap between the average educational attainment of 18-24 year olds in the U.S. (36%, 41%, 41% respectively) compared to those of the black students which was, 31%, 38%, 36% across the three time periods. In Georgia, the educational attainment by race as reported by the census indicates 32.5 % of white race with a bachelor's degree or higher compared to 22.6% of the black race. Additionally, NCSES data show that the makeup of the student population in specifically STEM graduate programs does not reflect the diversity of the United States. Thus, establishing the construct validity of the Sankofa scale can provide an insight on how we can close this gap through culturally responsive pedagogy.

Researchers have indicated the relationship between racial identity, academic confidence, academic success, and culturally relevant pedagogy. Eight factors on the Sankofa scale, identified with a factor analyses and varimax rotation, explained 71% of the variance, which students deemed relevant to their learning (Talpade & Talpade, 2014, 2016). Thus, this paper seeks to identify how these variables relate to the factors/items on the Sankofa scale. Understanding these relationships is important to guide pedagogy and reap optimal academic outcomes for African American students.

## CULTURALLY RELEVANT PEDAGOGY, RACIAL IDENTITY, ACADEMIC CONFIDENCE, AND SUCCESS

Culturally responsive pedagogy is the use of cultural knowledge, experiences, frames of reference, of ethnic minority students so that learning becomes more relevant and effective for them (Garcia & Chun, 2016). The Sankofa scale was developed in response to the gap in educational attainment of African-American (AA) students. In 2009 Liddell and Talpade brainstormed with expert judges, and identified the effective teaching and learning practices from the African past, and in 2014 conducted a mixed methods study which included a qualitative exploration in a historically black university. The responses from the AA students revealed themes deemed culturally relevant for teaching and learning. Themes such as, storytelling, inclusion of non-verbal expressions and digital storytelling, were identified as some of the relevant teaching and learning strategies. Factors associated with resources relevant for the students such as texts written by individuals of one's own race and in the context of personal/communal relationships were identified as relevant and effective by the college students. Using methods involving interactions in class, peer mentors, and positive relationships with teachers were deemed important. Establishing personal relationships with the teachers

through access, feeling safe to disclose personal information, as well as using examples that students could identify with, were relevant to the students' learning. This was analogous to the emerged relevance of the strategy which included the making of references to contexts, that were relevant to the students. The use of technology by our students and its use for teaching and learning was considered relevant. The findings were followed by the construction of a survey with 37 items which were developed based on the themes and administered to AA students. Results revealed 8 factors based on a factor analyses with varimax rotation deemed relevant to the students (Talpade & Talpade, 2016). The extracted factor loadings from the study are depicted in Table 1 (see Appendix).

The academic effectiveness of cultural relevant pedagogy has been documented by several researchers. Landau, Oyserman, Keefer, and Smith (2014) mourn the current state of academic competition and weeding, especially in STEM classes, where tests with disparate cultural knowledge and skills are used for assessment, resulting in performance disparities for students from different cultures. Winston-Proctor (2018) initiated a culturally responsive course model which applied active learning and critical thinking in an interactive manner. Similarly, Landau, et al. (2014) used identity-based motivation theory demonstrated that connecting a student's identity to that of an 'accomplished student' is related to positive academic outcomes. Thus, the focus on the student's identity is important and the relationship between culturally relevant pedagogy and racial identity of the AA students must be considered. The role of academic self-efficacy in the reduction of test anxiety and boosting of academic confidence has also been identified (Raufelder & Ringeisen, 2016). The use of culturally relevant pedagogy is expected to boost this academic confidence and thus impact student academic performance. This study therefore will consider the relationship between the use of the culturally responsive pedagogy and academic confidence. Furthermore, the instructors play an important role in maintaining mutual respect and for engaging in culturally responsive pedagogy, which in turn has an impact on the achievement of the ethnic minority students (Kumar, Karabenick, & Burgoon, 2015). Thus, it is important to understand the relationship between factors on the Sankofa scale and academic achievement. Garcia and Chun (2016) study with Latino middle school students revealed positive effects of diverse teaching practices on academic self-efficacy and the positive effect of high teacher expectations on academic performance (p. 173).

Dawson and Quiros (2014) explored the experiences of nine Latinas, with a focus on racial identity development. They contend that cultural socialization which includes ethnic pride, history, and heritage is associated with academic achievement. Quantitative assessments (Constante, Marchand, Cross, Rivas-Drake, 2018; Herrington, Smith, Feinauer, Griner, 2016; Umaña-Taylor, Tynes, Toomey, Williams, & Mitchell, 2015) also document the relationship between ethnic racial identity and positive academic outcomes. The components of ethnic identity, that of exploration, resolution, and affirmation were positively associated with positive outcomes, more so for the older adolescents (Umaña-Taylor, Tynes, Toomey, Williams, & Mitchell, 2015). Some studies (Hoffman et al., 2019) which included minority French middle school children did not find this relationship, however, if school success was valued by one's ethnic group, then there was evidence of a positive relationship with academic goals. A meta-analysis of 51 studies and 18,545 participants ranging from early adolescence to adulthood indicated that racial discrimination was associated with compromised adjustment; and this effect was moderated by the overall ethnic racial identity, particularly for academic and physical health outcomes (Yip, Wang, Mootoo, Mirpuri, 2019).

Researchers thus have noted the relationships between culturally relevant pedagogy and a student's identity, academic confidence, and academic performance. The present study thus included the following variables to establish construct validity of the Sankofa scale; racial identity, academic confidence, and grade point average (academic success). It was expected that (a) the Sankofa scale items will be positively correlated with GPA; (b) the Sankofa scale items will be positively correlated with the Academic Confidence score as measured by the Academic confidence scale; (c) the Sankofa scale items will be correlated with the racial identity stage as measured by the racial identity scale, specifically, positively correlated with encounter, immersion/emersion, and integration stages, and negatively correlated with the pre-encounter stage.

## **METHODS**

### **Participants**

Participants (N = 171) answered the questionnaire which included the Sankofa Scale items, the racial identity scale, the academic confidence scale, and provided access to their grade point average (GPA). Participants were students at a historically black university, with gender being reported as female (77%) and male (2%). Missing data on gender accounted for approximately 20%. Majority of the respondents were undergraduate students, juniors (36%) or seniors (20%). Students reported being at the current institution for a duration that ranged between 2 months to 4 years. The areas of study ranged from social sciences to sciences. Majority were African American (93%), with a few reporting as being Hispanic (3%) and Native American (1%). A total of 118 students provided their student number to allow the primary researcher to access their GPA through an online reporting system, which ranged from 1.86 to 3.96 (M = 3.04, SD = .43).

### **Measures**

#### ***Sankofa scale.***

Participants responded to 10 items identified by Talpade and Talpade (2016) as being relevant to the target population. These items were rated by the respondents on a 5-point likert scale ranging from 1= Strongly Disagree, and 5 = Strongly Agree as well as on importance, with 1= Not at all important, and 5 = Very Important. 'Relevance' was the new variable computed based on the following multiplicative function of (rating of agreement) x (rating of importance). Reliability for the scale was adequate (Cronbach's  $\alpha = .735$ ).

#### ***Racial identity scale.***

The Helms and Parham (1990) scale was administered to the participants. This modified version of Helms and Cross' Black Racial Identity Attitudes Scale included 44 statements and each statement was rated on a 5-point likert scale, with 1= Not at all Characteristic of Me and 5 = Highly Characteristic of Me. Some of these statements communicate 'concrete action', for example, I constantly involve myself in Black political and social activities (greek letter organizations, clubs, student government, parties); some are 'descriptive terms', for example,

When a stranger who is Black does something embarrassing in public, I get embarrassed, and others are statements of 'personal values and beliefs', for example, I believe that because I am Black, I have many strengths. The 44 statements identified a characteristic of the individuals' identity development stage. There were four identity development stages; (1) Pre-encounter, which indicated that the individual identified with the white culture, while rejecting membership in the black culture; (2) Encounter, which was characterized by the rejection of the white culture and seeking identification with the black culture; (3) Immersion/Emersion, which indicated that the individual completely identified with the black culture and denigrated the white culture; (4) Integration/Commitment, the stage in which the individual transcends racism, fights general cultural oppression, and internalizes the black culture. An example of a sample item for the Pre-encounter stage is, Most Black people I know are failures; an example of a sample item for the Encounter stage is, People, regardless of their race, have strengths and limitations; an example of a sample item for the Immersion/Emersion stage is, I believe that White people should feel guilty about the way they have treated Blacks in the past; an example of a sample item for the Integration/Commitment stage is, A person's race has little to do with whether or not he or she is a good person. Reliability for the stages on the scale was adequate (Cronbach's  $\alpha = .865$ ).

### ***Academic confidence scale.***

This scale (Zajacova, Lynch, & Espenshade, 2005) includes 27 academic tasks considered relevant and important to academic success. Examples of items on the scale are, Asking questions in class, My parents' expectations of my grade, Researching term papers, Doing well in my toughest class. Each of the items were rated on a 11-point scale, with 0=Not at all confident; 10= Extremely confident. Participants in this study used a slider to indicate their confidence related to each of the scale items. The ratings on the 27 items were added to calculate the overall Academic Confidence score. The reliability for the 27 scale items was adequate (Cronbach's  $\alpha = .955$ ).

### ***Grade point average (GPA).***

The following scale was used to calculate the GPA: A = 4.0 points, B = 3.0 points, C = 2.0 points, and F = 0 points. Using the credits for the courses completed at the current institution, a 4, 3, 2 or 0 for each course was assigned (credits earned x points), added together and then divided by the total number of academic credits earned. This academic GPA is entered into a system called degreeworks at the current institution from which the participants were recruited.

### **Procedures**

Permission from the institution review board (IRB) was followed by recruitment of participants. An online survey platform, Qualtrics, was used to administer the IRB approved consent form followed by the questionnaire which included demographic questions and the three scales (Sankofa, Racial identity, Academic confidence). If a participant did not consent to taking the questionnaire, the individual was taken to a thank you page and the individual exited the questionnaire. A link to the questionnaire was posted by instructors on a course page using an incentive such as extra credit. To receive extra credit, the students had to enter their name on the questionnaire. This information was only accessible to the primary researcher, who shared the

names with the instructors, for extra credit purposes. Confidentiality was maintained, and participants could stop participating at any time without any loss of extra credit. Participants were asked to provide their student numbers so that the researcher could access the GPA information from degreeworks, for accuracy. Data from the survey is stored on a password protected computer accessible only to the researcher. One research assistant helped with the study, and was only provided with the required data needed for the analysis, with the names of the participants removed. Thus, ethical procedures for research with human participants code of conduct were followed.

## RESULTS

A correlational analysis was conducted between the items on the Sankofa scale identified as relevant to the minority students at a historically black university, and the variables such as grade point average, racial identity, and academic confidence. The SPSS 25.0 was used to test the assumptions required to conduct the analyses. Scatter plots and normal probability plots of the residuals were examined before conducting the Pearson Product-moment correlational analyses. All the variables were on the interval scale, there was a linear relationship between the variables, and the residuals were normally distributed. The results of the analysis are summarized in Table 2 (see Appendix).

## DISCUSSION

The Sankofa scale items revealed significant relationships with some items of the selected variables. The expectation that culturally relevant pedagogical practices would be related to the construct of academic success as assessed by the GPA was supported. It is important to note that it wasn't just references to culture but the use of textbooks written by people of one's own race that was related to academic success. This finding is explained by researchers of multicultural education. It is not only important to portray diversity of characters in children's books but also of authors (Buescher, Lightner, & Kelly, 2016). Buescher et al. (2016) noted the underrepresentation of authors of color and call publishers and educators for action on this note, "When popular reading series present students with stories that are predominantly told by only one group of people, what message does that send to our students?" (p. 34). Bickmore, Xu, and Sheridan (2017) finding of underrepresentation in the national book awards is also noted. The authors content analysis of culturally relevant texts, meaning those texts that are written about a culture by cultural insider and engage students within that culture, were mainly about struggles with identity, racism, socio-economic challenges. This type of literature the authors believe is important to provide guidelines for children/students the strategies to survive instead of protecting them from reality. Unfortunately, "...practicing teachers continue to be White middle class females who find themselves as cultural outsiders in the schools they teach. We claim it as inappropriate to offer book lists that are 75% White authors and only 25% diverse if they teach classes that can be 40%, 50% or even 100% populated by students of color"(p.51). In the current setting of our historically black university, the use of textbooks written by African American authors is thus imminent.

Racial identity, specifically the identity development stages were significantly associated with certain items on the Sankofa scale. Making references to people places things that students could relate to, as well as visiting one's professor, or interacting with professors outside of class,

was associated with the ‘pre-encounter’ and ‘integration’ stage of identity development, which are contradictory in the sense that pre-encounter is associated with the rejection of black culture, and integration is associated with transcending racism and internalizing the black culture. Our HBCU has a homogenous student body, but a diverse body of faculty. It is also noted that making such references to people, places, and things that students can relate to was positively correlated with the immersion stage of identity development which included identification with the black culture, while denigrating the white culture. It is thus possible that depending on the classes taken and faculty relationships forged by the student, the impact of type of references made to individuals of one’s race as the type of interactions with the faculty, may shape the student’s racial identity. As researchers indicate, the role of practices in school settings do influence the development of racial identity and consciousness (Aldana & Byrd, 2015). Chavez and Guido-DiBrito (1999, p.45) assert that “...educators must continually reflect on the influence of the relationship between their own racial and ethnic identity and how they define an effective learning environment and a successful learner. Feelings of comfort and “rightness” for many educators are likely to mean that they have created a learning environment based on their own cultural norms rather than on a multicultural learning framework.”

The role of culturally relevant pedagogy as assessed by the Sankofa scale was overwhelmingly and significantly correlated with the construct of academic confidence. The use of culturally relevant teaching strategies such as making references to things students could relate to such as group work, use of storytelling, and comfortable student-teacher relationships, were positively correlated with academic confidence. The positive impact of culturally relevant pedagogy has been documented in classrooms (Martell, 2018), and the optimal impact of being personally invested in the learning content which stimulates engagement, expression, and critical thinking has been recognized in the educational settings (Stowe, 2017). Furthermore, the use of group work and teaching peers, and the use of culturally relevant peer interactions, have been evidenced to deliver positive college going behaviors (Marciano, 2017). Strong relationships between teachers and students deliver positive school experiences and academic behaviors such as academically engaged time in the classroom and less disruptive behaviors (Cook et al., 2018). To foster academic confidence, Roufelder and Ringeisen (2016) suggest that teachers should work on building the students’ control beliefs and help develop skills with short term goals and realistic evaluations. The use of culturally relevant pedagogy, using strategies that have worked in the culture, possibly helps build this academic confidence while developing a students’ control belief in academia.

The role of academic confidence has been associated with academic sustenance, a construct which includes encouragement, drive, grounding and efficacy among undergraduate students (Hill, 2017). Culturally relevant pedagogy may well be providing the encouragement, drive, and grounding in academia to help students build academic confidence. Academic confidence, as Hill (2017) asserts, prepares and helps students deal with academic challenges. Academic confidence was found to be associated with academic reading achievement among fourth grade youth (Ayers, 2010), improved first year retention (Mirijanian, 2018). Thus, the Sankofa scale identifies an important construct for the academic success of minority students.

Theoretical underpinnings of the construct validity relate to the critical race theory, which render the “invisible visible” and “unvoiced voiced” (Merriweather, 2015). Acceptance that racism is a fact, this study affirms the use of culturally relevant pedagogical strategies to enhance academic confidence and academic success among minority students. Despite these compelling findings, some limitations are noted. The results are applicable and perhaps limited to minority

students in the southern part of the US. Also, the impact of the strategies on racial identity seems to be variant. The problem of self-report is a misnomer in survey methodology.

However, past research conducted across the nation and internationally confirms the role of culturally relevant pedagogy in academic success. Also, the variant results related to racial identity maybe a result of a time series, with changes in the identity development stage, over time. Current participants reported being at the institution over a wide range (3 months to 4 years). Thus, considering the longitudinal impact of cultural relevant pedagogy on racial identity would be informative. Also, despite the limitations of self-report, the scales indicated acceptable reliability.

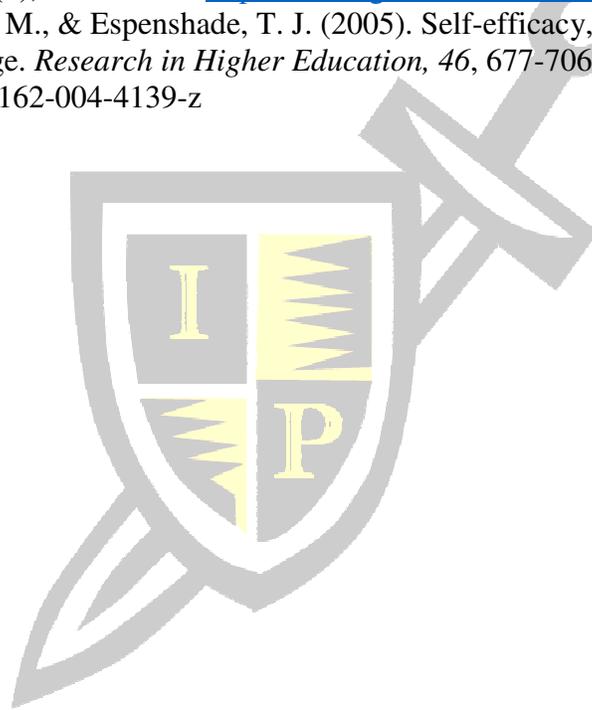
The Sankofa scale thus demonstrated convergent validity with academic confidence, racial identity, and academic success. The item correlations of this scale provide guidance for incorporating teaching strategies which will be useful in the academic realm.

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## APPENDIX

TABLE 1

Extracted Factor Loadings X Items

Scale Items	Factors*	Item Loadings
	<b>Student centered course resources*</b>	
1. My instructors use textbooks in class that are written by people of my own race		.816
	<b>Teacher access*</b>	
2. My instructors make references to people, places, things, that I can identify with.		.803
8. I feel comfortable approaching my instructors during their office hours		.869
9. My instructors encourage me to visit them during their office hours.		.815
	<b>Community learning*</b>	
3. My class assignments include group projects		.826
	<b>Non-Verbal expressions*</b>	
4. In addition to writing and oral communication, we are encouraged to include nonverbal communications during class presentations.		.836
	<b>Storytelling*</b>	
5. My instructors use stories to communicate the important concepts in the class		.830
	<b>Community teaching*</b>	
7. My instructors have had me teach another person who did not understand a concept.		.796
	<b>Personal relationships*</b>	
10. My instructors know about the significant others and incidents in my life		.767
	<b>Digital storytelling*</b>	
6. My instructors encourage the use of digital story telling in my classes.		.749

**Note.** From Talpade, M. & Talpade, S. (2014). 'Sankofa' teaching and learning: Evaluating relevance for today's African-American student. *Journal of Instructional Pedagogies*, 15.  
<http://www.aabri.com/manuscripts/152204.pdf>

**TABLE 2**

Summary of Intercorrelations: Grade Point Average (GPA), Racial Identity Components, Academic Confidence, as a function of Sankofa Scale Factors

Scale Items	GPA	Racial Identity Components				Academic Confidence
		Preencounter	Encounter	Immersion	Integration	
1	.243*	.054	.040	.177	.177	.016
2	.164	.324**	.095	.236*	.253*	.279*
3	.060	.047	-.052	-.046	-.007	.223*
4	.201	.048	-.028	.149	-.040	.150
5	.177	.141	-.019	.053	.110	.346**
6	.059	.036	.096	.213	.001	.059
7	.076	.030	-.037	.060	-.037	.219*
8	.045	.197	.014	-.155	-.016	.399**
9	.169	.277**	.076	.064	.222*	.402**
10	-.044	.153	.036	.089	.094	.189

Note.\*  $p < .05$ , \*\*  $p < .01$ , 2-tailed.

- 1: My instructors use textbooks in class that are written by people of my own race
- 2: My instructors make references to people, places, things, that I can identify with
- 3: My class assignments include group projects
- 4: In addition to writing and oral communication, we are encouraged to include nonverbal communication
- 5: My instructors use stories to communicate the important concepts in the class
- 6: My instructors encourage the use of digital story telling in my classes
- 7: My instructors have had me teach another person who did not understand a concept
- 8: I feel comfortable approaching my instructors during their office hours
- 9: My instructors encourage me to visit them during their office hours
- 10: My instructors know about the significant others and incidents in my life