Structural Analysis of Character Education: A Cross-Cultural Investigation

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**ABSTRACT:** The primary objective of this cross-cultural investigation is to compare patterns in student responses to an empirically scrutinized character education measure administered to students in four school districts in Florida with students in a school in Kenya. In this way, the generalizability of findings for scale scores could be compared across cultures. To this end, we conduct a mean structure analysis using structural equation modeling to observe whether multivariate mean differences exist among the factor structures underlying student responses. The results suggest that while students at a school in Kenya rated their school higher on the four scales, overall the latent scores for students within school districts in the United States appear higher. Thus, with respect to the underlying construct of character, this character education measure evidences some multicultural bias at the level of the latent scores. Based on these results, it is concluded that the character education measure does not completely yield generalizable results across cultures.

Character education represents a vibrant stream of educational research and practice. In 2007, the most recent systemic review of character education research to date, researchers attempted to establish a more coherent picture of what is effective in character education (Berkowitz & Bier, 2007). These researchers were able to incorporate 64 empirical studies, three meta-analyses, and two literature reviews demonstrating positive effects of 33 character education programs. The federal government supported this movement through grants from the Department of Education and, from 1995 to 2005, 45 states were awarded funding for partnership initiatives. Additionally, from 2004 to 2009, 20 states, the District of Columbia, and Guam shared $79.9 million in grant funding to promote character education in the school (Office of Safe and Healthy Students, 2011).

Despite the upsurge of interest in character education since the 1980’s (Berkowitz & Bier, 2007), there is a dearth of empirical studies dedicated to the measurement of character education, particularly those using sophisticated analytical procedures capable of detecting whether one common factor such as character underlies measures of kindness, caring, respect, responsibility, fairness, and
honesty. There is a need for sound tools of measurement in the field of character education to compare findings across studies (Snyder, 2014). Therefore, this study is designed to determine whether differences exist between students attending four school districts in Florida and a school in Kenya. Such a comparison may provide some evidence of cross-culture generalizability relative to character education.

THEORETICAL FRAMEWORK

Whereas multiple definitions of character education exist, in a broad sense the phrase character education at one time referred to almost anything that schools might try to provide outside of academics, especially when the purpose is to help children become good people (Robinson, Jones, & Hayes, 2000). In a narrow sense, the term denoted a particular style of moral training, one that promoted instruction and indoctrination of specific values (Kohn, 1996, p. 429). Thus, at the heart of character education was a belief that there are specific virtues that should be a part of education for all students. From this point, the field spread in different directions. Kohn (1996) emphasized the need for character education to broadly address the desire to help children become good people.

The heart of the character education movement concerns teaching values and moral virtues. So, the term character is less controversial than such terms as morals and values and brings a more “old-fashioned concept to mind which evokes a set of internal qualities that have always been admired as hallmarks of goodness, virtue, and moral maturity” (Kirschenbaum, 1995, p. 21).

Contemporary thinking about character education has seen many philosophical shifts of emphasis as the term has evolved throughout the centuries and recent decades (Walker, Roberts, & Kristjánsson, 2015). Although critical theory is still emerging, Walker and colleagues (2015) defined most recent trends in the philosophy of character education by what they called “the flourishing pupil” (p. 84). The flourishing pupil can be understood by the following three principles: (a) the ascension of virtue ethics within the field of moral philosophy, (b) the reemergence of Aristotelianism in educational philosophy, and (c) the positive psychology movement’s proposed paradigm shift from a disease model to a wellness-based model of human flourishing. Likewise, they believe there are three contemporary themes that further characterize the flourishing pupil: (a) the teleology of human flourishing as a primary aim of education, (b) virtues as being inherent and worthwhile ends in themselves and essential for human flourishing, and (c) recognizing that all education is unavoidably value laden and therefore character education cannot be subsectioned into special classes that explicitly focus on such themes. The goals of education broadly, then, are inherently tied into the goals of character education more specifically (i.e., the development of good character traits). The goal of character education, from the standpoint of the flourishing pupil, is not overly individualized, as if individual students occupied social environments devoid of cultural and political influences. Instead, virtue can only be aspired to under the right conditions. Character education includes systemic change in symbiotic relationship with individual change. Thus, taking into account school climate is essential to any theory of character education and, by logical extension, its measurement.

SCHOOL CLIMATE

School climate can be described by three factors: the attitude, feeling, and behavior of a student (Hernandez & Seem, 2004). The environment reflects positive and negative feelings concerning students’ attitudes and perceptions toward their school. The students’ attitudes may include how safe they feel in the school, whether the environment is supportive of them, and whether they feel comfortable in this environment (Edwards, Mumford, & Serra-Roldan, 2007). Dorsey views school climate as a function of four significant relationships: (a) the relationship of the student to himself or herself; (b) the relationship of the student to his or her peers; (c) the relationship of a student to his or her parents and community; and (d) the relationship of the student to his or her school including teachers, administrators, and staff.
(Hernandez & Seem, 2004). When a student feels connected, research has consistently demonstrated that the student achieves higher academically, is less likely to become a juvenile delinquent, and is less likely to become involved in risky behaviors (Cunningham, 2007; Edwards, 2009; Shillingford & Edwards, 2008; White & Warfa, 2011).

Scholars in this field of study indicate school climate encompasses the feelings students and school staff possess regarding the class and school environment (Hoy, Smith, & Sweetland, 2002). This may be seen to include how comfortable students are in the school environment, their sense of physical and emotional safety, and the conduciveness of the environment to learning (Peterson & Skiba, 2001). Other scholars posit that a safe school climate encompasses students, school staff, and parents interacting in positive ways that support the mission of the school (Edwards & Taub, 2009).

School climate has been shown to directly affect student behaviors. Specifically, student perception of school climate has an impact on levels of misconduct at school (Khoury-Kassabri, Benbenishty, Astor, & Zeira, 2004). Research suggests school climate explained more of the between-school variance in students’ reports of victimization than any other factor (Khoury-Kassabri et al., 2004). Other scholars assert that “[t]hough less explicit than the academic curriculum, the expectations, rules, and consequences that form the social curriculum of schools are no less important in determining school success” (Skiba & Peterson, 2003, p. 66). Essentially, school climate becomes equally important to the academic curriculum in promoting student success (Skiba & Peterson, 2003).

The primary objective of this investigation is to compare patterns in student responses to an empirically scrutinized character education measure administered to students in Kenya and four Florida school districts. In this way, the cross-cultural generalizability of the measure may be assessed. We were interested in observing whether differences exist among the student ratings by group. Although both the geographic discrepancy and the heterogeneity between the groups may be taken to strongly suggest that the groups are different, left untested this remains an open question. This question is best answered through empirical inquiry.

To this end, we conducted a mean structure analysis using structural equation modeling to observe whether multivariate mean differences exist among the factor structures underlying student responses. Specifically, four research questions were answered:

**Multisample analysis: Are factor loadings invariant across groups?**
- Is the confirmatory factor model tenable for all groups simultaneously?
- Is there a difference between corresponding confirmatory factor model parameters estimated across the groups?

**Structured mean models**
- Are the intercepts invariant across groups?
- What is the standardized effect size between the Florida school districts and Kenya?

**METHOD**

The study participants were 5,334 students attending public schools in four Florida school districts and one school in Kenya. The districts in Florida are geographically dispersed (from the northeast, central, southwest, and southeast regions). The researchers initially met with a team from each of the four participating districts and established an evaluation plan that was consistent across the districts. This included selecting schools within the districts of varying size and socioeconomic demographics. Although geographic data were collected on the students, information about their gender and ethnicity were not collected to protect the students from being identified in the interest of anonymity. Table 1 identifies the number of students in each school district including Kenya.
The CHARACTERplus character education measure consists of four scales, together comprising 29 items total: Kindness and Caring, Respect and Responsibility, Fairness and Honesty, and School Expectations (of a student’s behavior). These four scales thematically address dimensions of character consistent with the literature, dimensions widely identified as the hallmarks of character education (see Carr, 2000). Items developed for each scale were written to address a specific behavior relevant to the dimension of character under which it is subsumed. This 29-item measure was administered to students in four school districts in Florida (spread across the state) and a school in Kenya. The number of students in each group and the overall reliability of the scores on each scale are presented in Table 1. The reliabilities of the scores on each scale, by group, range from satisfactory to excellent.

### Procedure

Florida’s Partnership in Character Education (FPCE) links both established and new K–12 district character education programs and programs in law-related education, service learning, and conflict resolution. Ultimately, through a statewide model partnership, the mission of the FPCE is to develop or enhance programs that will foster the development of positive character attributes within Florida’s K–12 schools. These attributes include such traits as kindness and caring, civic virtue and citizenship, respect, responsibility, and other traits that have been identified by the partners as important for Florida’s youth.

A mean structure analysis was conducted using LISREL, a structural equation modeling software program. Given the importance of understanding cross-cultural differences with respect to student demonstrations of kindness, caring, respect, responsibility, fairness, and honesty, this analytical strategy proves to be valuable. Mean structure analysis will be completed in two steps. First, we examine whether the factor loadings are invariant across group. Then we examine whether the intercepts are invariant.

The model fitted to the data is a confirmatory factor model, specified to have the aforementioned four indicators of character education and one common factor. This model was fitted to a covariance matrix.
augmented by mean structures taken from the six student groups previously identified. The fit indices consulted for the determination of the overall fit of a given model were the Root Mean Square Error of Approximation (RMSEA) and Comparative Fit Index (CFI) based on recommendations in the Structural Equation Modeling literature (Fan & Sivo, 2005, 2007, 2009; Sivo, Fan, Witta, & Willse, 2006).

RESULTS AND DISCUSSION

Analysis of the covariance structures across groups without constraints imposed revealed that the one factor model fitted to the data was capable of accounting for much of the variability in the data. A review of the chi-square revealed that it was just over twice the size of the degrees of freedom. Moreover, the RMSEA exceeded the desirable metric of .06 that is specified for mean structure invariance studies (Fan & Sivo, 2009). Both findings suggest that some room for improvement is possible, yet the CFI indices by exceeding .95 suggested that overall the model fits all data simultaneously very well (see Table 2). Examination of lambda paths by school district revealed that the relationship between each of the manifest variables and the underlying factor varied by location to some degree. To get a better picture of the way in which the paths vary, Table 3 places the values side by side for comparison.

The next step is to constrain parameters where possible, one pair at a time, followed by a review of modification indices and the associated chi-square values. The objective is to make the model more parsimonious without provoking the chi-square or corresponding modification indices into poorer fit. After this process was complete, not only was the multisample model fitted to the data more parsimonious through the imposed equality constraints (see Table 4), but the overall model fit slightly better than the previous model. Table 5 revealed that although the chi-square increased in value from 27.853 to 30.419, the degrees of freedom increased from 10 to 14, suggesting a more parsimonious value and indeed the probability value associated with final chi-square actually increased a tad. In fact, the chi-square is now only just over twice the value of the degrees of freedom suggesting improved fit. The sensitivity of the chi-square to sample size is a well-known problem with this index, and so a plethora of alternative fit indices have been created. Consultation of the RMSEA (≤ .05) and CFI (≥ .95) suggests that the model continues to fit well, and with regard to the RMSEA, the model's fit has improved. These results are all to be found in Table 5. Attending how the results obtained from the school in Kenya compare to the results across the Florida school districts, it may be observed that the Kenyan results approximate the results for the Florida districts; however, the lambda values do appear smaller in magnitude across all variables. The ordinal position of the lambda paths in terms of their magnitude across the four manifest variables for Kenyan students resemble ordinal pattern observed across other counties, with the

Table 2. Fit Results for One Factor Confirmatory Factor Model Across All Groups

<table>
<thead>
<tr>
<th>Minimum Fit Function Chi-Square (df = 10) = 27.853, p = 0.00191</th>
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<tbody>
<tr>
<td>• School in Kenya’s contribution to chi-square = 4.633</td>
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<tr>
<td>• Northeast Florida district schools’ contribution to chi-square = 0.162</td>
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<tr>
<td>• Central Florida district schools’ contribution to chi-square = 2.541</td>
</tr>
<tr>
<td>• Southwest Florida district schools’ contribution to chi-square = 10.803</td>
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<tr>
<td>• Southeast Florida district schools’ contribution to chi-square = 9.714</td>
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<tr>
<td>Chi-square for independence model with 30 degrees of freedom = 3529.960</td>
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<tr>
<td>RMSEA = 0.0622</td>
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<tr>
<td>90% confidence interval for RMSEA = (0.0358; 0.0899)</td>
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<tr>
<td>CFI = 0.995</td>
</tr>
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</table>

Note. RMSEA = Root Mean Square Error of Approximation; CFI = Comparative Fit Index.
Kindness and Caring scale usually evidencing the strongest relationship with the latent factor and School Expectations evidencing the weakest relationship. Nevertheless, the fit of the model to the Kenyan data was sufficient according to the associated chi-square and fit indices. The heterogeneity that exists among students at the Kenyan school is likely to be the primary factor.

Table 3. Standardized Lambda Path Values for One Factor Confirmatory Factor Analysis Model by School District

| Lambda Paths                        | Kenya  
<table>
<thead>
<tr>
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<tbody>
<tr>
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<td>(n = 462)</td>
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</table>
|                                     | Northeast Florida  
|                                     | (n = 223) |
|                                     | Southwest Florida  
|                                     | (n = 803) |
|                                     | Central Florida  
|                                     | (n = 401) |
|                                     | Southeast Florida  
|                                     | (n = 471) |
| Kindness and Caring (Questions 1–10) | 4.412  | 4.482  | 4.803  | 4.764  | 4.363  |
| Fairness and Honesty (Questions 18–24) | 3.500  | 3.707  | 3.882  | 4.395  | 3.744  |
| School Expectations (Questions 25–29) | 0.924  | 1.367  | 2.100  | 1.702  | 1.424  |

Note. All lambda paths were statistically significant at the .05 alpha level. Although some notable discrepancies across similarly positioned lambda paths are evident, some similarities in lambda values are identifiable as well.

Table 4. Constraints on Lambda Path Values for One Factor Confirmatory Factor Analysis Model Across Districts

| Lambda Paths                        | Kenya  
<table>
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<tr>
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<tbody>
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<td></td>
<td>(n = 462)</td>
</tr>
</tbody>
</table>
|                                     | Northeast Florida  
|                                     | (n = 223) |
|                                     | Southwest Florida  
|                                     | (n = 803) |
|                                     | Central Florida  
|                                     | (n = 401) |
|                                     | Southeast Florida  
|                                     | (n = 471) |
| Kindness and Caring (Questions 1–10) | 4.412  | 4.463  | 4.765  | 4.674  | 4.504  |
| Respect and Responsibility (Questions 11–17) | 3.670  | 4.136  | 4.463  | 3 and 5 constrained  | 4.802  | 4.219 3 and 5 constrained |
| Fairness and Honesty (Questions 18–24) | 3.500  | 3.712  | 2 and 5 constrained  | 3.878  | 4.391  | 3.745 2 and 5 constrained |
| School Expectations (Questions 25–29) | 0.924  | 1.399  | 2 and 5 constrained  | 2.000  | 3 and 4 constrained  | 1.962  | 3 and 4 constrained  | 1.412  | 2 and 5 constrained |

Note. All lambda paths were statistically significant at the .05 alpha level.
The next step is to test the intercepts associated with each of the multisample equations. An intercept is associated with each manifest variable for each group under comparison (these are each called a Tau). Moreover, each factor estimated for a group has an intercept called an Alpha. The latent factor in the present study has been defined as endogenous to the latent mean. This disposes this treatment of the results to include a calculation of standardized effects. The question at this point concerns whether the mean structure is the same across the five groups under comparison. Particular attention will be paid to how the results from Kenya compare with the results from the four Florida counties.

**Structured Mean Models**

When examining the intercepts across groups (both the Taus and the Alphas), constraints were possible across all Florida counties with respect to Fairness and Honesty (see Table 6). A consistent finding across all analyses conducted thus far in terms of the modification indices was that freeing correlations between two pairs of manifest errors would increase the fit of the model all the more. Although the models were specified to detect a single latent factor underlying the scores of the manifest measures, it is possible that for certain student groups unaccounted for patterns of consistency between scale responses are possible. In the case of the southwest Florida school district, students responded to the Kindness and Caring and School Expectations scales in a consistent way not accounted for by the latent factor specified. Therefore, a correlation was estimated between the manifest errors associated with these scales. With respect to the southeast Florida school district, students responded to the Fairness and Honesty and School Expectations scales in a consistent way not accounted for by the latent factor specified. Therefore, a correlation was estimated between the manifest errors associated with these scales. An explanation for these correlations may be that school district policies in effect played a role in how students responded to the scales. Both error correlations freed pertain to school expectations, so it may be that in their character education curriculum these school districts differentially emphasize either Fairness and Honesty or Kindness and Caring. Any programmatic emphasis on these areas by school districts is likely to be perceived by the students as expectations of the school. Once both error correlations are specified for the respective groups, notably that the fit indices (the RMSEA and CFI) produced by the analysis exceeded their respective criteria (RMSEA ≤ .05 and CFI ≥ .95; see Table 6). Furthermore, the chi-square value is now far below twice the value of the degrees of freedom.

All equality constraints imposed had the net effect of improving the model greatly, yet two additional changes were suggested by the modification indices. When comparing the school in Kenya with the Florida school scores and other combinations of counties for the remaining variables, what may be seen is that in terms of manifest level intercept differences the students attending the school in Kenya perceive their school somewhat differently than students in the four Florida school districts, though similarities exist as well. Overall, students at the school in Kenya rate their school as more kind and caring than students in the Florida school districts to a noticeable extent (Tau = 36.204). Indeed, they appear to rate their school much higher than students in the Florida school districts in every instance but School Expectations. Indeed, the Florida school districts compared to one another with respect to the Taus are quite similar (see Table 7).

**Table 5. Fit results for One Factor Confirmatory Factor Model Across All Groups**

| Minimum fit function chi-square (df = 14) = 30.419, p = 0.00668 |
| Chi-square for independence model with 30 degrees of freedom = 3529.960 |
| RMSEA = 0.0503 |
| 90% percent confidence interval for RMSEA = (0.0257; 0.0746) |
| CFI = 0.995 |

*Note. RMSEA = Root Mean Square Error of Approximation; CFI = Comparative Fit Index.*
On the other hand, review of the latent scores pertinent to exhibiting the overall characteristic of character suggests that students in the Florida school districts were much more consistent in responding across the four scales than the students in Kenya. This is evident by the stronger lambda paths between the manifest variables and latent variables. The higher degree of consistency has the effect of making Florida students achieve higher latent scores, so that, in terms of their overall assessment of the character of their schools, Florida students, ironically, rated their school higher than the students in Kenya. The students in Kenya have rated their scales in a way that is less consistent across scales suggesting that overall they tended to see the content of the scales as addressing more distinct factors. For this reason, their Alpha intercept score is lower than the latent intercept scores attained by students in the Florida school districts. Review of the mean latent scores across groups confronts our interpreting the results with the problem of the relative metric of the latent scale. This motivated us to set the Kenyan latent mean to zero, so that standardized effect sizes could be calculated. Observe that the latent

Table 6. Constraints on Intercept Values for the One Factor Confirmatory Factor Analysis Model Across Districts

<table>
<thead>
<tr>
<th>Intercepts</th>
<th>Kenya ($n = 462$)</th>
<th>Northeast Florida ($n = 223$)</th>
<th>Southwest Florida ($n = 803$)</th>
<th>Central Florida ($n = 401$)</th>
<th>Southeast Florida ($n = 471$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kindness and Caring (Questions 1–10) (Tau 1)</td>
<td>36.204</td>
<td>24.148 2, 4, and 5 constrained</td>
<td>24.652</td>
<td>24.148 2, 4, and 5 constrained</td>
<td>24.148 2, 4, and 5 constrained</td>
</tr>
<tr>
<td>Respect and Responsibility (Questions 11–17) (Tau 2)</td>
<td>25.208</td>
<td>15.763 2, 3, and 4 constrained</td>
<td>15.763 2, 3, and 4 constrained</td>
<td>15.763 2, 3, and 4 constrained</td>
<td>15.271</td>
</tr>
<tr>
<td>Fairness and Honesty (Questions 18–24) (Tau 3)</td>
<td>23.643</td>
<td>15.321 2, 3, 4, and 5 constrained</td>
<td>15.321 2, 3, 4, and 5 constrained</td>
<td>15.321 2, 3, 4, and 5 constrained</td>
<td>15.321 2, 3, 4, and 5 constrained</td>
</tr>
<tr>
<td>Character Factor Intercept (Kappa)</td>
<td>0.000</td>
<td>4.514</td>
<td>4.836</td>
<td>3.443</td>
<td>3.927</td>
</tr>
</tbody>
</table>

Note. All intercepts were statistically significant at the .05 alpha level.

On the other hand, review of the latent scores pertinent to exhibiting the overall characteristic of character suggests that students in the Florida school districts were much more consistent in responding across the four scales than the students in Kenya. This is evident by the stronger lambda paths between the manifest variables and latent variables. The higher degree of consistency has the effect of making Florida students achieve higher latent scores, so that, in terms of their overall assessment of the character of their schools, Florida students, ironically, rated their school higher than the students in Kenya. The students in Kenya have rated their scales in a way that is less consistent across scales suggesting that overall they tended to see the content of the scales as addressing more distinct factors. For this reason, their Alpha intercept score is lower than the latent intercept scores attained by students in the Florida school districts. Review of the mean latent scores across groups confronts our interpreting the results with the problem of the relative metric of the latent scale. This motivated us to set the Kenyan latent mean to zero, so that standardized effect sizes could be calculated. Observe that the latent

Table 7. Mean Structure Analysis Results for One Factor Model Across All Groups

Minimum fit function chi-square ($df = 16$) = 10.465, $p = 0.841$
Chi-square for independence model with 30 degrees of freedom = 3529.960
RMSEA = 0.0
90% confidence interval for RMSEA = (0.0 ; 0.0249)
CFI = 1.000

Note. RMSEA = Root Mean Square Error of Approximation; CFI = Comparative Fit Index.
intercepts for the Florida schools are higher than zero. This suggests that Florida students are rating their schools higher in terms of the latent construct. The Florida students tend to see a connection across the scales that the Kenyan students do not. Specifically, students assessed in the northeast Florida school district rated their schools, on average, 1.022 standard deviations higher than students in Kenya with respect to the latent factor concerning the perceive degree of character evidenced in the schools. Similarly, students assessed in the northeast Florida school district rated their schools, on average, 1.052 standard deviations higher than students in Kenya with respect to the latent factor concerning the perceive degree of character evidenced in the schools. Moreover, students assessed in the northeast Florida school district rated their schools, on average, 0.757 standard deviations higher than students in Kenya with respect to the latent factor concerning the perceive degree of character evidenced in the schools. Students assessed in the northeast Florida school district rated their schools, on average, 0.754 standard deviations higher than students in Kenya with respect to the latent factor concerning the perceive degree of character evidenced in the schools.

The results suggest that although students at a school in Kenya rated their school higher on the four scales, overall the latent scores for students across the Florida school districts were higher. Statistically, this means that although students at the Kenyan school rate their schools higher, the correlations among their ratings on the four scales were lower. So the students from Kenyan tended to not view the four scales as speaking to the same overall governing construct.

This suggests that the CHARACTERplus character education measure may be cultural biased to some extent because it reveals that students in Kenya tend not to perceive the four constructs (Kindness and Caring, Respect and Responsibility, Fairness and Honesty, and School Expectations) as addressing a yet higher construct. Thus, with respect to the underlying construct of character, Florida student construct scores are higher despite their ratings of schools are lower. The Kenyan students do not appear to see these four constructs as the larger issue of character. Prior research comparing Kenyan and U.S. students reveals that sometimes measures have to be adapted to accommodate issues of cross-cultural understanding (Biswas-Diener, 2006; Johnson & Miller, 2002).

Perhaps due to Kenyan students’ unique background, Kenyan students’ cultural understanding of these four constructs tends to guide Kenyan students to see the four core issues otherwise intended to pertain to character education measures as addressing separate issues. Based on these results, it is concluded that the results from the Florida schools do not completely generalize to the student body in Kenya because of the Kenyan students’ multifaceted viewpoint of the constructs on the scale. On the other hand, a comparison of the Florida schools with one another indicates students in Florida schools had similar conceptions of character education. The Floridian student responses to one scale were much more alike their responses to other scales leading to overall higher correlations among the scales despite regional differences.

**PRACTICAL IMPLICATIONS**

Character education remains a priority both in educational research and practice. Yet, very little research exists concerning how character education may be measured (Snyder, 2014). The development of the CHARACTERplus character education measure is designed to answer this need. Now, it is important to understand whether the measure is useful across diverse populations. It is especially important for school psychologists to receive guidance regarding such matters as a core aspect of their training sensitizes them to consider whether assessments they use in practice are fair and appropriate for diverse groups.

This study examined the cross-cultural utility of the CHARACTERplus character education measure. Specific to the scale, we found evidence that the measure does not perform the same way for students of different cultures. More generally, these findings underscore the importance of not assuming such scales...
will be understood by students of different cultures in the same way. Thus, school psychologists and educators who use character education measures should be mindful of whether evidence exists to suggest a scale functions similarly for diverse populations before interpreting the assessment results with confidence.

The aim of creating a valid character education measure remains an important concern for the advancement of moral development in the schools. Schools are vital to the formation of development of students. Thus, understanding student moral development via the use of character education measures has important implications for promoting a civilized student population with a morally sound foundation.

LIMITATIONS AND FUTURE RESEARCH

The aim of this study was to address how character education may be measured, with a special focus on the cross-cultural applicability of a much needed measure. One limitation of this study concerns the fact that only Florida schools in the United States are compared to the school in Kenya. It is quite possible that cross-cultural outcomes would have been more similar had a different region of the United States been used in the study. Of course, the same could be said about the Kenyan school. It is possible that the results would vary dependent upon which Kenyan schools were used in the study. One factor that buffers against the broad concern of the nesting of school within culture is the high degree of consistency across students in the four Florida school districts.

As with many such studies, opportunities for random selection of participants are scarce, so sampling bias may be another limiting factor of concern. Nonrandom samples are typical in large-scale research, especially in quasi-experimental studies, so replication is important before findings are considered more or less definitive.

Future research should be designed to augment the current findings in various ways. Research is needed to determine whether various regions across the United States are comparable. Moreover, cross-cultural research is needed to examine whether the findings in Kenya are replicated in other similar geographic locations. The focus of this study was on cross-cultural generalizability, but even if we were to limit the use of the scale to the United States, several other kinds of validity studies are needed, especially external structure evidence (predictive validity).

CONCLUSION

Cross cultural investigations offer an important insight in the validity of assessments, specifically generalization evidence (Sivo, Saunders, Chang, & Jiang, 2006). Given that a credible character education measure is needed in the schools (Snyder, 2014), conducting a generalization evidence study to determine the utility of a proposed character education measure is valuable for the field both in terms of research and practice. Just as Johnson and Miller (2002) found the need to adapt their scale to Kenyan students due to cultural differences between them and U.S. students, the proposed character education measure in this study was found to be susceptible to cultural differences too. It is important to ensure conclusions we draw about students are representative and fair. For this reason, cross cultural investigations into the use of measures intended for students with different cultural backgrounds is critical.

REFERENCES


