Negotiating Identity: A Pilot Study on Cultural Identity, Belonging, and College Student Retention

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This study introduces the Cultural Responsivity Index (CRI), a quantitative instrument designed to measure, from students' perspectives, the cultural responsivity of their experiences and interactions within the academic, social, and financial systems of their college campus. The CRI was developed based on literature that posits culturally diverse college students struggle to develop a sense of belonging and are thus retained at lower rates than their peers because institutions lack appropriate degrees of cultural responsivity. Findings could help practitioners begin to extrapolate potential implications of enhancing collegiate environments to be more responsive to the cultural identities of the students they serve.

Numerous theories have emerged in the past century attempting to explain college student retention[1] and remedy causes for students' premature voluntary or involuntary departure from higher education institutions (HEI). Of the numerous factors noted by retention pundits, a student's sense of belonging at a HEI – defined as a "students' subjective feelings of connection and integration with their institution and campus community" – is widely considered an accurate indicator of attrition (Pedler et al., 2022, p. 398). Students who struggle to develop a sense of belonging at a HEI are predicted to be less likely to remain enrolled at that institution (Bean, 1980; Burke, 2019; Kamens, 1971; Spady, 1971; Strayhorn, 2019; Tinto, 2006). The developmental process of belonging at a HEI should not be conceptualized exclusively as an uncontrolled occurrence that naturally does or does not materialize. In fact, many retention theorists and practitioners believe it to be more of a deliberate, systematic developmental process based on positive experiences and interactions that students have within the academic, social, and financial systems that traditionally make up the collegiate environment (Braxton et al., 2007; O'Keeffe, 2013; Tinto, 1990, 2006). In the present context, students' experiences within the academic system consist of coursework, academic advising, curricular and co-curricular involvement and engagement with academic resources, and engagement with scholarly events activities (Bean, 1980; Burke, 2019; Kamens, 1971; Millea et al., 2018; Spady, 1971; Tinto, 1975, 2006). Similarly, students' experiences within the social systems often consist of formal and informal social exchanges between students, student clubs and organizations, on-campus and off-campus living arrangements and experiences, and student life resources. Lastly, students' experiences within the financial systems consist of engagement with financial aid infrastructure, financial education and literacy programming, and financial stressors experienced by college students (Britt et al., 2017; Burke, 2019).

The theoretical relationship between college student retention and a sense of belonging has grounded the designs of many contemporary retention programs and initiatives on campuses. Still, national retention rates in the U.S. have remained relatively static and underwhelming, especially among historically underrepresented and marginalized student groups (National et al. Center, 2022). National data shows consistently lower annual retention rates of some minority and/or historically

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[1] Defined as the continued enrollment (or degree completion) within the same higher education institution (HEI) in the fall semester of the student's first and second year (National Student Clearinghouse Research Center, 2019)

minoritized[2]— henceforth referred to as non-dominant cultural[3]—student groups including racially and ethnically minority/minoritized students, first-generation students, low-income students, LGBT+ students, and students with disabilities when compared to their culturally dominant peers (D'Amico & Dika, 2013; National Center for Educational Statistics, 2019; National Student Clearinghouse Research Center, 2022; Postsecondary National Policy Institute, 2020). Interestingly, the same non-dominant cultural groups that have consistently reported lower annual retention rates have also historically struggled to develop a sense of belonging at HEIs in the U.S. (Strayhorn, 2019; Vanccaro & Newman, 2016).

The concurrent phenomena of non-dominant cultural student groups being retained at lower rates and struggling to develop a sense of belonging on campuses raise the question of whether U.S. HEIs are appropriately designed to respond to their students' diverse cultural identities, needs, and perspectives. Suppose the systems of which a collegiate environment is composed are not culturally responsive and instead primarily designed to meet the needs and dominant cultural perspectives of White (non-Hispanic), cis-heterosexual male, affluent, able-bodied students whose parents went to college. In that case, it can be expected that non-dominant cultural students would experience feelings of alienation and devaluation, thus inhibiting their development a sense of belonging at U.S. HEIs. Such a presumption would echo elements of Cultural Identity Theory (CIT) which suggests that individuals and groups placed in cultural settings unakin to their own are more susceptible to feelings of alienation, disconnection, and devaluation. It can then be further theorized that cultivating culturally responsive academic, social, and financial systems on U.S. campuses could decrease feelings of alienation and devaluation among non-dominant cultural student groups, aiding in their development of a sense of belonging and thus improving their likelihood of being retained by a HEI.

However, conceptualizing obstructions to belonging amongst non-dominant cultural student groups as structural and cultural inflexibilities within collegiate environments (i.e., institutional deficiencies) confronts enduring views that obstructions to

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[2] The use of the terms minority and minoritized groups is intended to indicate that although some cultural groups listed above might have recently achieved a demographic majority in higher education, the historical discrimination and marginalization of those same groups have persisted in ways that can cause the potential impact of a numerical majority to be minimized within those students' experiences and interactions on campus (Choi et al., 2021; Lewis & Shah, 2021; Snidman et al., 2022).

[3] In the context of this study, culture and cultural identity are defined as shared knowledge, experiences, underlying assumptions, and core beliefs/practices attached to visible and invisible cultural and social characteristics across groups and individuals within those groups (Yates & Oliveira, 2016; Hernandez & Gibb, 2019; Moreland-Capui, 2019).

belonging result mostly from students' inabilities to assimilate to college (i.e., student deficiencies). Such contentions echo those of Hurtado and Carter (1997) as well as Johnson and colleagues (2007), who posited that conceptualizing belonging as a responsibility of the student – particularly racially and ethnically diverse students – lets HEIs "off the hook" and ignores the historic inflexibilities of HEI which potentially curb feelings of connection and integration with campus communities among non-dominant cultural student groups. Further, the enduring inflexibility of HEIs concurrent with consistently underwhelming outcomes among non-dominant cultural student groups (e.g., retention rates and belonging data) potentially signal HEIs' inabilities to objectively assess their supportive practices of culturally diverse student groups as well as tendencies to diminish students' agency in fostering culturally responsive campus environments.

The present study is rooted in this paradigmatic shift away from student assimilation toward institutional adjustment, repositioning student voice and perspective at the center of retention and belonging theorization and praxis (Hurtado & Carter, 1997; Johnson et al., 2007). Further, this study aims to advance the scholarship of belonging in U.S. collegiate environments amongst non-dominant cultural groups by expanding the scope of diverse perspectives beyond race and ethnicity to include voices of first-generation college students, low-income students, LGBT+ students, and students with disabilities.

Thus, the purpose of this study is two-fold: (a) to introduce and pilot (i.e., conduct reliability and validity analysis on) the Cultural Responsivity Index (CRI), a quantitative data collection instrument designed to measure, from students' perspectives, the cultural responsivity of their experiences and interactions within the academic, social, and financial of a college campus; and (b) to begin extrapolating the potential impact and implications of using the CRI in future research and praxis toward enhancing U.S. college campuses to be more responsive to and supportive of culturally diverse student populations. Using the CRI, the researcher plans to answer the research question of whether there is a significant relationship between students' cultural diversity and their reporting of culturally responsive experiences and interactions in each of the three systems. The null hypothesis for significance is that there is no relationship between students' cultural diversity and their reporting of culturally responsive experiences and interactions in each of the three systems. The alternative hypothesis, which the researchers predict will be true, is that there is a relationship between students' cultural diversity and their reporting of culturally responsive experiences and interactions in each of the three systems.

$H_0: \rho = 0$
$H_1: \rho \neq 0$

The CRI is a survey instrument that invites college student participants to rate on a Likert scale (1-5) the degree to which they believe their experiences and interactions within the academic, social, and financial collegiate systems are responsive to their self-reported cultural identities. Data on students' cultural identities and Likert scale ratings are then analyzed by computing the Pearson Correlation Coefficient (r) to measure the direction (+/-) and significance of a correlation (p=.05) between non-cultural identities and students' rating of responsive interactions and experiences within each system. Data generated for this study via CRI will be analyzed by applying CIT, theoretically linking participants' ratings of cultural responsivity to possible feelings of alienation and lack of belonging on college campuses. Findings for this study could contribute to the literature on college student retention theory and sense of belonging and provide grounds for additional examination on ways that culturally responsive practices in higher education might help improve the retention of culturally diverse students.

In the following section, the authors will outline the existing literature that ties the three systems of a collegiate environment to non-dominant cultural student retention and belonging. Additionally, the authors will explain the ways that core tenets of CIT were applied in the data collection and analysis process of this study. Following the results and discussion, implications for future research on the relationship between students' cultural identities and belonging, as well as the intended next steps toward mixed methodological research on this phenomenon using the CRI, will be discussed in the conclusion.

Literature

**THREE SYSTEMS OF COLLEGE STUDENT RETENTION:
ACADEMIC, SOCIAL, AND FINANCIAL**
In the late 1900s, notable retention researchers such as Spady (1971), Kamens (1971), Tinto (1975), and Bean (1980) theorized that student attrition was a result of students' insufficient integration into the academic and social systems which make up collegiate learning environments. Furthermore, students' experiences and interactions in both the academic and social systems of college were believed to be determinants in students' development of a commitment to and affinity for an institution, influencing their decision to return for a consecutive year of enrollment. Spady (1971) tested a previously synthesized theoretical model for student attrition to more clearly define the most impactful factors within the academic and social systems of college that influence whether a student drops out of college. Using multiple regression analysis, Spady aimed to understand the longitudinal individual

and clustered impact of the following factors on student attrition: a.) friendships that students formed while enrolled; b.) the formal and informal support they received on campus; c.) their intellectual development and grade performance; d.) their social integration within the collegiate environment; e.) satisfaction with the institution; and f.) institutional commitment or degree of loyalty to the institution (Spady, 1971; Bean, 1980). Spady also acknowledged that students' family background (i.e., socioeconomic, racial/ethnic, and religious background) might influence their experiences with and navigation of each of the aforementioned factors. Of the factors analyzed, academic achievement – associated with intellectual development and grade performance – was found to be heavily determinant in male student attrition and institutional commitment for female students. The factors that Spady found to be central to retaining a student highlighted well the academic and social systems that students must successfully navigate in order to successfully assimilate to the collegiate environment and build an affinity toward the institution at which they have enrolled. Though Spady acknowledged ways that students' cultural identities (i.e., socioeconomic background, gender identity, and racial/ethnic identity) might influence their successful integration within collegiate environments, there is a lack of an in-depth analysis of the ways that cultural identities influence students' experiences and interactions within academic and social systems, how those systems might lack cultural responsiveness to students' identities, and in lacking cultural responsiveness those systems might contribute students lack of belonging at an institution.

Similar to Spady, Kamens (1971) emphasized points of affinity between the student and the institution as paramount to a student's decision to return to the institution, presenting the theoretical notion that institutional size is implicative of an institution's capacity to build institutional commitment (i.e., the larger the institution, the greater the capacity to offer academic programming and resources to students to ensure success while enrolled and post-enrollment). Kamens (1971) described the relationship between the student and institution as a marriage, emphasizing the need for mutual reciprocity and compatibility between students' social and career interests and institutional academic and social programs. Kamens' examination of the student-institution relationship omitted exploration of students' cultural identities and institutional environment – aside from gender identity – focusing mostly on the alignment of institutional resources and academic programs with students' career and life interests.

Tinto's (1975) earliest work on college student retention mirrored both Spady's and Kamens' theories, depicting collegiate environments as a collection of academic and social systems through which students navigate. Tinto, however, focused more on students' interactions in each of these two systems. Tinto theorized that

students' longitudinal interactions within a college's academic and social systems induce changes in students' goals and institutional commitment. Furthermore, Tinto acknowledged that students' pre-college schooling, family background, and individual attributes contributed to the goals and institutional commitment developed by students prior to their interactions within the academic and social systems of college (Tinto, 1975). Bean (1980) followed both Tinto's (1975) and Spady's (1971) longitudinal process of student attrition by using a causal model to examine the ways in which students' background influences their interactions within the academic and social systems of college, which in turn impact their institutional satisfaction and commitment and decision to drop out.

In the historical context of Spady's, Kamens', Tinto's, and Bean's theories, as well as how they are contemporarily understood and applied, the academic and social systems of higher education are typically comprised of the structural and cultural norms that are interwoven in college students' academic and social experiences and interactions while enrolled (Burke, 2019). Accordingly, students' interactions within the academic systems of higher education, which are often associated with performance and achievement metrics (GPA, grades, academic honors, etc.), typically involve coursework and course planning (e.g., academic advising), curricular and co-curricular involvement and engagement with academic resources, and engagement with scholarly events activities (Bean, 1980; Burke, 2019; Kamens, 1971; Spady, 1971; Tinto, 1975, 2006). Comparatively, students' interactions within the social systems of higher education are often associated with experiences on campus which impact their "attitudes, interests, and personality dispositions" (Burke, 2019, p. 14). Such interactions typically involve formal and informal social exchanges between students, student clubs and organizations, on-campus and off-campus living arrangements and experiences, and student life resources (Bean, 1980; Burke, 2019: Kamens, 1971; Spady, 1971; Tinto, 1975, 2006).

Although the foundational retention theories above, which acknowledged students' interactions within academic and social systems as major attrition factors, have endured generations of college students, contemporary researchers have recommended some notable theoretical and practical enhancements. Of them, arguably one of the most impactful has been the incorporation of a student's experiences within financial systems – in addition to those within academic and social systems – as yet another major factor in whether students leave an institution before beginning their second consecutive year of enrollment (Britt et al., 2017; D'Amico & Dika, 2013; Millea et al., 2018). Similar to the academic and social systems described by foundational retention theorists, financial systems can be broadly defined and typically comprised of the structural and cultural norms that are interwoven in students' financial experiences and interactions while enrolled. Accordingly, students'

interactions within the financial systems of higher education typically involve financial aid infrastructure, financial education and literacy programming, and financial stressors experienced by college students (Britt et al., 2017; Millea et al., 2018).

THREE SYSTEMS OF COLLEGE STUDENT RETENTION & SENSE OF BELONGING
A common thematic thread woven through the empirical findings and theoretical syntheses presented by early researchers of college student retention reviewed in the previous section relates to students' development of institutional commitment – or an affinity for and loyalty to the institution – as a major determinant in whether students choose to return for a consecutive year of enrollment. The development of institutional commitment, according to foundational retention researchers and theorists, is a process that hinges upon students' academic (grade performance, academic achievement, academic support, and intellectual development), social (friendships developed on-campus, formal and informal social exchanges, student clubs and organizations, and residence life experiences) and financial (financial aid infrastructure, financial education, and financial literacy programming) experiences at an institution (Bean, 1980; Britt et al., 2017; Burke, 2019; Kamens, 1971; Millea et al., 2018; Spady, 1971; Tinto, 1975, 2006).

As previously stated, students' experiences within the academic, social, and financial systems of the collegiate environment have also been found to be influential in their development of a sense of belonging at a college or university. Contemporary academic, student, and financial affairs scholars and practitioners widely view sense of belonging as a significant overarching factor in whether a student is successfully retained by an institution (Davis et al., 2019; O'Keeffe, 2013; Tinto, 1990). Tinto (1990), one of the first college student retention scholars to identify students' development of a sense of belonging at an institution as a major predictor of student attrition, explained that colleges are social and intellectual communities in which students must successfully integrate as active members. According to Tinto, this integrative process happens through students' continuous, substantive, positive interactions between faculty, staff, and other students. Students form a close membership with an institution in both academic and non-academic social settings, effectively reinforcing their alignment and/or loyalty to institutional identity and values. Further, while programmatic interactions with campus community members formulated through peer mentor programs and curricular and co-curricular activities help to shape students' sense of belonging, Tino explained that the most influential are frequent, informal interactions that students have with faculty.

Echoing Tinto's findings on sense of belonging and retention, Okeeffe (2013) underscored the importance of students feeling "cared for" by the institution at

which they enrolled, the student-faculty relationship, and the support services provided to students by the institution in their development of belonging. Okeeffe (2013) further explained that disruptions in students' experiences and interactions within the academic and social systems of college often serve as disconnectors between the student and institution, citing part-time enrollment, part-time employment, family responsibilities, and virtual learning as factors that either literally or figuratively separate students from essential interactions in college. Okeeffe (2013) also acknowledged the aforementioned factors disproportionally impact students who are members of racial/ethnic minority and minoritized groups, academically disadvantaged, who identify as having a disability, and students from low socioeconomic backgrounds. Further emphasizing the importance of students' experiences and interactions within the academic and social systems of college, Davis and colleagues (2019) developed a Sense of Belonging index to help measure students' senses of academic and social belonging at key transitional periods across their academic, social, and financial interactions and experiences in college. By surveying 218 students on how they'd rate their belonging on a scale of 1-7 across 22 academic, social, and financial factors, Davis and colleagues were able to conclude that, indeed, students' experiences and interactions within the academic, social, and financial systems were influential in students' development of their senses of academic and social belonging, and thus, important retention factors (Davis et al., 2013).

The inclusion of students' experiences and interactions within financial systems, though a relatively newer consideration by retention scholars, has emerged as a widely accepted influential attrition factor among contemporary researchers and practitioners (Britt et al., 2017; Olbrecht et al., 2016). As previously explained, the financial systems of higher education typically involve financial aid infrastructure, financial education and literacy programming, and common financial stressors experienced by college students (Britt et al., 2017; Millea et al., 2018; Olbrecht et al., 2016). Britt and colleagues found that financial stressors associated with paying college tuition and housing costs, college-related expenses, and student loan debt contribute to the decreased likelihood of a student returning to an institution for a second consecutive year. Further, Britt et al. (2017) explained that meaningful interactions with a financial counselor or financial aid representative while enrolled could help alleviate some of the financial stressors, which can also distract students from academic and social engagement opportunities. The notion that negative experiences and interactions within the financial systems of college could lead to negative experiences and interactions within the academic and social systems of college echoes the previously reviewed theoretical intersection of student experience and attrition and reinforces the suggestion that financial systems are equally influential in students' development of a sense of belonging.

BELONGING AND CULTURALLY DIVERSE STUDENT GROUPS

Studies have shown that students of color experience discrimination, institutionalized bias and racism, and marginalization while attending predominantly white HEIs, hindering their development of a sense of belonging (Foxx, 2021; Gopalan & Brady, 2019; Hussain & Jones, 2021; Strayhorn, 2019; Vanccaro & Newman, 2016). Similarly, first-generation students report lower feelings of belonging at U.S. four-year HEIs than their continuing-generation peers (Gopalan & Brady, 2019). Continuing in a qualitative study, Nguyen & Herron (2021) explained that the financial positioning of low-income students impacts their development of a sense of belonging at U.S. HEI, alluding to a common environmental culture of affluence and spending on college campuses in which they cannot fully participate. First-year students who identify as members of the LGBTQ+ community have also struggled to develop a sense of belonging on U.S. college campuses due to campus cultures that are unwelcoming to non-cisgender, non-heterosexual groups (Vanccaro & Newman, 2016). Similarly, students who identify as a persons with a visible or invisible disability have described challenges with fitting in and feeling safe and valued as members of U.S. campus communities (Vanccaro & Newman, 2016).

Pundits in the field often explain the adverse relationship between cultural identity and belonging in U.S. higher education as being the culmination of structural and/or cultural clashes between students' characteristics – associated with their identities – and the traditional U.S. collegiate environment (Foxx, 2021; Gopalan & Brady, 2019; Hussain & Jones, 2021; Strayhorn, 2019; Vanccaro & Newman, 2016). Furthermore, this relationship is often described through an individualistic ideological lens, with particular emphasis placed on students' inabilities to overcome or lack of self-efficacy toward overcoming characteristics and/or perspectives that are often derived from their social and cultural background which misalign with the social, cultural, and structural norms typical of a U.S. collegiate environment. However, an issue with a description of the relationship between cultural identity and belonging that is rooted in student-deficit interpretive lenses is that it places much of the onus of belonging on students rather than HEIs. This perspective narrows the recommendations and implications of research to address the actions and behaviors of students rather than those of HEIs.

This study addressed this gap in the literature, offering a paradigmatic shift in how the relationship between cultural identity and belonging in U.S. higher education is explained, placing the onus on HEIs to be more responsive to the cultural perspectives and characteristics of diverse student groups. This approach rejects interpretations of cultural differences within culturally homogenous collegiate environments as student deficits that inhibit their development of belonging at an HEI. The CRI is intended to aid in the progression of discourse related to college student retention, cultural

identity, and belonging away from being exclusively situated in student-deficit talk and more toward institutional reform and adjustment. Described more in-depth in the following sections, the CRI is a survey instrument – conceptually derived from the *double-check model* for cultural responsivity - which measures the degree of cultural responsivity within the academic, social, and financial systems of a college campus from the student perspective (Hershfeldt et al., 2009). The quantitative data collected using the CRI will be analyzed and interpreted through the theoretical lens presented by CIT, underscoring implications for the developmental process of belonging amongst non-dominant cultural student groups.

Theoretical Framework: Cultural Identity Theory (CIT)

Collier and Thomas (1988) explained that CIT describes the "enactment or negotiation" of traditions, norms, and perspectives shared by members of like cultural groups (Chen & Collier, 2012 NEEDS PAGE NUMBER). In Collier and Thomas' description, the term enactment is used to refer to any number of behavioral and/or intellectual actions, "properties and processes" of cultural identity enactment (Chen & Collier, 2012 NEEDS PAGE NUMBER). Negotiation, on the contrary, might take place when members of cultural identity are placed in cultural environments unakin to their own, causing them to experience feelings of alienation and/or compromise properties of their identity to compensate for cultural differences (Banerjee et al., 2021). The delineation between enacting and negotiating cultural identity is important to consider, specifically in the context of this study, because each term denotes either potential actions that might indicate a developed or developing sense of belonging or actions that might diminish a sense of belonging and increase feelings of alienation.

The current study was conducted with the view that U.S HEIs can be culturally homogenous environments, both culturally and structurally operated according to the traditionally dominant needs, perspectives, and values of White, male, affluent, heterosexual, able-bodied individuals whose parents completed traditional four-year college degrees (Byrd, 2019; Iverson, 2012). Such a conceptualization then implies that students with cultural identities that are different from those aforementioned traditionally dominant identities have been placed in a cultural environment unakin to their own. Based on the principles of CIT, these culturally diverse students are more likely to experience cultural negotiation (i.e., alienation and/or the need to compromise properties of their identity to compensate for cultural difference) and are thus less likely to develop a sense of belonging at a culturally homogenous institution, and less likely to return to that institution. As such, the author will apply CIT in their analysis and interpretation of the collected data on culturally diverse students' experiences navigating the collegiate environment's academic, social, and financial systems.

Methods

RECRUITMENT

The population from which student participants for this pilot study were recruited was limited to first-time, first-year, first-semester college students enrolled full-time (at least 12 credit hours of coursework) at any small (0-2,999 undergraduate enrollment), medium (3,000-9,999 undergraduate enrollment), and large (10,000+ undergraduate enrollment) private and public, primarily residential (at least 25% of students living in on-campus or university-owned housing), nonprofit four-year college/university in the state of Indiana. Student population parameters were set to align with populations studied in previous like-research on college student retention and to address the research question most accurately for this study. The research team recruited student participants via email, requesting that senior-level student affairs administrators (Dean of Students, Registrar, etc.) at qualifying institutions – small undergraduate enrollment (n=16), medium undergraduate enrollment (n=5), and large undergraduate enrollment (n=4) in the state of Indiana. Colleges and universities in Indiana were selected for ease of recruitment and participation. Senior-level administrators at a total of 25 institutions (public, n=6 and private, n=19) were contacted via email and asked to distribute a cultural responsivity questionnaire on the researchers' behalf to qualifying students.

DATA COLLECTION: CRI

The researchers designed a Qualtrics questionnaire to measure the degree to which students perceived their interaction and experiences in each of the three systems of college – academic, social, and financial – to be responsive to their cultural identities. The questionnaire included a total range of 29 possible questions. The first portion of the questionnaire featured 10 questions, which collected demographic data on each participant by allowing students to self-identify with the cultural identities of race/ethnicity, gender, socioeconomic status, disability status, sexual orientation, and first-generation status. To simplify students' identification of socioeconomic status, they were asked if they were eligible for the federal Pell Grant. Eligibility for the Pell Grant is awarded to students who demonstrate high financial need toward their college education and is based on the annual family income. Students' annual family income is reported through tax transcripts required documents for filing the Free Application for Federal Student Aid. Additionally, it's worth clarifying that although cultural groups like cis-women and Asian students may make up a numerical majority on some campuses and are retained at higher rates than their counterparts, they have historically expressed feelings of alienation and marginalization in various aspects of their academic, social, and financial experiences at American HEIs (Choi et

al., 2021; Snidman et al., 2022). Due to their historically documented experiences of discrimination and challenges in developing a sense of belonging at U.S. HEIs, they are included in the classification as non-dominant cultural groups as a part of this study.

The second portion of the questionnaire prompted students to answer 14 questions (19 if they were living on-campus or in campus-owned housing), rating on a Likert scale from 1-5 the degree to which they believed their experiences and interactions within the academic (5 questions), social (5 questions, 9 if living in on-campus or university-owned housing), and financial (4 questions) were responsive to one or more of their cultural identities (see Appendix A for questionnaire). The questions were written using the *double-check model* for culturally responsive pedagogy as a framework and prompted students to reflect on and rate the ways that their common interactions and experiences within the three systems were culturally responsive and demonstrated an awareness of cultural sensitivities or insensitivities through five core components: (a) contextual reflective thinking of one's cultural identities; (b) forming authentic relationships with students; (c) effective communication across cultural differences; (d) culturally-related connection to curriculum; and (e) sensitivity to students' cultural and situational messages (Hershfeldt et al., 2009). The author elected to use the double-check model as a framework for the questionnaire because the model is designed to help individuals engage in a reflective exercise toward identifying tensions between educational environments and the cultural identities of those in said environment.

CRI Reliability Analysis: Cronbach's Alpha

Reliability analysis was conducted on the CRI using Cronbach's alpha to ensure the quality of the survey instrument, internal consistency between items within the survey, and precision of what exactly was being measured. Cronbach's alpha is a commonly used calculation that analyzes the reliability of a survey instrument (oftentimes one that uses the Likert scale) by dividing the average covariance between survey items by the total covariance, essentially measuring consistency across survey items and responses. The range of possible alpha values is from 0 (no correlation between items) to 1 (perfect correlation between items), with an alpha value of .7 or greater widely accepted as an indicator of sufficient reliability. Using SPSS to run Cronbach's alpha reliability analysis, the researchers analyzed the survey items included in the CRI within each system assessed (academic, social, and financial) and the entire instrument. The alpha values for survey items related to student's academic, social, and financial experiences were $a = .92$, $a = .916$, and $a = .979$, respectively, indicating high reliability across all portions of the CRI survey. The alpha value for the entire CRI survey was $a = .967$, again indicating high reliability across all survey items.

DATA ANALYSIS

A total of 26 students completed the questionnaire on cultural responsiveness. Table 1 shows the demographic distribution of all 26 participants across the 6 cultural identities included in this study. All demographic data and answers were de-identified, and each participant was randomly assigned a participant identification number 1-26. If students self-reported identifying as members of any minority and/or minoritized group within each demographic category (i.e., non-White, non-cis heterosexual male, disabled, a first-generation college student, and/or low-income), the researchers noted it on their participant record.

Additionally, the quantity of minority and/or minoritized groups (0-5) with which a participant identified was added up and noted on participants' records to signify the intersectionality of cultural identities. Table 2 shows the quantity distribution across the number of cultural identities with which students identified. This allowed the researchers to quantify the cultural identities of participants and measure participants' mean Likert ratings of cultural responsiveness within a particular demographic grouping as well as any potential relationships between intersectional cultural diversity (i.e., belonging to more than 1 culturally diverse group) and Likert ratings of cultural responsiveness.

Table 1
Participant Demographics

Cultural Group	Dominant Group	Non-Dominant Group
Race/Ethnicity		
White (non-Hispanic)	15	
White (Hispanic)		3
Asian (East or South)		2
Latino/Hispanic		2
Black/A.A. (non-Hispanic)		1
Multiracial/Multiethnic		3
Gender Identity		
Male	7	
Female		18
Transgender Male		1
Generational Status		
Continuing generation	10	
First Generation		16

Table 1 continued

Cultural Group	Dominant Group	Non-Dominant Group
Sexual Orientation[a]		
Cisgender Heterosexual		14
Non-heterosexual		11
Socioeconomic Status		
Pell Grant Ineligible	14	
Pell Eligible		12
Cultural Group		Dominant Group
Non-Dominant Group		
Disability Status[b]		
Able-bodied	21	
Disabled		2

Note. Table shows the demographic distribution of all 26 participants across the 6 cultural identities.

[a]Participants (n=1) chose to not self-identify

[b]Participants (n=3) chose to not self-identify

Table 2

Distribution of Students' Cultural Identities Self-identification

# of Minoritized/Minority CI	Corresponding # of Students
1	4
2	7
3	8
4	4
5	3

Pearson Correlation Coefficient

The mean of each participant's ratings for each question related to their experiences and interaction within each system was calculated to produce an individual Identity Responsivity Rating (IRR) on a scale of 1-5 for each system. For example, Participant 1's rating responses to each of the 5 questions related to their experiences and interactions within the academic system were averaged to produce an overall rating (IRR) for that particular system. Each participant's IRRs were then averaged within each of the three systems and grouped according to the quantity of self-reported non-dominant cultural identities (i.e., IRRs of those who self-identified as a member of 1 non-dominant cultural

group were grouped together). A Pearson's Correlation Coefficient formula was used to determine whether there was a significant relationship (*r*) between the quantities of cultural identities with which a participant identified and their IRRs in each system, with the significance set at .05 (p=.05). Employing this statistical analysis of participants' IRRs allowed the researchers to examine whether students with one or more intersecting non-dominant cultural identities were more likely to rate their experiences and interactions in the three systems of college to be less culturally responsive than their more culturally dominant peers.

Findings

The majority of non-dominant cultural groups (race/ethnicity, gender identity, disability status, and sexual orientation) reported lower IRRs on average for each system – academic, social, and financial – with a few exceptions. First-generation students rated their experiences higher than their continuing-generation peers in all three systems. Additionally, low-income students (i.e., Pell-eligible students) interestingly rated their experiences and interactions within financial systems higher than their more affluent peers. Perhaps this is a byproduct of campus programming within the financial systems that is often developed toward specifically serving and supporting low-income students (Phillips, 2024). A Pearson's Correlation Coefficient formula was used to determine whether there was a significant relationship (*r*) between the quantities of cultural identities with which a participant identified and their IRRs in each system, with the level of significance for a two-tailed test set at .05 (p=.05) and a degree of freedom of 26 (*df*=26). The null hypothesis for significance was that there is no relationship between students' cultural diversity and their reporting of culturally responsive experiences and interactions in each of the three systems. However, significant relationships between students' cultural diversity and their reporting of culturally responsive experiences and interactions were found within each system. The results for each test within each system are shown and explained below.

The relationship between the quantity of participants' cultural diversity and their IRRs within the academic systems was found to be significantly correlated (*r* = -.460), with p = .374, and the two were found to be negatively correlated (see Appendix B for graphed relationship). The relationship between participants' the quantity of participants' cultural diversity and their IRRs within the social systems was also found to be significantly correlated (*r* = -.476), with p = .374, and the two were found to be negatively correlated (see Appendix C for graphed relationship). Lastly, the relationship between participants' the quantity of participants' cultural diversity and their IRRs within the financial systems was found to be significantly correlated (*r* = -.495), with p = .374, and the two were found to be negatively correlated (see

Appendix D for graphed relationship). Therefore, the null hypothesis is rejected. Findings show that the two are negatively correlated.

Discussion

Culturally diverse students (i.e., students who hold membership with non-dominant cultural identities) have consistently notched lower retention rates than their culturally dominant peers and have expressed difficulties with developing a sense of belonging at the HEI at which they have enrolled. The development of a sense of belonging at an institution, though possibly an organic process, is viewed by many retention pundits to be a systematic process that occurs via students' formal and/or informal positive experiences and interactions within the academic (i.e., coursework, academic advising, curricular and co-curricular involvement and engagement with academic resources, and engagement with scholarly events activities), social (i.e., formal and informal social exchanges between students, student clubs and organizations, on-campus and off-campus living arrangements and experiences, and student life resources), and financial (i.e., financial aid infrastructure, financial education and literacy programming, and financial stressors experienced by college students) systems which make up the collegiate environment. It seems appropriate then to begin providing concrete answers for why culturally diverse students are retained at lower rates than their peers and recommendations toward addressing this challenge, to examine the experiences and interactions that culturally diverse students have within the academic, social, and financial systems of college toward developing a sense of belonging.

This study aimed to accomplish just that, theorizing that American HEIs operate, by default, to serve historically culturally dominant populations, limiting the experiences and interactions of culturally diverse students within the three systems of college and thus inhibiting their development of a sense of belonging. Participating students in this study rated on a Likert scale the degree to which they believed that their experiences and interactions within the three systems of college were responsive to their cultural identities, responding to prompts designed according to the *double-check model*, which encourages a reflective process of cultural (in)sensitivity. The researchers analyzed and interpreted the data from students' responses, applying CIT as a theoretical lens to connect students' low ratings of culturally responsive experiences and interactions to feelings of alienation and disconnect. The findings from this study begin providing evidence for reasons why culturally diverse students are retained at lower rates than their peers and struggle to develop a sense of belonging, possibly because their experiences and interactions within the academic, social, and financial systems of college lack cultural responsiveness which causes them to feel alienated and disconnected from the institution.

The student participants in this study self-identified as members of some historically dominant or non-dominant cultural groups. The cultural identities included in this study included race/ethnicity, gender, socioeconomic status, generational status, sexual orientation, and disability status. Students were able to identify with more than one cultural identity, as it helped to measure the relationship between cultural diversity and students' IRRs. As the findings demonstrated, the more non-dominant cultural identities with which students identified, the lower they rated their experiences and interactions within each system of college being responsive to their cultural identities. Culturally diverse students rated their experiences and interactions with the academic systems of college as the most culturally responsive (although not as responsive as their culturally dominant peers), followed by the social systems and financial systems. Experiences and interactions that lack cultural responsivity, according to CIT, can prevent culturally diverse students from enacting – engaging in cultural behavioral and/or intellectual processes and properties – their cultural identities, leaving them instead to negotiate their identities during such interactions. As previously explained, the negotiation of identity can lead to feelings of alienation, disconnect, and less value. If the principles of CIT remain true, then these findings suggest that the more non-dominant cultural identities with which a student identifies, the more likely they are to negotiate their identities and feel alienated and less valued within the three systems of college.

The rejection of the null hypothesis that there is no relationship between students' cultural diversity and their reporting of culturally responsive experiences and interactions in each of the three systems has implications for the retention of culturally diverse students because, as referenced throughout this manuscript, college student retention theorists and practitioners believe that a sense of belonging is in part systematically developed through students' positive experiences and interactions with the three systems of college. Though it cannot be completely assumed that feelings of alienation or being less valued generate negative experiences and interaction, one can suspect anecdotally that such emotions would not generate a particularly positive experience. It is possible that the experiences and interactions that students have within those three systems, which lack cultural responsivity, contribute to lower retention rates among culturally diverse students. To be clear, the researchers of this study are not suggesting that culturally responsive academic, social, and financial systems of college are the sole remedy to closing retention gaps among culturally diverse students. However, the findings of this study provide evidence that culturally responsive systems in higher education might aid in culturally diverse students' development of a sense of belonging at institutions and thus increase their likelihood of returning to that institution.

Conclusion

Though conducted as a pilot study to test the validity and reliability of the CRI, the findings present significant implications for future research on diverse cultural identities and cultural homogeny on college campuses. Findings demonstrated a significant relationship between students' cultural diversity and their reporting of culturally responsive experiences and interactions in each of the three systems, suggesting that reimagining students' experiences and interactions within the academic, social, and financial systems of college to be more responsive to their cultural identities could help close retention gaps among culturally diverse student groups.

There remain opportunities for future research on ways to make collegiate environments' academic, social, and financial systems more culturally responsive. Perhaps the CRI could aid in developing a rubric for redesigning and assessing the three systems for cultural responsiveness. Further, additional future research using the CRI might include adding phenomenological, ethnographic, or narrative qualitative research as a mixed methodological explanatory companion to the tool to examine and qualitatively exemplify the cultural tensions reported by students within the three systems of their collegiate environments. Another approach, which the authors intend to consider further, would include a triangulated design during which the CRI is used to collect data on students' experiences on a larger scale. Concurrently, researchers would also collect qualitative data (via private interviews or focus groups) on the cultural tensions – as reported via IRRs – experienced by participating students. Lastly, although this study provided quantitative evidence that there exists a significant relationship between first-year college students' cultural diversity and the degree to which they report culturally responsive experiences and interactions on campus, it did not measure variance between cultural identity groups. Doing so could potentially reveal whether some non-dominant cultural groups felt their interactions were less culturally responsive than their culturally diverse peers.

CHALLENGES POSED BY ANTI-DEI LEGISLATION

While the utilization of tools like the CRI and the instillation of culturally responsive policies and practices could lead to significant improvements to the experiences of culturally diverse college students, there remain challenges to this work. As HEIs take more steps away from explicitly stated and/or implemented diversity and inclusion policies and practices in response to the Supreme Court's decision to overturn race-based admissions as well as the political climate, research and praxis using the CRI could serve as implicit yet effective alternatives for ensuring U.S. HEIs are inclusive, welcoming, and supportive environments for culturally diverse student populations.

Though not to diminish the importance of explicitly correcting cultural inflexibilities present in collegiate environments for the sole sake of those negatively affected, it could be helpful for these practitioners to, instead, approach their work through a lens of *student success universality*, i.e., restructuring the three systems toward universal inclusivity and accessibility rather than beneath the nominal umbrella of DEI. The political semantics over DEI work in education have pushed many practitioners to veil their efforts in similar ways, effectively operating within a "same work, different label" mindset. Doing so potentially allows for this extremely important work to advance despite prohibition.

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Appendix A
Cultural Responsiveness Survey

1. Do you identify as Hispanic or non-Hispanic?
    a. Hispanic (1)
    b. Non-Hispanic (2)
2. What is your race/ethnicity?
    a. White (1)
    b. Black or African American (2)
    c. Latino (4)
    d. Native American or Alaska Native (5)
    e. Native Hawaiian or Pacific Islander (6)
    f. Middle Eastern (non-white Caucasian) (7)
    g. Multiracial/Multiethnic (please clarify) (8)
    h. Not listed (please clarify) (9)
3. To which gender identity do you most identify?
    a. Male (1)
    b. Female (2)
    c. Transgender male (3)
    d. Transgender female (4)
    e. Gender variant/non-conforming (5)
    f. Prefer not to say (6)
    g. Not listed (please clarify) (7)
4. Have any of your parents/guardians completed a four year college degree?
    a. Yes (1)
    b. No (2)
5. Do you identify as heterosexual?
    a. Yes (1)
    b. No (2)
    c. Prefer not to say (3)
6. Are you currently receiving financial aid through the Pell Grant toward your college education?
    a. Yes (1)
    b. No (2)
7. Do you identify as a person with a disability?
    a. Yes (1)
    b. No (2)
    c. Prefer not to say (3)

Start of Block: Academic Experiences

8. For each of the following statements, please select the option that best describes your academic experiences in college. In the following statements, "cultural identities" refer to your (race/ethnicity, gender, socioeconomic background, first generation status, sexual orientation, and disability status). Never (1); Sometimes (2); About half the time (3);Most of the time (4); Always (5)

   a. I feel that my cultural identities are valued during class lectures and discussions over the material.
   b. I feel that my cultural identities are valued in required course readings, textbooks, and assignments.
   c. I feel that my professors and advisors are sensitive to how my cultural identities might influence my academic experiences.
   d. I feel that my professors and advisors work to communicate with me across any cultural differences during our interactions.
   e. I feel that my professors and advisors reflect on how their cultural perspectives might impact my overall academic experience.

Start of Block: Social Experiences

9. For each of the following statements, please select the option that best describes your social experiences in college. In the following statements, "cultural identities" refer to your (race/ethnicity, gender, socioeconomic background, first generation status, sexual orientation, and disability status). Never (1); Sometimes (2); About half the time (3);Most of the time (4); Always (5)

   a. I feel that my cultural identities are valued during non-academic campus events and activities?
   b. I feel that my cultural identities are valued in student clubs and/or organizations?
   c. I feel that Student Life staff are sensitive to how my cultural identities might influence my social experiences on campus.
   d. I feel that Student Life staff work to communicate with me across any cultural differences during our interactions.
   e. I feel that Student Life staff reflect on how their cultural perspectives might impact how my social experiences on campus.

10. Do you live in campus housing (e.g. university-owned/managed residence halls, apartments, greek housing)?

    a. Yes (1)
    b. No (2)

    Display This Question:

If so, do you live in campus housing (e.g. university-owned/managed residence halls, apartments, greek h... = Yes

11. For each of the following statements, please select the option that best describes your experiences in university-owned/managed housing. In the following statements, "cultural identities" refer to your (race/ethnicity, gender, socioeconomic background, first generation status, sexual orientation, and disability status). Never (1); Sometimes (2); About half the time (3);Most of the time (4); Always (5)

    a. I feel that my cultural identities are valued at events or activities sponsored by my residence hall/university housing.
    b. I feel that the Residence Life staff (Hall Directors, R.A.s, etc.) are sensitive to how my cultural identities might influence my university living experiences.
    c. I feel that the Residence Life staff (Hall Directors, R.A.s, etc.) work to communicate with me across any cultural differences during our interactions.
    d. I feel that the Residence Life staff (Hall Directors, R.A.s, etc.) reflect on how their cultural perspectives might impact how my social experiences on campus.

Start of Block: Financial Experiences

12. For each of the following statements, please select the option that best describes your financial experiences in college. For this section the term "Financial Education Staff" will refer to those who work with the Office of Financial Aid and any financial wellness programming offered at your college/university. Never (1); Sometimes (2); About half the time (3); Most of the time (4); Always (5)

    a. I feel that my cultural identities are valued at Financial Education events and activities offered at my institution (e.g financial aid counseling, financial planning programming, etc.)

    b. I feel that the Financial Education staff are sensitive to how my cultural identities might influence my college financial experiences.

    c. I feel that the Financial Education staff work to communicate with me across any cultural differences during our interactions.

    d. I feel that the Financial Education staff reflect on how their cultural perspectives might impact how my financial experiences on campus
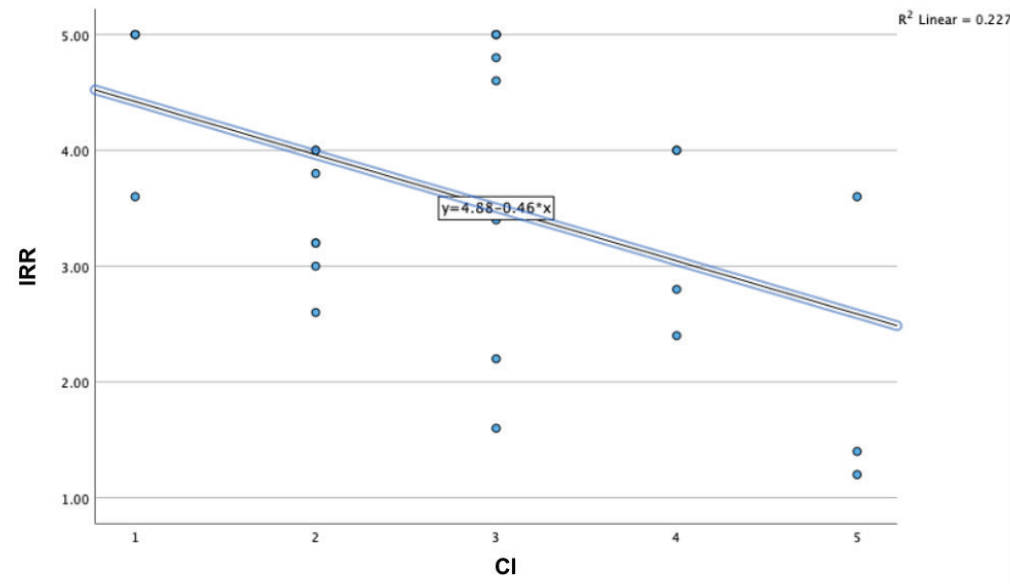
Appendix B

Relationship Between CI and IRR in Academic Systems

R^2 Linear = 0.211

$y = 4.74 - 0.47 \cdot x$
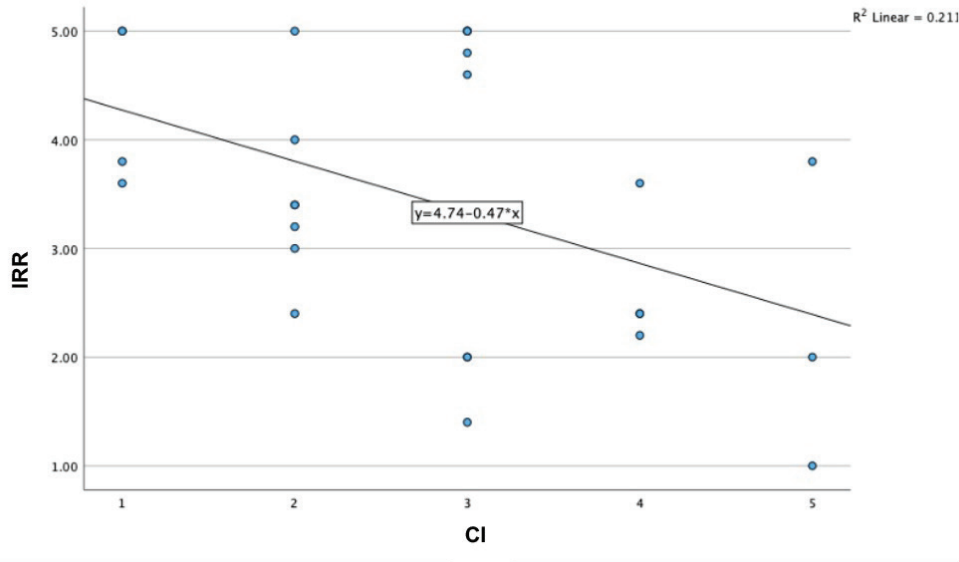
Note: Appendix B demonstrates that the relationship between the quantity of participants' cultural diversity and their IRRs within the academic systems was found to be significantly correlated (r = -.460), with p = .374. Therefore, the null hypothesis is rejected. Findings show that the two are negatively correlated. Along the x-axis are the quantities (1-5) of non-dominant cultural identities (CI) with which each participant self-identified. Along the y-axis are each participants' IRR on the Likert scale.
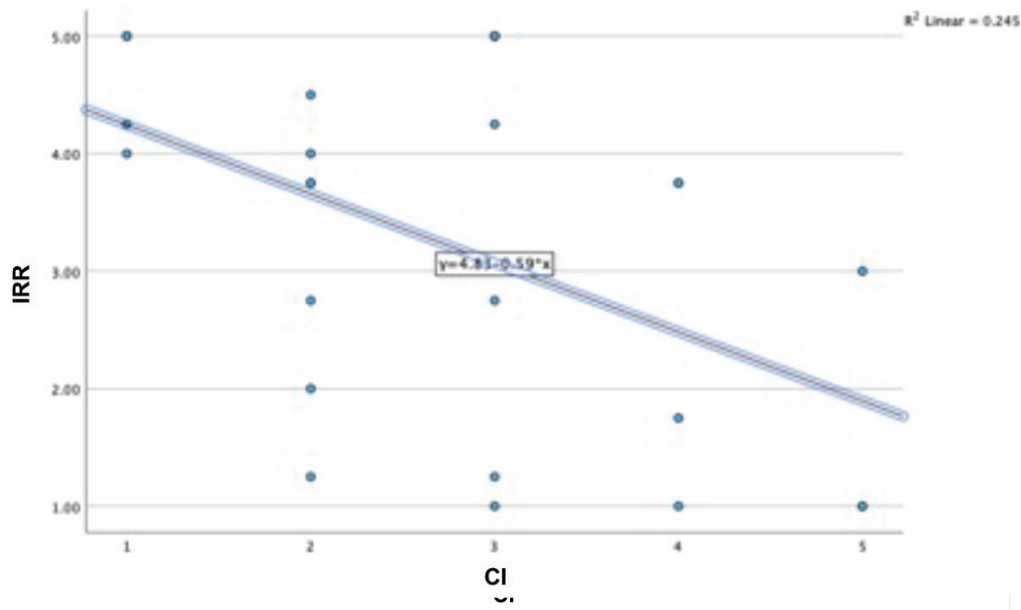
Appendix C

Relationship Between CI and IRR in Social Systems

Note: Appendix C demonstrates that the relationship between the quantity of participants' cultural diversity and their IRRs within the social systems was found to be significantly correlated ($r = -.374$), with $p = .374$. Therefore, the null hypothesis is rejected. Findings show that the two are negatively correlated. Along the x-axis are the quantities (1-5) of non-dominant cultural identities (CI) with which each participant self-identified. Along the y-axis are each participants' IRR on the Likert scale.

Relationship Between CI and IRR in Financial Systems

Note: Appendix D demonstrates that the relationship between the quantity of participants' cultural diversity and their IRRs within the financial systems was found to be significantly correlated (r = -.495), with p = .374. Therefore, the null hypothesis is rejected. Findings show that the two are negatively correlated. Along the x-axis are the quantities (1-5) of non-dominant cultural identities (CI) with which each participant self-identified. Along the y-axis are each participants' IRR on the Likert scale.