

**SOCIAL EMOTIONAL COMPETENCIES:
HISPANIC CULTURAL DIFFERENCES ON THE WCSD-SECA**

By

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ABSTRACT

Emotional Intelligence (EQ) has been studied for nearly four decades, due to its association with academic performance. In recent decades, there has been a push for EQ training within K-12 classrooms, resulting in Social Emotional Learning (SEL) standards that have been adopted by multiple states. Although emotional developmental frameworks continue to progress, the tools used to measure this construct are questionable, especially when applied to diverse groups of students. For example, Hispanic populations socialize, communicate, and express emotions in distinct cultural ways that might not be captured by measures designed for non-Hispanic populations. The present study examines the degree to which social emotional competencies (SEC) differ among Hispanic students compared to their White counterparts on the Washoe County School District Social and Emotional Competency Assessment (WCSD-SECA).

**SOCIAL EMOTIONAL COMPETENCIES:
HISPANIC CULTURAL DIFFERENCES ON THE WCSD-SECA**

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CHAPTER I: INTRODUCTION

Social-Emotional Learning (SEL) is explicitly required in the educational standards of 18 states (Dusenbury, 2020), given its critical role in academic achievement (Durlak et al., 2011; Heckman & Kautz, 2012; Levin, 2012). Socioemotionally competent students, or students with high “emotional intelligence” (EQ), tend to perform better academically than peers with lower EQ (Abdulla Alabbasi et al., 2021; Nathanson et al., 2016;). Social-emotional competencies (SEC) are specific skills that enable youth to recognize, understand, and manage their emotions effectively. These competencies involve having awareness of others' emotions, maintaining positive relationships, and making responsible decisions. The benefits of SECs have been discussed in the literature for nearly four decades. For example, Payne (1985) warned of the emotional suppression caused in schools when educators ignore students' social-emotional development, thereby preventing students from reaching their highest potential. Despite the extensive literature on this topic, SEL conceptualization and its instructional framework are often confused with related concepts.

SEL and Related Concepts

Social-emotional functioning is often assumed to be a byproduct of intellectual functioning (IQ), but research on this relationship has been equivocal (Zeidner & Matthews, 2017). Findings have suggested a positive correlation between IQ and EQ (Singh, & Sachdev, 2020), irrelevance (Longobardi et al., 2020; Arteché et al., 2008), or in some cases a *negative* correlation (Nath et al., 2015; Singh & Sachdev, 2020). Other research suggests that high EQ predicts greater academic performance, but only for those with high IQs (Nath et al., 2015). In short, the research seems to suggest that EQ generally shows greater relevance to social interactions than IQ alone (e.g., Coetzer, 2015).

Among gifted students, the associations between achievement test scores and EQ abilities may not be strong (Lee & Olszewski-Kubilius, 2006). Such findings call into question any presumed interdependence between students' emotional, social, and cognitive performances on academic outcomes. It has been argued that gifted children with low emotional aptitude may underperform compared to gifted children with higher EQ, thus limiting their potential (Zeidner & Matthews, 2017). Evidence for this is present in individuals with higher IQ but low EQ due to mental illnesses or heightened stress (Singh & Sachdev, 2020).

Verbal intelligence (VIQ) refers to an individual's ability to understand and use language effectively, including reading, writing, speaking, and listening skills. VIQ plays a crucial role in various aspects of communication as it is a fundamental component of social interaction and emotional expression. For this reason, the distinction between VIQ and EQ is especially unclear. Salovey (1990) asserts that written EQ instruments essentially measure VIQ, while acknowledging that non-verbal emotional intelligence is conceivably possible. Because most social interactions require verbal communications, high verbal intelligence appears to benefit EQ. Conversely, low VIQ could lead to misconceptions or misperceptions by interlocutors. Indeed, high VIQ scores and strong social support networks are associated with high EQ (Hogan et al., 2010). But the causal direction of the relationship is unclear—strong conversational skills due to VIQ could lead to emotional aptitude, or a high EQ could lead to increased socialization that improves verbal knowledge.

In a meta-analysis (Kong, 2014), VIQ, nonverbal intelligence, and overall IQ appeared to be positively related to EQ. But studies of university students weakened each relationship, suggesting that IQ and EQ are less related among high-functioning individuals. IQ instrument selection strengthened the EQ associations for non-verbal and overall IQ, but not for verbal

ability, suggesting that verbal ability tested on various instruments have similar EQ predictability.

Self-reports of VIQ and EQ abilities have shown that subjects overestimate their EQ performance in comparison to accurately predicting their VIQ abilities (Brackett et al., 2006). Such findings suggest that individuals are less aware of their EQ than their VIQ. For example, gifted children may be aware of their cognitive ability but may still misunderstand their emotions relative to others. Gifted children with high EQ have lower stress levels compared to gifted children with lower EQ abilities (Chan, 2007), suggesting that there are protective benefits to EQ unrelated to IQ.

Furthermore, children with histories of delinquent behaviors often display lower VIQs (Gibson et al., 2001; Hirschi & Hindelang, 1977; Moffitt, 1997; Wilson & Herrnstein, 1985). Delinquent youth generally experience a negative relationship between VIQ and externalizing problems (i.e., maladjusted interactions), where children who are referred for behavioral problems on average have lower VIQ (MacMillan et al., 1996). Children with minimal social-emotional competencies have been reported to be especially impulsive, such as in cases of involuntarily inhibitions of rigid, inflexible behavior, stemmed from internal reactivity with little emotional or behavioral regulation (Derryberry & Rothbart, 1997; Eisenberg & Fabes, 2006). These involuntary reactions are observable in both externalizing and internalizing symptom constellations, relating to attention, motivation, and emotional expression (Eisenberg & Fabes, 2006). These findings are also researched within special populations.

Bilingualism, Acculturation, and Latino SEC

Abilities related to SEL, including VIQ, are known to vary across racial and ethnic groups (MacMillan et al., 1996). Hispanic children specifically, tend to have lower English

language VIQ compared to both White and/or Black children in the United States (Lynn 1996; Mercer & Lewis, 1977; Munford & Munoz, 1980; Taylor & Partenio, 1982; Taylor & Richards, 1991; Whitworth & Chrisman, 1987). Roughly three-quarters of English Language Learners (ELL) in U.S. public schools are Hispanic (U.S. Department of Education, 2020). A preponderance of evidence suggests bilingualism interacts with cognitive, perceptual, brain, and social development to affect educational outcomes (Byers-Heinlein et al., 2019). Still, bilingualism effects are seldom reported in developmental literature (Byers-Heinlein et al., 2019). Given that Hispanic students are sometimes ELL from newly immigrated families, or otherwise diverse linguistically and culturally, social emotional competencies might be misunderstood and poorly measured.

Maintaining one's native language retains ethnic identity, which has been linked to academic success (Hans 2012; Portes & Hao, 1998). Fluent bilingualism can benefit math and reading scores (Golash-Boza, 2005; Han, 2012; Portes & Hao, 1998, 2002, 2004; Portes & Schaufler, 1994), abstract thinking and cognitive flexibility (Bialystok, 1988; Han, 2012; Rumbaut, 1995; Willig, 1985), and self-esteem (Han, 2012; Portes & Hao, 2002). Yet at the same time, when ELL students struggle, bilingualism is often blamed (Han, 2012). Taken together, it appears that bilingual children can succeed academically with the right supports (Collier & Thomas 2004; Han, 2012), but often struggle otherwise. For example, the reading achievement gap between Hispanic and White students has persisted (U.S. Department of Education, 2019). The National Assessment of Educational Progress (2022) showed 61% of Hispanic 12th graders reading at or above a basic level in 2019 (U.S. Department of Education, 2023). Half of the nations' non-Hispanic Black students scored above or at the basic level, and 79% of non-Hispanic White students scored at above the basic reading. Comparing reading

levels from 1992, non-Hispanic White and Black students' 12th grade reading percentages at or above a basic level significantly decreased through 2019, while Hispanic children's scores decreased insignificantly (U.S. Department of Education, 2023).

Socially, Hispanics often endure acculturative stress, resulting in isolation and ostracization, impacting mental health (Brody et al., 2006; Cervantes & Bui, 2015). Consequently, Hispanic children become susceptible to behavioral and emotional disorders. For example, Hispanic children experience disproportionate juvenile detention rates compared to non-Hispanic White youth (Hosp, 2008). Hispanic youth are also likelier to drop out of school compared to other racial/ethnic demographic categories (U.S. Department of Commerce, 2021). One reason may be that Hispanic children are less likely to be formally diagnosed with externalizing disorders compared to non-Hispanics (Watt & Martinez, 2009), which limits access to help. In cases where a diagnosis is made, Hispanic children tend to exhibit more emotional dysregulation than their non-Hispanic peers. For example, Hispanic children with ADHD have unusually high rates of depressed mood and limited emotional self-control (Bauermeister et al.; 1999; Cabiya & Lopez-Cordova, 2015). The likelihood of externalizing disorders in Hispanic populations increases after acculturation, following first-generation residence in the U.S. (Duarte et al., 2008). Thus, acculturation appears to increase the risk for delinquent behavior, while maintaining cultural ties might act as a protective factor (Cabiya & Lopez-Cordova, 2015). The ways in which Hispanics experience social integration appears to influence the trajectories for this at-risk group. Children who can effectively communicate with their household members, in addition to their communities, enhance their interpersonal relationships (Fuligni, 1997, 1998; Fuligni & Flook, 2005; Han, 2012; Tseng & Fuligni, 2000). This connection transfers into the

workplace, as Hispanics excel when social-emotional aspects of the workplace are positive, due to interdependence as a principal component in collectivist cultures (Sanchez-Burks et al., 2000).

For these reasons, explicit instruction in SEL has been advocated for Hispanic students to improve their social, emotional, behavioral, and academic outcomes (Reyes & Elias, 2011; Cook et al., 2017). Students who surpass expectations within at-risk populations—termed “resilient”—tend to display qualities related to EQ (Armstrong et al., 2011; Magnano et al., 2016; Salovey et al., 2002). Magnano and colleagues (2016) consider EQ an antecedent to resiliency by increasing achievement motivation. Salovey and colleagues (1999) suggest EQ abilities guide individuals through stressors in that emotional awareness regulates mood which in turn exhibits effective expression. Armstrong and colleagues (2011) purported EQ buttresses resiliency, by facilitating adaptive behavior in stressful situations. Specifically, they found resilient individuals tend to have higher emotional self-awareness, emotional expression (i.e., appropriate verbal conveyance and musculature.), emotional self-control, and emotional self-management (i.e., positive framing). Considering culture, as well as language, is essential to the emotion in interpersonal interactions, understanding cultural aspects in academic settings is critical.

Examination of EQ abilities among racial and ethnic groups can offer insight into the social-emotional performance of minoritized groups. For example, Hispanics scored a half standard deviation above non-Hispanic Whites and one-fifth of a standard deviation greater than non-Hispanic Blacks on the Emotional Intelligence Scale (EIS) (Rooy et al., 2005). But an extreme response style (i.e., highest or lowest selection pattern) has been reported in Hispanic populations across multiple unrelated measurements (e.g., screeners, personality assessments) (Clarke, 2000; Hui & Triandis 1989; Marin et al. 1992). Social desirability may explain

inaccurate self-report measurements within Hispanic communities, as interdependent groups tend to suppress their emotions to appease social demands (Hecht & Shin, 2015). Possibly, SEC measures and frameworks may not be sensitive enough to capture cultural or linguistic variability.

CASEL Framework

Multiple SEL frameworks exist, but a consensus is emerging regarding the implementation of cognitive-emotive aids for academic achievement (e.g., Biddle, 2021). Of these frameworks, the *Collaborative for Academic, Social, and Emotional Learning* (CASEL) nonprofit organization is perhaps most cited, including by the U.S. Department of Education (U.S. Department of Education, 2023). CASEL's efforts include continuous SEL research to leverage equitable programs through partnered guidance with practitioners (CASEL, 2023). Foundational knowledge in SEL has centralized the "whole child" and "child-centered" approach, with communal influences specific to region. SEC skills are dynamic, each equally interdependent and compatibly driven by the child's ability to analyze internal mechanisms to enhance positive well-being within their environment. CASEL's framework consists of five core competencies: (1) Self-Awareness; (2) Self-Management; (3) Social Awareness; (4) Relationship-Skills; and (5) Responsible Decision Making. Like other emotional intelligence frameworks, CASEL describes each competency by the abilities the individual displays.

Self-awareness requires introspective understanding of how one's emotions, thoughts and values are accountable for individual influences onto surroundings. Competency is exhibited by a stable sense of purpose with confidence to integrate personal and social identities, including personal, cultural, and linguistic assets. In experiencing self-awareness, one can identify their

emotions by uncovering any biases and prejudices through linking those feelings to values and thoughts, to develop efficacy and growth within interests.

Self-management is the ability to regulate emotions, thoughts, and behaviors through stressful periods to achieve goals. Competency in self-management is initiating personal and collective pursuits in a self-disciplined motivated manner by planned organization while managing stress.

Social-awareness is extrospective analysis by expressing gratitude for others' strengths while understanding environmental influences within a multicultural lens, empathetically recognizing the situational demands and opportunities. These skills are reflected in *relationship-skills* which incorporate positive relationships by collaborative problem solving, offering leadership, support, while accepting help. Those with competent relationship-skills are resistant to negative social pressures, advocating for the rights of others by culturally aware effective communication.

Responsible-decision making is identifying solutions for personal or social problems using critical analysis of information while evaluating the impact of personal choice on others. Responsible-decision making extends beyond institutional limits, into judgements pertaining to personal, familial, and communal well-being (CASEL, 2023). These skills require elementary practice in every developmental stage contributing to social inclusion maintenance into adulthood. Although EQ is limited in developmental theory, each of these domains have specific behavioral operations which indicate a student has achieved the skill.

Measuring SEL

Despite advances made by CASEL, the continued inconsistencies in this literature raise crucial questions about the SEL framework in general. One problem is the assessment of SEL

competencies. In 2020, CASEL acknowledged that the terminology in this field varies greatly (Dusenbury et al., 2020), and recommended theory-driven instruments that appear promising, regardless of local nomenclature. Existing support for CASEL domains includes measurements with partial framework alignment, such as *Panorama* (Gordon et al., 2022). The freely available *Washoe County School District Social and Emotional Competency Assessment* (WCSD-SECA) was created by CASEL with all domains included (Davidson et al., 2017). The theoretical and psychometric performance of the WCSD-SECA is still being investigated, and the developers have encouraged researchers to test the instrument to offer potential revisions.

The WCSD-SECA is a child self-report measurement for students in grades 5-12. The instrument comes in a long 40-item form or a 17-item short form, in either English or Spanish, with a 138-item bank for future adaptations. The instrument measures student SEC abilities in all five domains of the CASEL framework, using local standards to guide early instruction. The WCSD-SECA is intended to be used broadly by professionals without clinical or research training. Developed by teacher observations, WCSD-SECA is theoretically strengthened by regional informants (Davidson, et al., 2017).

The WCSD-SECA was developed over four years, surveying urban Nevadan students in middle and high school grades. The first iteration tested items against developmental guides, along with district SEL standards (Davidson et al., 2017). Psychometrically, the WCSD-SECA approach aligned with developmental measurements constructed as *fluid* properties, instead of instrumental fixed traits, by purposefully measuring maturing populations with continuous SEC fluctuations (American Educational Research Association, 2014; Davidson, 2018). High-self rating student characteristics were investigated using Latent class analyses, whereas multi-level regression related WCSD-SECA to academic and behavioral outcomes. Differential SEC

functioning by grade, student race-ethnicity/gender were present for a small number of items, but not for ELL status. When controlling for these factors using the shortened form, associations between higher SEC ratings coincided with lower suspension and absentee rates, and higher standardized test scores and weighted high school GPAs. The authors stated little evidence for ceiling or floor effects on the latest version, with items targeting low-to-average SEC ability level despite attempts to improve these issues through focus groups (Davidson et al., 2017).

Crowder and colleagues (2019) investigated subpopulation deviations on the 40-item WSCD-SECA related to gender and race-ethnicity. Their analysis used identical items across two years of data collection (2015 to 2016). According to the authors, 76% of items were equivalent by grade and gender/race-ethnicity with no differences in ELL status. The portion (i.e., 8 items) that did show differential item functioning (DIF) using the Rasch approach, were paired by gender and race-ethnicity (e.g., White female versus Hispanic male students) then compared. There were 3 items that were significantly easier for White female students compared to Hispanic male students. These items were within the emotional components of both the Self-Awareness and Self-Management domains, as well as a single item from the Relationship Skills domain. White male students scored significantly higher than female Hispanic students in two questions, belonging to either the Self-Management: Emotion Regulation subdomain or the Self-Management: School Work subdomain.

Gordon and colleagues (2022) published a similar study investigating gender and racial-ethnic factors within specific grades. Multidimensional evidence (i.e., consistent CFI greater than 0.01) suggested a better fitting structure, leading the authors to reconfigure dimensions. Because global invariance was rejected on the 40-item WSCD-SECA, an Mplus alignment model was utilized with fixed parameters. The WSCD-SECA 40-item assessment was then reduced to 21-

items that fit a 3-factor solution described as Intrapersonal ($\omega = 0.88$), Interpersonal ($\omega = 0.81$) and Emotion Focused ($\omega = 0.79$). Each dimension had higher coefficients than the original version, with the entire measure at $\omega = 0.91$. Between these three dimensions, factor loadings were equivalent, but the thresholds were noninvariant, indicating that interpretations of items differed between groups (Gordon et al., 2022).

In general, younger grades (i.e., 5th and 6th) tended to endorse “very easy” in the Interpersonal factor and Emotional-Focused factor compared to older groupings of both racial-ethnic categories. Intrapersonal factors were slightly different, with younger grades endorsing either “very easy” or “easy” compared to older grades. Specifically, White female students endorsed greater Interpersonal (i.e., Self-Management domains) and Intrapersonal competencies (i.e., a combination of Social Awareness: Emotional Knowledge subdomain, Relationship Skills, and Responsible Decision-Making domains) than either White or Hispanic male students and Hispanic female students. Likewise, the Emotional-Focused (i.e., Self-Awareness: Emotional Knowledge subdomain and Self-Management: Emotional Regulation subdomain) competencies for 11th grade White female students was easier in comparison to other groupings. Interpersonal competencies were significantly different for male versus female White students in the 6th or 8th grade where female students endorsed higher ratings than their male counterparts, while Hispanic subpopulation had similar ratings between the sexes. Intrapersonal competencies were rated as most difficult for White male students and easiest for older female students of either racial/ethnic grouping. This could indicate that gender norms relating to emotionality are culturally driven, thus exhibited differently within school settings. In summary, it appeared that White female students found SEC competencies easy to achieve in all domains, with the exception to the Emotion-Focused subdomain where only older White female students reported

relative ease. Interestingly, male Hispanic students endorsed greater Emotion-Focused SEC skills than their White female counterparts (Gordon et al., 2022).

Present Study

As specified by the WSCD-SECA creators, there is need to investigate the instrument's psychometrics using diverse racial, ethnic, and regional samples. The present analysis is an exploratory investigation whether the WSCD-SECA holds consistent psychometric properties in a sample of racially and ethnically diverse middle school students in North Carolina (NC). I focused my analysis on the Hispanic subsample in comparison to the White subsample, to investigate if racial-ethnic patterns emerge as seen in previous studies. I hypothesized that the White subsample would report greater SECs across the Self-Management and Relationship Skills WSCD-SECA dimensions than the Hispanic subsample, consistent with previous research (e.g., Crowder et al., 2019). On the other scales, however, there was insufficient prior evidence to predict a directional difference, so this component of my analysis is exploratory.

CHAPTER II: METHODS

MATCH Wellness, Inc. (MWI; www.matchwellness.com) created MATCH Connect™, an interdisciplinary curriculum to provide young adolescents a foundation for optimal social, emotional, and behavioral health. MATCH Connect was designed to follow the CASEL Five Framework for Social and Emotional Learning and developmental tasks specific to adolescents. In a recent study conducted during the 2021-22 school year, MWI recruited teachers to deliver the MATCH Connect curriculum in Health and Physical Education classes by inviting NC school districts and building principals to participate. To participate, candidate schools were required to teach Health and Physical Education on a semester basis. Interested teachers signed a memorandum of understanding (MOU) indicating they would (a) participate in 2-3 hours of MATCH Connect training; (b) conduct pre- and post-treatment student evaluation surveys; (c) teach enough lessons for fidelity; (d) complete individual surveys on a small random sample of students they teach from observation; and (e) participate in focus group and post Teacher Satisfaction Survey. Teachers received small stipends for training completion from MWI.

Students in the participating classrooms participated by taking pre- and post-treatment surveys and engaging in the MATCH Connect classroom lessons. MWI used an opt-out consent/assent procedure with the participating school districts. As part of the initial assessment, students completed the long-form of the WCSD-SECA. In all, 10 schools participated in the study and a total of 493 students provided responses to the WCSD-SECA. Demographics of the participants are provided in Table 1. Race and ethnicity data were collected from the participating school districts. Most students identified as White (54.4%), followed by Black/African American (22.5%). Unfortunately, race and ethnicity data were combined into one

Table 1.*Student Race and Ethnicity by School and Grade*

School	Grade	Race/Ethnicity							Totals
		White	Black/AA	Asian/PI	American Indian/ Alaskan	Hispanic	Multi-racial	Native Hawaiian	
#1	6	7	15	-	1	7	1	-	31
#2	7	22	7	-	2	3	1	-	31
	8	11	3	-	-	1	-	-	15
#3	8	16	14	-	9	17	4	-	60
#4	7	-	1	-	-	-	-	-	1
	8	4	3	-	-	2	-	-	9
#5	6	4	9	-	6	7	7	-	33
#6	7	21		1	-	3	-	-	25
#7	7	13	3	-	1	8	1	1	27
	8	15	3	-	-	5	-	-	23
#8	7	16	6	-	-	2	1	-	25
#9	6	19	19	-	-	3	-	-	41
	7	12	7	-	-	3	-	-	22
	8	6	11	-	-	1	-	-	18
#10	6	28	1	-	-	4	-	-	33
	7	42	4	-	1	3	2	-	52
	8	32	5	-	-	6	-	-	43
Totals		268	111	1	20	75	17	1	493

Note. School names are withheld to protect individual identities of the participants.
AA = African American; PI = Pacific Islander

variable, making it impossible to distinguish the race of students identifying as Hispanic. Still, 75 of the participants (15.2%) identified as Hispanic, and those students will be the focus of the present study.

Measure

Unlike other social emotional competency measures (e.g., Panorama, CORE), the WCSD-SECA was initially co-created by teachers, educational staff, and researchers in the western region of the United States, beginning with an item bank of 138 items. Following initial challenges, WCSD-SECA revisions were informed by student focus groups, ultimately leading to the 40-item version examined in the present study. This 40-item version divides the Self-Awareness domain into Strengths and Weaknesses (i.e., Self-Concept) (4-items) and Emotion Knowledge (6-items) (Gorden et al., 2022). Self-Management is trifurcated into Emotion Regulation (4-items), Goal Management (4-items), and School Work (6-items). The remaining domains of Social Awareness (5-items), Relationship Skills (6-items), and Responsible Decision Making (5-items) were left unaltered, resulting in eight total domains. The WCSD-SECA prompts student respondents to “Please tell us how easy or difficult each of the following are for you...,” with response selection in Likert form from 1 = *Very difficult*, 2 = *Difficult*, 3 = *Easy*, 4 = *Very Easy*. The 17-item short form of the WCSD-SECA includes all eight dimensions, with one to three items per subdomain, identically formatted as the long version otherwise (Davidson, 2018).

Published psychometric information (Gordon et al., 2022) consisted of the omega coefficient on the 40-item scale ($\omega = 0.94$). Each CASEL domain and WCSD-SECA dimensions’ omega coefficients reliability ranged from .62 to .94. CASEL’s original Self-Awareness ($\omega = 0.79$) reliability was greater than the WCSD-SECA subscales of Strength and

Weaknesses ($\omega = 0.62$) and Emotional Knowledge ($\omega = 0.73$). The CASEL and WCSD-SECA domain of Social Awareness ($\omega = 0.79$) was slightly more reliable than Relationship Skills ($\omega = 0.75$) and Responsible Decision Making ($\omega = 0.75$). The CASEL domain of Self-Management ($\omega = 0.90$) reliability was greater than the WCSD-SECA subcomponents of Emotional Regulation ($\omega = 0.74$), Goal Management ($\omega = 0.78$), and Schoolwork ($\omega = 0.84$). The item comparative fit index (CFI) was described as unsupportive having values below 0.90 (omega range = 0.78–0.87). The root mean square error of approximation (RMSEA) values were above 0.06 but below 0.08. The standardized root mean residual SRMR values were below 0.06.

Statistical Analysis

In the present study, the 40-item WCSD-SECA was used. Cronbach's alpha reliability coefficients were computed for all three domains and five subdomains. Alpha was also computed for the White and Hispanic subsamples. As noted above, both the Gordon and colleagues (2022) and Crowder and colleagues (2019) showed racial-ethnic gender differences, mostly within the Self-Management and Relationship Skills domains, where White students endorsed greater SECs than Hispanic students. I anticipated similar results in this study and tested these differences using four independent one-tailed *t*-tests; but otherwise, I did not have directional hypotheses for the other four dimensions. In those latter instances four independent two-tailed *t*-tests were used to explore mean differences among the other WCSD-SECA domains between the Hispanic subsample and the White subsample. The traditional alpha level ($p = .05$) was adjusted using Bonferroni corrections for multiple comparisons to avoid family-wise error. With eight planned analyses, the corrected alpha level was $p < 0.0063$.

CHAPTER III: RESULTS

Descriptive Statistics

Descriptive statistics were computed for the full sample and by racial-ethnic categories of interest (Table 2). Missing values were excluded from analysis, which was rare (i.e., 0.002% of all datapoints). Overall, the White subsample (mean average range: 9.78 - 16.73; standard deviation range: 1.78 - 3.28) tended to endorse greater SECs in all dimensions than the Hispanic subsample (mean average range: 9.78 - 16.59; standard deviation range: 1.75 - 3.14). The Emotional Regulation subscale appeared to be the lowest endorsed SEC for the entire sample ($M = 9.67$; $SD = 2.30$) as well as for the White subsample ($M = 9.78$; $SD = 2.25$) and Hispanic subsample ($M = 9.78$; $SD = 2.06$). Likewise, the SEC rated as easiest was Emotional Knowledge across the entire sample ($M = 16.63$; $SD = 3.00$), White subsample ($M = 16.73$; $SD = 2.96$), and Hispanic subsample ($M = 16.59$; $SD = 3.14$). Consequently, this may indicate that students in our sample feel they are aware of their emotions but are unable to manage emotionality with the same ease.

Table 2.*WCSD-SECA Descriptive Statistics*

Domain / Subdomain	Entire Sample (<i>N</i> = 493)		White Students (<i>n</i> = 268)		Hispanic Students (<i>n</i> = 75)	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Self-Awareness						
Strengths/Weaknesses	11.08	1.84	11.24	1.78	10.95	1.75
Emotional Knowledge	16.63	3.00	16.73	2.96	16.59	3.14
Social Awareness	14.14	2.20	14.19	2.07	14.16	2.15
Self-Management						
Emotional Regulation	9.67	2.30	9.78	2.25	9.78	2.06
Goal Management	10.70	2.24	10.73	2.15	10.27	2.10
Schoolwork	15.30	3.27	15.63	3.28	14.65	3.04
Relationship Skills	15.52	3.00	15.77	2.90	15.68	2.72
Responsible Decision-Making	14.20	2.54	14.38	2.42	13.97	2.32

Note. The entire sample included students of races/ethnicities other than White and Hispanic.

Reliability

Cronbach's alpha reliability coefficient was calculated for the full sample (*N* = 493) with missing data excluded from analysis. Previous research on the WCSD-SECA used Omega coefficients (Gordon et al., 2022), and the Rasch approach of differential item functioning (Crowder, et al., 2019) was used to investigate validity and factor analysis. The alpha coefficient for the full 40-item instrument was unassessed, but it offers an estimate of the lower bounds of internal reliability, which is critical to know given that the WCSD-SECA is intended to measure

the theory-based CASEL multidimensional framework. Each of these domains and subdomains were examined separately, as advised by Tavakol and Dennick (2011).

The WCSD-SECA domains and subdomains alpha reliability ranged from 0.42 to 0.71 (see Table 3) for the entire sample. For the Hispanic subsample, the internal reliability ranged from 0.33 to 0.67, and the White subsample ranged from 0.41 to 0.73. Traditionally alpha coefficient levels beneath 0.70 are considered unreliable (Tavakol & Dennick, 2011), but the alpha cutoff is debatable because acceptable ranges can be misleading in some situations (Agbo, 2010). Scales with more items tend to inflate Cronbach's alpha coefficient and scales with fewer items may give underestimated reliability coefficients (Agbo, 2010; Tavakol & Dennick, 2011). But scales with fewer items may measure distinct concepts. My findings suggest that the dimensionality of the WCSD-SECA is questionable, similar to the findings of Gordon and colleagues (2022). The only dimension which met the traditional alpha coefficient level was the Schoolwork subscale ($\alpha = 0.71$) of the Self-Management domain, both for the entire sample and the White subsample.

Table 3.*Internal Reliabilities of the WCSD-SECA Subscales*

Domain / Subdomain	Number of Items	Cronbach Alpha (α)		
		Entire Sample	White	Hispanic
Self-Awareness				
Strengths/Weaknesses	4	0.42	0.41	0.33
Emotional Knowledge	6	0.59	0.60	0.67
Social Awareness	5	0.48	0.43	0.57
Self-Management				
Emotional Regulation	4	0.62	0.65	0.46
Goal Management	4	0.67	0.68	0.51
Schoolwork	6	0.71	0.73	0.65
Relationship Skills	6	0.59	0.58	0.57
Responsible Decision-Making	5	0.60	0.60	0.48

Independent *t*-Test

The independent two tailed and one tailed *t*-tests descriptions are in Table 4. Unequal variances were assumed because subsample sizes are unequal. A 95% confidence interval was used for all *t*-tests. Individuals missing datapoints from specific domain were excluded from that analysis. Hedges' effect size correction (*g*) is reported because the Hispanic subsample ($n = 75$) was much smaller than the White subsample ($n = 268$). Generally, Hedge's *g* is interpreted as "small" at 0.16, "medium" at 0.38, and "large" at 0.76, according to Brydges (2019). None of the WCSD-SECA *p*-values resulted in significant mean differences in either direction of the two-tailed *t*-test after the Bonferroni correction ($p < .0063$). My hypothesis regarding the Self-Management subscales and Relationship Skills WCSD-SECA domain was similarly unsupported with the one-tailed *t*-test. Results suggest that racial-ethnic groups do not self-rate significantly differently across SECs, even though White students endorse appreciably greater levels of SECs than Hispanic students in almost all domains and subdomains (see Table 2.). In other words, the statistical comparisons were inconclusive.

Table 4.*WCSD-SECA t-test Results Comparing White and Hispanic Students*

Domain / Subdomain	Race	<i>n</i>	<i>t</i>	One-tailed <i>p</i>	Two-tailed <i>p</i>	<i>g</i>	95% CI
Self-Awareness							
Strengths/Weaknesses	White	267	1.280	---	0.2030	0.16	-0.09 - 0.42
	Hispanic	75					
Emotional Knowledge	White	266	0.331	---	0.7420	0.05	-0.21 - 0.30
	Hispanic	74					
Social Awareness	White	266	0.114	---	0.9070	0.02	-0.24 - 0.27
	Hispanic	75					
Self-Management							
Emotional Regulation	White	268	0.024	0.4910	---	0.00	-0.25 - 0.25
	Hispanic	75					
Goal Management	White	267	1.688	0.0470	---	0.22	-0.03 - 0.47
	Hispanic	75					
Schoolwork	White	267	2.421	0.0100	---	0.30	0.04 - 0.55
	Hispanic	75					
Relationship Skills	White	264	0.246	0.4030	---	0.03	-0.22 - 0.28
	Hispanic	75					
Responsible Decision-Making	White	263	1.154	---	0.2510	0.15	-0.10 - 0.40
	Hispanic	75					

Note. No significant differences were noted following Bonferroni correction ($p < .0063$).
CI = confidence interval

CHAPTER IV: DISCUSSION

As noted in previous research (e.g., Davidson et al., 2018), the WCSD-SECA is a novel measure that requires additional investigation. Based on studies to date, it appears that most student respondents tend to rate themselves in the moderate SEC range despite differing academic outcomes. Thus, the WCSD-SECA items might reflect a mismatch between the expected social-emotional competencies of students versus the social-emotional realities of minoritized groups within a diverse population. Gordon and Crowder (2019) found that many items which were thought to be competencies for younger grades (e.g., “Sharing what I am feeling with others,” “Talking to an adult when I have problems in school”) were rated the *hardest* by middle and high school students. This may be due in part to the WCSD-SECA’s theory-driven dimensions based on the CASEL framework that largely ignore student development and racial-ethnic context. The WCSD-SECA was re-examined by Gordon and colleagues (2022) and the internal reliability of most domains was sufficient, apart from two subscales. Although internal reliability testing was not the primary aim in the present study, it seemed necessary to examine, given these previous findings. My results suggest the original eight domains and subdomains of the WCSD-SECA are indeed questionable.

My primary focus was on the differences between White students and Hispanic students on the WCSD-SECA, given previous research suggesting students from these groups differ in their responses. But my results were inconclusive. In short, White and Hispanic students did not rate themselves significantly differently across WCSD-SECA dimensions, which might be viewed as a positive finding. The hypothesis that non-Hispanic White students would endorse greater Relationship Skills and Self-Management items was unsupported, with subdomains

failing to show significantly greater endorsements by White compared to Hispanic students (following corrections for multiple comparisons).

Concerned by poor internal reliability, Gordon and colleagues (2022) reconfigured the 40-item, 8-dimension WCSD-SECA into a 21-item, 3-dimension instrument, which diverges from the CASEL domains. The new subscales were labelled “Emotion-Focused,” “Interpersonal,” and “Intrapersonal.” These dimensions were then analyzed to investigate performance across racial and ethnic groups. The Intrapersonal dimension resulted in significant differences where White students self-rated their SECs higher than Hispanic students, with all items derived from the original Self-Management domain. In the Crowder and colleagues (2019) study, three out of the six WCSD-SECA items which had racial-ethnic and gendered differences were in the Self-Management domain. Given that items in this domain consist of skills closely linked to school achievement (e.g., “Thinking through the steps it will take to reach my goal,” “Doing my schoolwork even when I do not feel like it,” “Planning ahead so I can turn a project in on time”), these differences might reflect the tendency for White students to outperform ethnic minorities in academics.

The remaining two dimensions—Interpersonal and Emotion Focused— also resulted in racial-ethnic differences in the Gordon and colleagues (2022) study, where Hispanic male students endorsed greater SECs in the Emotion-Focused dimension (e.g., “Getting through something even when I feel frustrated,” “Being patient even when I am really excited,” “Knowing ways I calm myself down”) than either Hispanic female counterparts, or non-Hispanic White subpopulation. This finding may be related to the emotional suppression seen in interdependent cultures (Hecht & Shin, 2015), which Payne (1985) attributed to academic difficulties. Or possibly, the limited Self-Management and heightened Emotion Regulation skills

found amongst Hispanic youth might mirror the Bauermeister and colleagues (1999) findings regarding ADHD Hispanic youth diagnoses without hyperactivity.

Given these findings, I conducted a *post hoc* analysis using Gordon and colleagues' (2022) reconfigured WCSD-SECA domains to assess if differences might emerge between White and Hispanic students in the present sample (Table 5.). On the Intrapersonal dimension, White students ($M = 23.28$, $SD = 4.46$) endorsed significantly greater SECs than Hispanic students ($M = 21.85$, $SD = 4.09$), when adjusting the alpha level for just three comparisons ($t = 2.62$, $p = .01$, $g = 0.33$) which replicates Gordon and colleagues (2022) finding. But the difference on the Interpersonal domain (White student $M = 23.07$, $SD = 3.39$; Hispanic student $M = 22.92$, $SD = 2.78$) was inconclusive ($p = 0.69$). Likewise, the comparison was inconclusive on the Emotion-Focused domain (White student $M = 9.84$, $SD = 2.46$; Hispanic students $M = 10.08$, $SD = 2.53$) for the two-tailed ($p = 0.47$) test.

In general, my results trended in the same direction as those of Gordon and colleagues (2022), with Hispanic students' rating themselves appreciably stronger than their White counterparts on the Emotion-Focused dimension. My results might differ if gender and grade were considered, as in previous investigations (e.g., Crowder et al., 2019; Gordon et al., 2022), but those considerations were beyond the scope of the present study.

Table 5.*WCSD-SECA t-test Results using Gordon and Colleagues (2022) Domains*

Domain / Subdomain	Race	<i>n</i>	<i>t</i>	Two-tailed <i>p</i>	<i>g</i>	95% CI
Emotion-Focused	White	267	-0.72	0.47	-0.01	-.35 - .16
	Hispanic	75				
Interpersonal	White	267	0.41	0.69	0.05	-.21 - .30
	Hispanic	75				
Intrapersonal	White	266	2.62	0.01	0.33	.07 - .58
	Hispanic	75				

Given that Self-Management items were endorsed at appreciably greater levels by White students than Hispanic students, as seen in the Gordon and colleagues' (2022) Intrapersonal dimension, my findings may indicate differences in how academic skills are taught or interpreted across students from different racial-ethnic backgrounds. As mentioned above, Hispanic students are seldomly diagnosed with externalizing disorders (Watt & Martinez, 2009), despite higher school drop-out rates than non-Hispanic students (U.S. Department of Commerce, 2021). Hispanic students are also disproportionately represented in juvenile systems compared to White youth (Hosp, 2008). My findings suggest that Hispanic students do not receive the same level of academic supports as their White counterparts. Possibly Hispanic students do not display emotionality like non-Hispanic peers, leading administration to overlook cognitive difficulties. Perhaps emotionality results in socialization, increasing confidence in domains like Self-Management and Interpersonal competencies for White students regionally.

Other considerations include bilingualism, as previous studies nor the present study evaluated how many students were bilingual or resided within a bilingual household. As ELL status is generally conflated with bilingualism (Byers-Heinlein et al., 2019), the number of bilingual students across the United States is widely unknown (Byers-Heinlein et al., 2019). As communication is the crux to socialization, this factor is often undermined.

Similarly, CASEL's Self-Awareness competency is exhibited by having a stable sense of purpose and confidence to integrate personal and social identities, including personal, cultural, and linguistic assets. Biculturalism is comfort with both one's native and adopted cultures (Schwartz, & Unger, 2010), it is possible that students' need to achieve biculturalism to feel at ease with Self-Awareness SECs. Without social awareness of the cultural interplays of diverse students, individualized SEL frameworks are unsuccessful (Mahoney et al., 2021). Thus, it is critical to examine EQ development and by extension SEL measures through a cultural lens in future studies.

Conclusion

The psychometric properties of the WCSD-SECA have been questioned from its conception. Although the WCSD-SECA is unique in that it used participatory action methods in its creation, including focus groups with large numbers of students (Davidson et al., 2017), previous studies suggest that it lacks sufficient internal reliability. Additionally, the factor structure has been challenged.

In the present study, using a sample of students from North Carolina, the WCSD-SECA generally demonstrated acceptable internal reliability. In its original eight-dimension configuration, there was no evidence for significant racial or ethnic differences when comparing White and Hispanic students. But in a *post-hoc* analysis, racial-ethnic differences emerged within

the Intrapersonal domain, proposed by Gordon and colleagues (2022). It is possible that Hispanic students in the current study had a harder time managing schoolwork and goals than their White peers. Interestingly, the same pattern emerged in the western U.S. region in previous studies using a larger sample. This outcome may be driven by universal regional similarities or potentially through broader attributes in Hispanic cultures. Future directions might consider bilingualism and parental language as factors in the analysis, along with gender and grade as seen in other studies.

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APPENDIX: IRB EXEMPTION LETTER



EAST CAROLINA UNIVERSITY
University & Medical Center Institutional Review Board
4N-64 Brody Medical Sciences Building- Mail Stop 682
600 Moye Boulevard · Greenville, NC 27834
Office 252-744-2914 · Fax 252-744-2284
rede.ecu.edu/umcirb/

Notification of Exempt Certification

From: Social/Behavioral IRB
To: [Brandon Schultz](#)
CC:
Date: 7/28/2021
Re: [UMCIRB 21-001360](#)
Pilot Study of the MATCH Connect Program

I am pleased to inform you that your research submission has been certified as exempt on 7/28/2021. This study is eligible for Exempt Certification under category # 4b.

It is your responsibility to ensure that this research is conducted in the manner reported in your application and/or protocol, as well as being consistent with the ethical principles of the Belmont Report and your profession.

This research study does not require any additional interaction with the UMCIRB unless there are proposed changes to this study. Any change, prior to implementing that change, must be submitted to the UMCIRB for review and approval. The UMCIRB will determine if the change impacts the eligibility of the research for exempt status. If more substantive review is required, you will be notified within five business days.

Document	Description
Focus Group Protocol(0.01)	Interview/Focus Group
Focus Group Protocol(0.01)	Scripts/Questions
Permission Letter from MWI(0.01)	Surveys and Questionnaires
School Principal Letter to Parents(0.01)	Dataset Use Approval/Permission
Staff Rating of Youth Behavior-Short Form(0.01)	Recruitment Documents/Scripts
Study Protocol(0.01)	Surveys and Questionnaires
Teacher Satisfaction Questionnaire(0.01)	Study Protocol or Grant Application
Washoe County School District Social and Emotional Competency Assessment(0.01)	Surveys and Questionnaires
	Surveys and Questionnaires

For research studies where a waiver or alteration of HIPAA Authorization has been approved, the IRB states that each of the waiver criteria in 45 CFR 164.512(i)(1)(i)(A) and (2)(i) through (v) have been met. Additionally, the elements of PHI to be collected as described in items 1 and 2 of the Application for Waiver of Authorization have been determined to be the minimal necessary for the specified research.

The Chairperson (or designee) does not have a potential for conflict of interest on this study.