UC Santa Cruz
UC Santa Cruz Previously Published Works

Title

“Success” in the Borderlands: Measuring Success for Underrepresented and Misrepresented College Students

Permalink

https://escholarship.org/uc/item/7xv66435

Journal

Journal of Diversity in Higher Education, 16(5)

ISSN

1938-8926

Authors

Langhout, Regina Day
Rosales, Christine E
Gordon, David L

Publication Date

2023

DOI

10.1037/dhe0000444

Peer reviewed

eScholarship.org Powered by the California Digital Library
University of California

Langhout, R.D., Rosales, C.E., & Gordon, D.L., (2023). "Success" in the Borderlands: Measuring success for underrepresented and misrepresented college students. *Journal of Diversity in Higher Education, 16*(5), 646-659. https://DOI:10.1037/dhe0000444

"Success" in the Borderlands: Measuring success for underrepresented and misrepresented college students

Regina Day Langhout[1], Christine E. Rosales[2], and David L. Gordon, Jr. [1]

[1]University of California, Santa Cruz

[2]California State University, Monterey Bay

Author Note

Thank you to David Cox, Michelle Fine, Andy Furco, Michaela Hynie, Geoff Maruyama, Xafsa Mohamed, David Perry, Krista Soria, and Shannon Wilder for their assistance with this manuscript. We especially thank Leslie López, who wrote the Borderland questions contained in this manuscript. This work was supported by First in The World grant #P116F140033 from the Fund for the Improvement of Postsecondary Education, U.S. Department of Education. We have no known conflict of interest to disclose.

Correspondence should be addressed to Regina Day Langhout at Psychology Department, University of California, Santa Cruz, 1156 High Street, Santa Cruz, CA, 95064, or via email at langhout@ucsc.edu.

Abstract

Current measures of student success fall short in capturing the nuanced and multiplicitous ways that underrepresented and misrepresented students (e.g. Latinx, first-generation college students) who are navigating the intersection of multiple contexts important to their identities (e.g. home communities and university), define and understand success. For students, success includes individual and collective desires for well-being, or the desire to acquire an education to improve one's life and to pursue social justice in their home communities. In this study, we used Chicana feminist Gloria Anzaldúa's concept of the Borderlands (1999) as a conceptual framework to develop a Borderlands scale as a new measure of student success. For the psychometric validation of the scale, we surveyed 250 college students who were enrolled in an Hispanic Serving Research Institution. On a random half sample of the data, we performed an exploratory factor analysis to determine a good fitting model. On the other half of the sample, we performed a confirmatory factor analysis to assess evidence of validity. For the purposes of assessing convergent and discriminant validity, we provide correlations between the Borderlands scale and three thriving quotient subscales: academic determination, social connection, and diverse citizenship (Schreiner, 2010a), as well as high school GPA and composite SAT scores. We end the paper with implications for the college student success literature, and for universities, especially HSIs.

Key words: college student success, Borderlands, students of Color, first-generation college students, thriving, HSI

"Success" in the Borderlands: Measuring success for underrepresented and misrepresented college students

College student "success[1]" is a topic of great interest to the state, parents, university faculty and staff, and, of course, students. Although this is the case, how universities measure success tends to be narrow and rarely considers holistic assessment (Carpenter, & Peña, 2017; Garcia & Koren, 2020; Pascarella & Terenzini, 2005; Pyne & Means, 2013). Indeed, when universities report about student success, they often focus on career-oriented aspects such as time to degree and obtaining a job after graduation (McCormack et al., 2014; University of California Office of the President, 2015). This individualizing and job-related focus is consistent with structures of whiteness and white supremacy in that there is a privileging of actions and abilities that produce profit for a few in a context of racial inequality that is deepened by this narrow focus (Garcia & Koren, 2020; Melamed, 2015; Monzó & SooHoo, 2014). Relatedly, these measures are reflective of neoliberalism, which emphasizes individual gain and individual responsibility (Giroux, 2014) at the expense of societal well-being. Neoliberalism is the promise of freedom and prosperity through cutting public services, privatization, and maximizing individual gain; it is the idea that individual responsibility is the cornerstone of success and therefore, a well-functioning society (Harvey, 2011).

How success is measured is informed by (neoliberal) federal laws, which are designed to increase institutional accountability and prevent fraud against students (Whistle, 2017). This reporting began in 1966 and has seen major overhauls since then, including in 1986 and 2008 (Whistle, 2017). For example, the Higher Education Opportunity Act (Public Law 110-315), passed in 2008, required universities to report graduation rates and subsequent employment.

---

[1] We put "success" in quotes to illustrate that it is a social construction, an unfinished and incomplete idea, and one to which we seek to expand and contribute.

Similarly, the US Department of Education requires the reporting of, and then makes public through their scorecard, student persistence and graduation rates, time to degree, and typical earnings after graduation (U.S. Department of Education, nd).

Limited definitions of success, such as those publicly reported by many institutions, is not only insufficient, but is potentially harmful to underrepresented and misrepresented students. By underrepresented, we mean students who are members of a social group that are present in academia at a reduced rate, disproportionate to their presence in the U.S. population, primarily as a result of historic disparities in opportunities and resources (Langhout & Gordon, 2021; Pyne & Means, 2013). Alternatively, a social group may be represented physically in numbers consistent with their presence in the larger population, but this physical representation may not address the failure of the institution to incorporate their views and perspectives into the development of institutional norms and policies. The structures, policies, procedures, and expectations of the institution may, instead, continue to reflect the values of socially dominant groups, despite apparent numerical equity. Those values may falsely be portrayed as common sense or based on consensus, thereby misrepresenting the values of marginalized participants within a space (Fraser, 2007; Langhout & Gordon, 2021). For example, an institution may suggest that all students primarily embrace neoliberal definitions of success, although this is not necessarily the case (Killoren et al., 2017). In such instances, support for programs that encourage neoliberal definitions of success might be prioritized over those that promote definitions of success rooted in communities of Color[2], and working class and working poor communities. For this paper, we

[2] "Color" is capitalized to signify a political identity that embodies solidarity with others who are racially marginalized in the United States and globally (The Santa Cruz Feminist of Color Collective, 2014; Walia, 2013).

focus on definitions of success as described by Latinx[3] students, which are not always reflected or shared by institutional definitions.

For example, programs such as those within TRIO promote achievement for minoritized students in areas beyond GPA and time-to-degree (Renbarger, 2019; Sabay & Wiles, 2020). Yet, in some cases, by failing to meet neoliberal standards for success, these programs have been recommended for defunding, with support being moved to STEM-focused programs instead (Abdul-Alim, 2012). As legislators advocate for competitive grant funding on the basis of neoliberal definitions of success, the potential of being defunded is a constant concern (Abdul-Alim, 2012).

Furthermore, neoliberal definitions of success fail to incorporate the reality that students are engaged in essential activities outside of the college space that provide them with benefits that cannot be constrained to GPA or economics. Although many youth attend college with the goal of economic success, they also attend with hopes and dreams for their communities that may not be captured by neoliberal definitions of success. These might be reflected in the manner in which they engage in community and home activities (Alcantar, 2014; Littenberg-Tobias & Cohen, 2016; Perez, 2010). Civic and home engagement have been shown to be associated with academic success, but the motivations and definitions of success underlying that engagement often do not receive the same investment as neoliberal definitions of success (Perez et al., 2010).

To be clear, measures such as persistence, time to degree, GPA, and employment after graduation are important measures of success, but what is problematic is when these indicators

[3] We use "Latinx" as a term that re-emerged in 2014 on social media forums dedicated to Afro-Latinx and Indigenous-centered speaking people (Garcia, 2017). Although it may not be a perfect term, nor a term used by everyone in a constantly evolving language landscape, "Latinx" disrupts the erasure of Afro-Latinx and Indigenous languages by standard Spanish, puts gender at the forefront, and moves in the direction of decolonizing Spanish (Gamio, 2016; Garcia, 2017).

are the sole or primary ways to assess success. Presumably because they understand this, some institutions of higher education look to other measures as well, to supplement their reporting, and at times, for accreditation. For example, some institutions use the thriving quotient as a supplemental measure, to assess if their students are having a fulfilling experience (Schreiner, 2010a). Others use measures such as the National Survey of Student Engagement (NSSE) or the Student Experience in the Research University survey (SERU). In all cases, it is important to establish measures of success that are not embedded in whiteness and neoliberal notions only, and are instead grounded in how underrepresented and misrepresented students contemplate these issues for all campuses.

There are multiple other ways to define success beyond the scope of neoliberalism and white supremacy (Alcantar, 2014; Garcia & Koren, 2020; Pyne & Means, 2013). One example is *una buena educación*, which emphasizes values, respect, and commitment to home communities (Carrillo, 2016). Another draws on Critical Race Theory by developing a multi-dimensional model to describe how education can contribute to *community cultural wealth* (Yosso, 2005). Yet another is one's ability to critically engage society (Dewey, 1916). In fact, in an attempt to (re)turn to broader notions of success, researchers, especially those who study Hispanic Serving Institutions (HSIs) have called for an examination of civic mindedness and engagement (Alcantar, 2014; Cuellar, 2021; Garcia, 2018; Garcia & Cuellar, 2018; Garcia & Koren, 2020; Hurtado et al., 2012).

We therefore argue that expanding our notion of success in higher education is crucial for fostering an alignment with students' values and principles, specifically with regards to using their education for social change (Perez et al., 2010). In the short term, the failure of universities to support these understandings of success could result in invisibilizing Latinx students'

experiences and justifying budget cuts to supportive academic programming for failure to meet the markers of traditional notions of success. In the long term, one of the consequences could be the obstruction of greater collective and societal well-being. Therefore, redefining success is important for greater institutional accountability toward underrepresented and misrepresented students.

Redefining success particularly matters in the context of HSIs. HSIs are higher education not-for-profit institutions that enroll at least 25% Latinx students. A campus that enrolls at least 25% Latinx students and 50% low-income students/first-generation to college students is also eligible to compete for Title V federal funding (Núñez et al., 2016). There are many types of HSIs; institutions range from community colleges to Research 1 universities, both public and private. Unlike Historically Black Colleges and Universities, or Tribal Colleges and Universities, many HSIs have their designation based on demographic shifts in their states and subsequent student bodies, as opposed to beginning with a mission to support Latinx students. Indeed, many public HSIs are historically white institutions (HWIs) and may still be predominately white (PWIs). Yet it is also the case that HSIs can serve a plurality of students of Color and low-income students (Núñez et al., 2016). Although HSIs can serve students from all demographic backgrounds, an explicit discussion about race and ethnicity that centers Latinx experiences within an HSI context can also serve additional groups of students of Color and first-generation students (Reguerín et al., 2020). It would be incorrect and inappropriate to argue that focusing exclusively on Latinx student experience will, by proxy, make the campus more responsive to Black, Indigenous, Southeast Asian American students, and so forth, but it is also the case that race-forward discussions around Latinx student experiences can begin a discourse around equity

that moves away from a color-evasive[4] or race-neutral framework; this is essential because so-called neutrality conceptualizations keep structures of white supremacy intact (Garcia & Koren, 2020; Reguerín et al., 2020). Moreover, Latinx and Black students have more in common with each other when it comes to community engagement than they do with white students, although they are not homogeneous (Littenberg-Tobias & Cohen, 2016).

The goal of this paper, therefore, is to propose a measure of student success that is consistent with conceptualizations as described by underrepresented and misrepresented students, but applicable to all students at the institution. In this paper, we focus on conceptualizations of success that are based in the values of Latinx and first-generation college students since this study takes place at an HSI. We endeavor to center the experiences of Latinx students, knowing that this is a complicated and complex process at HSIs for several reasons. First, most HSIs were not founded on an explicit educational mission to address racial and ethnic inequities. Second, there is great cultural diversity within the broad social category of Latinx (Alcantar, 2014). For example, people who are Latinx in the US might have connections to the land before it was colonized as the US, or they may be children of refugees who left Central American countries due to US-backed civil wars, or they might have another history. They might identify as white, Black, Brown, or some combination. They may have current connections to one or more of 33 Latin American countries, each with their own unique cultures, histories, and contexts. Therefore, any quantitative measure will serve as a relatively blunt instrument even if the intention is to be more culturally relevant than measures grounded in white supremacy (Cuellar, 2021). Third, many HSIs also serve a critical mass of students of Color and first-generation to college students who are not Latinx (Garcia & Koren, 2020). In this way, measures

[4] Formally named “color-blind” (Connor et al., 2016).

that center Latinx student experiences can help move campuses toward better serving their Latinx students and fulfilling their potentially new HSI servingness mission (Garcia & Koren, 2020). Additionally, this can lead to broader conversations around supporting low-income students and students of Color more broadly.

Centering Latinx Students in Conceptualizing Student Success

Although the literature on college student success is vast, there are few studies that examine how Latinx college students conceptualize their success. These studies often draw from Chicana Feminist Gloria Anzaldúa's (1999) concept of the *Borderlands*. The Borderlands[5] refer to a psychological inner struggle of people encountering and navigating two or more contradictory cultural worlds. Simultaneously being in two cultural worlds means calling on different and sometimes contradictory forms of cultural capital as one moves across and is moved across physical and internal Borders, some of which are "unnatural boundaries" designed to imprison women and people of Color (Anzaldùa, 1999, p. 41). Borderlands as a conceptual framework makes sense because Anzaldúa (2002) was interested in what it meant to navigate the predominantly white university as a Chicana. Borderlands has implications for how success is understood. In this framework, a sense of student achievement and success is interconnected with the relational pursuit of well-being and social justice for the collective, namely students' home communities. What counts as a home community can be ambiguous and complex in the face of U.S.-backed wars in Central America, economic policies designed to extract resources from Latin America, climate change refugees, etc.

---

[5] According to Anzaldúa (2015), "Borderlands" is capitalized to refer to the psychological inner struggle of people, and to distinguish it from the physical "borderlands," the region on both sides of US-Mexico border. For this reason, we capitalize Border when referring to psychological inner struggles brought on by context.

Borderlands allows researchers and educators to see the ways in which underrepresented and misrepresented students challenge white supremacist and colonial ways of thinking and learning, which stagnate progress and transformation within society. Colonialism creates binaries that maintain rigidity of thought, such as masculine/feminine, objective/subjective, reason/emotion, mind/body, or academy/home (Lugones, 2003). Academia perpetuates these binaries and borders, which privilege the masculine, objectivity, reason, the mind, and academic spaces, to the exclusion of the marginalized Other (Figueroa, 2014). In traversing these binaries and borders, students in the Borderlands develop a mestiza consciousness greater than the sum of its parts. This consciousness creates a flexible hybrid third space that allows for divergent thinking characterized by "movement away from set patterns and goals and toward a more whole perspective, one that includes rather than excludes" (Anzaldúa, 1999, p. 101).

Borderlands as a conceptual framework has been used to empirically examine student success through ethnographic methodologies. One study examined how two Latinos in North Carolina – one in college and one in law school – defined success (Carrillo, 2016). Both men highlighted: (1) navigating oppressive college spaces, (2) straddling cultural contexts and expectations from their home communities and the university in order to use aspects of both to help them make progress on their social justice goals, and (3) struggling for psychic, cultural, and spiritual wholeness (Carrillo, 2016). Furthermore, both discussed their hybrid identities and cultural community knowledges in ways that allowed them to work against hegemony to keep their home communities centered in their studies. Carrillo (2016) linked these results to Anzaldúa's Borderlands because of the connections to hybridity and the necessity of navigating discordant spaces, namely the university and home communities.

Borderlands has also been used as an orienting framework for understanding the experiences of success for Chicana students, most of whom were first-generation to college. These students balanced disparate contexts such as the home community and university by drawing from *pedagogies of the home*, or learnings acquired from the home community (e.g., biculturalism, bilingualism, commitment to community; Delgado Bernal, 2001). Participants shared that they did not see their education as situated in individual success, but rather viewed it as a relational collaboration with their home communities. They observed how their biculturalism gave them a perspective that members of the dominant culture might not have in relation to course material. Furthermore, their commitment to their communities served not as a hindrance, but as a driving motivator for academic engagement and progress. This research highlights how students' relationships and cultural knowledges are under-acknowledged resources to succeed at the university.

Subsequent studies expanded upon pedagogies of home and observed that these pedagogies continue to be pertinent for the success of Latinx college students (Garcia, 2018; Killoren et al., 2017; Luna & Martinez, 2012), and take different forms relevant to the specific cultural traditions of their home communities. For example, through oral histories of four second-generation Puerto Rican families, family members shared that they were able to draw upon cultural traditions of speaking with pride and without hesitation to engage with teachers, think critically, and advocate for social justice. Furthermore, they were able to complicate their understanding of the privileges associated with being second-generation and identify ways in which barriers persisted at the individual and institutional level. This provided a foundation for continued social justice praxis, strengthened by an intergenerational commitment to

communities. In this way, family relationships fostered success within the academic setting, beyond the sharing of institutional knowledge (Garcia, 2018).

Such studies suggest that for Latinx students, maintaining and fostering healthy relationships with home communities while transgressing the Borders of the university provide invaluable resources for success (Alcantar, 2014). These resources are forms of community cultural wealth, wherein students of Color draw on aspirational, social, navigational, and familial capital from their communities of origin to survive in oppressive, exclusionary spaces (Yosso, 2005). Moreover, beyond simply obtaining good grades, having a relationship to and being able to navigate multiple contexts (i.e., home and the university) can foment a commitment and ability to engage in social change efforts.

Balancing home and school worlds can be especially important for social change efforts. (Cervantes-Soon, 2016). High school girls in Juarez reported that to be successful meant to be smart, and being smart included several facets. One facet was understanding sociopolitical contexts, including their positionality as young women at the border. Others were to be bold in the face of stigma, and to navigate oppressive and hostile contexts, as well as to self-motivate in the face of low expectations. In order to make movement on their social justice goals, these girls combined lessons from school with what they were learning from peers, activists, and other women in their lives, such as their grandmothers, mothers, and sisters. Like Carrillo, to describe this type of smartness, Cervantes-Soon (2016) drew on Anzaldúa's Borderlands because these girls' notions of success were connected to the in-between spaces that they inhabit, which included their ability to motivate themselves in the face of dominant discourses about them, and to learn from the past to facilitate their success. In other words, these girls were able to thrive and contribute to social change although they were in-between worlds.

These studies offer a solid theoretical and empirical basis for examining Latinx students' definitions of success. Moreover, these definitions include drawing from knowledges of both the home and school to achieve social justice. As indicated in these studies, success for various Latinx students meant: reflecting and learning from the past to avoid future mistakes (Cervantes-Soon, 2016), drawing on knowledge from one's history or culture (Carillo, 2016; Cervantes-Soon, 2016; Garcia, 2018; Killoren et al., 2012), drawing on school resources to address social justice in the community (Cervantes-Soon, 2016), and feeling as if one can become a contributor to social change (Cervantes-Soon, 2016; Garcia, 2018), to name a few. This type of expansion is consistent with a call from Alcantar (2014) to broaden understandings of civic engagement to be more inclusive of experiences within Latinx cultural communities.

We sought to use the Borderlands conceptual framework and these studies to expand notions of success in alignment with Latinx students' understandings. Because the Borderlands framework was developed from a Chicana/Latina standpoint, this framework speaks strongly to this demographic. Yet, the core ideas within this framework have relevance to other underrepresented and misrepresented students who have been subjugated by the rigidity of academia's constructed borders, or have had to confront other boundaries created by oppression (e.g., see DuBois' 1903 concept of Double Consciousness, or Collin's 1986 work on the standpoint of Black feminists). We found Borderlands a compelling framework to construct a scale that would capture the way students at an HSI -- including not only Latinx students, but students at a campus where the majority were students of Color and low income or first-generation to college -- navigate contradicting contexts to redefine success and contribute to social justice efforts.

Specifically, we chose Borderlands as a psychological conceptual framework for three main reasons. First, to call it Borderlands recognizes the ways in which many students move back and forth across the cultural, linguistic, and status Borders of the university, continually negotiating rule structures for survival, and sometimes as a way of life. The students whose lives we want to honor are at the precipice of this boundary, and their experiences of it are what we hope to recognize and understand.

Second, the perspectives and realities of institutionally misrepresented students are imbued with constant, irresolvable contradictions and multiplicities. This misrepresented positionality creates a theory of being, moving definitions of success that is consistent with Borderlands. Indeed, Borderlands is about crossing over, transgressing socially constructed boundaries and limitations, balancing contradictions, and the cross-pollination of cultural worlds.

Third, Borderlands refuses unilinear logic, and insists instead on a “tolerance for ambiguity,” or contradictions, in the development of a mestiza consciousness (Anzaldúa, 1999, p. 79). The Mestiza is a descendant of both the Indian and the Spanish colonizer. From this in-between space where the Mestiza does not neatly fit into one category or the other, that is, neither Indian nor Spanish but both, there is a potential for an awareness of oppression, or mestiza consciousness. An aspect of mestiza consciousness is *la facultad* (ability/capacity/a way of knowing based in lived experiences). Anzaldúa (1999) wrote,

> those who are pounced on the most have it the strongest- the females, the homosexuals of all races, the darkskinned, the outcast, the persecuted, the marginalized, the foreign [...] we are forced to develop this faculty so that we’ll know when the next person is going to slap us or lock us away [...] It’s a kind of survival tactic that people, caught between the worlds, unknowingly cultivate” (Anzaldúa, 1999, p. 60-61).

Thus, *la facultad* refers to a greater awareness of power structures that emerges from being positioned in an in-between marginalized space.

Ironically, the "psychic restlessness" (Anzaldúa, 1999, p. 78) of continual contradiction likely perpetually plagues the very students who share these experiences, especially as young adults who are frequently experiencing intersecting exclusions. A Borderlands scale must therefore fuse perception of individual self-agency, or commitment to social change, in relation to at least one, and sometimes two domains of power (e.g., whiteness and neoliberalism). Furthermore, items must ask students to assess their own location or ability to act in relation to opportunities for change, belonging, mattering, engagement, power, and a sense of purpose or meaning in relation to others, including family, community, history, and the future. With this in mind, we set forth to create a Borderlands scale that would enable the assessment of the fusion of personal agency with one and even two other domains of power: university, knowledge, and/or some other social entity larger than one's self. Notably, we included dimensions of family, community, culture, and history in items asking about students' sense of ability to define terms or act.

The original Borderland items are in Table 1. We had some hypotheses about how Borderlands would correlate with additional measures we collected to assess psychometric validity. We discuss these additional measures in the method section, and then outline our hypotheses. We recognize this unconventional ordering, but followed it for flow reasons.

Method

Context

Reflexivity

The authors of this paper are (former) first-generation college students (1, 2), transfer/re-entry students (1), people of Color (2, 3), women (1, 2), alumni (1, 2) or current graduate students (3) of the HSI under study, and/or ladder rank faculty (1, 2) at HSIs in the discipline of psychology. These positions matter in terms of how we enter and understand this work. Specifically, I (Regina) experience straddling different definitions of success within and between my white working-class cultural community and academe. As a Navy veteran and a first-generation transfer/re-entry college student, I was in tears three times a week in my first year of graduate school because I was certain I would be asked to leave; I did not feel successful. Yet, as someone who is now a social-community psychologist who studies educational equity and achieved full professor status in her 40s at her now-HSI alma mater, I am a successful academic. And, as a divorced childless woman, my success in my home cultural community is suspect. Yet, as an aunt who paid a substantial amount of her nephew's college tuition, and as someone who can still "talk like a normal person" according to my pops, who is a first-generation high school graduate, I carry some community markers of success.

I (Christine) identify as a mixed race, white privileged, first-generation Salvadoran Latina who grew up in a single-parent, working class home. When I was in undergrad I was given a life vest by the McNair Scholars program at Claremont Graduate University (CGU). Without this program and the amazing mentors I encountered, I am not sure where I would be today. I was part of the last cohort of McNair scholars at CGU. To my knowledge, the funding was cut because the program did not meet the federal standards of success, which meant that not enough McNair scholars were pursuing doctorates upon completion of the program. And yet, I witnessed this program offer an experience for cohort members to discover and pursue their passions in other careers that serve important purposes. The mentors I encountered in this program showed

me care and love, and gave me some of the tools to combat the elitism, racism, arrogance, and toxicity of academia. This is the unspoken success of the McNair program at CGU that never got counted- learning to preserve the soul and practice other ways of being that challenge the lovelessness and soul murdering rampant at every level of the university.

I (David) identify as a Black cisgender man, raised in a middle-income home in the San Francisco Bay Area, who is parenting two biracial sons. I feel an intense responsibility to my family and my community of origin. As a son of now deceased Black parents, I want to live up to the legacies of my ancestors, who strived through incalculable difficulties to create the opportunities I am now able to access. To continue this legacy, I prioritize quality time with my sons and working for them to have access to equitable resources, opportunities, and safety. I hope for the same for the transition age young people of Color I work with in my community. These hopes and dreams motivate my academic engagement and, simultaneously, make progress difficult. To focus exclusively on academics, in a university that has not been constructed for my presence, at the expense of those hopes and dreams would be psychologically and emotionally harmful to me. I straddle the definitions of success associated with graduate studies and the definitions of success that mark a good father, husband, and mentor. Yet, all of these worlds give me a desire and assets to succeed in the other.

Campus

All students who participated in this study attended the same HSRI (Hispanic Serving Research Institution) on the west coast; this historically white institution achieved HSI designation in the early 2010s. The plurality of students are now students of color, with over 50% also being classified as low-income or first-generation to college. The 6-year graduation rate is over 75%. This campus' Carnegie classification designates it as having a very high

undergraduate population and very high research activity. Using a designation created for HSIs, the campus is also classified as a big systems 4-year institution (Núñez et al., 2016). It is a residential campus and draws few students from the surrounding area. According to the US Census Bureau, the county in which the university is located is considerably whiter (56.2%) and wealthier (median household income is $90,000) than the college students. Many county residents also have a BA or higher (42%). The majority of campus faculty and staff are also white (65% ladder rank and 72% lecturers; 58% staff). This context creates tensions for many students, who may not expect to be navigating white middle class spaces at an HSI. Moreover, many students report that the surrounding community is unwelcoming to students of Color and first-generation college students. This trend has been an ongoing issue for students of Color and first-generation colleges students at the university, even prompting a substantially detailed Reddit thread in which students describe their local experiences, the history of the city as a sundown town, and the culture shock many had experienced upon moving to the area (Reddit thread, 2021).

Item Development

A lecturer, a white woman who had been teaching primarily underrepresented and misrepresented college students for over 20 years in Latinx Studies, Education, and in an ethnic studies interdisciplinary program at this HSRI, wrote the items. As a socio-cultural anthropologist, she was familiar with the literature, which matched her years of observational experience. The first author vetted and edited the items. Another expert at a different institution, with a background in educational psychology, educational equity, and psychometrics, reviewed items and determined the response option scale. Finally, a group of researchers and practitioners

who focus on student success at public universities reviewed the items for face validity. As a reminder, all initial items are in Table 1.

Participants

Two hundred fifty students participated in this survey. The sample included first (39.2%), second (25.6%), third (14.4%), and fourth or fifth year (19.2%) undergraduates. Most of the participants were women (71.2%), and the sample was ethnically diverse, with the largest group being Latinx (41.6% Latinx, 24% Asian/Asian American, 23% white, 7.2% African American/Black, 1.6% Pacific Islander, and 0.4% Native American). The majority of students (59.2%) also identified as first-generation college students and were served by the campus Education Opportunity Program (56%), were Pell grant recipients (55.7%), and were in-state students (92%). The UC Santa Cruz Institutional Review Board approved this study, and all participants were treated in accord with APA ethical standards.

Design and Procedure

This study was part of a larger data collection, which drove the participant recruitment process. Students were recruited either because they were a first-year student, or because they were enrolled in a service-learning class. Although we do not know why students enrolled in the service-learning courses, it is the case that the campus has a practice general education requirement, and a service-learning course is one possible way to fulfill the requirement. No service-learning course was tied to a specific major, and as such, each course was designed to be open to any student/major. The first-year students were recruited via email beginning in week 4 of their first quarter on campus (meaning that they had been living on campus for five weeks). They received an email inviting their participation, with a link to the survey. After four attempts to encourage their participation over a two-week period, the response rate was 36%. For those

enrolled in a service-learning course, they were encouraged to fill out the questionnaire by their instructor during the last week of the quarter. They were given the option of filling it out online or via pen(cil) and paper. For this group, the response rate was 58%.

We had information about majors for students enrolled in service-learning classes only. The majority of students were in social science majors (62.11%), but also came from all academic divisions of the university (14.74% from humanities, 9.47% from engineering, 8.42% from physical and biological sciences, and 5.26% from arts). See Table 2 for demographic information regarding students enrolled in a service-learning class compared to first year students, and how these demographics compare to the overall campus. Chi-squared tests indicated no meaningful differences when comparing those who did and did not participate in service learning by any demographics except gender. More women filled out a questionnaire in the service-learning group. All standardized residuals, however, were below 1.96 for gender comparisons. The overrepresentation of women is likely related to who enrolls in service-learning courses. Indeed, research indicates women are more likely to participate in these opportunities (Fredericksen, 2000).

We conducted our analysis with our entire sample rather than only with Latinx students. In addition to student outcomes, we also view the Borderlands scale as a way to assess institutional accountability. An HSI needs to be accountable not only to Latinx students, but also other students of Color and first-generation to college students. Indeed, at some HSIs, as is the case with this institution, the majority of students come from underrepresented or misrepresented groups. We developed one scale to be given to all students because there are some similarities across these groups. Moreover, Anzaldúa reminds us that Borderlands are present any time two

cultures grate against one another. Finally, we find it unlikely that most institutions would use different measures for different social identity groups.

Materials

Borderlands Scale

To create the Borderlands scale, we followed the procedures outlined by Worthington and Whittaker (2006). First, we discerned what we wanted to measure. Second, we created items. Drawing from key notions within Anzaldúa's Borderlands, items were written to examine if students were critically examining power structures, contextually co-narrating the self in a way that resisted hegemony and drew on their agency, and mobilizing a multiplicitous positionality toward social change. The initial scale consisted of 14 items, with a five-point response scale ranging from "never" (1) to "always" (5). Only endpoints were labeled because responses are more likely to be interval when this is the case (Reips & Funke, 2008), and an interval scale is preferable when engaging in parametric analytic statistical procedures (Casper et al., 2020). Third, we administered the items with a small number of additional scales so that we could assess for convergent and discriminant validity. These additional scales are described next, in more detail than is typical, to explain why these measures were chosen.

Psychometric Validation Measures

Thriving quotient subscales. As with any scale construction, a new scale should be assessed against existing scales that have demonstrated psychometric validity. With this in mind, we briefly describe how success is conceptualized in one set of scales that is well established and shares some common features with Latinx student conceptualizations of their success: thriving (Schreiner, 2010a). Thriving is a type of well-being similar to flourishing; rather than being the absence of problems, thriving is the presence of emotional and psychological wellness

(Schreiner, 2010a). From a measurement perspective, it is worth noting that thriving has been assessed and refined through empirical examination of over 25,000 undergraduates from over 45 college campuses (Schreiner, 2010a; Schreiner et al., 2013). Yet, the majority of students Schreiner has surveyed are white (70-80%) and continuing generation college students (73-79%) (Schreiner, 2010a; Schreiner et al., 2013). Nevertheless, we chose this conceptualization to build from for three main reasons. First, it has been empirically validated. Second, thriving considers success to be not only the absence of problems, but also the presence of something positive, which makes sense from a student development perspective. Third, thriving is state-like, not trait-like, which means it can be facilitated through institutional/campus structures, practices, and procedures (Schreiner, 2014); we were interested in developing a measure that could be used to hold institutions accountable.

In formulating her measure, Schreiner observed that there is more to a fulfilling college experience than mere completion or high grades (Schreiner, 2010a; Schreiner, 2013). Rather, the quality of engagement is important. This includes the degree to which students are able to meaningfully connect with course material, develop close relationships with others, and retain a positive self-evaluation in the face of difficulties (Schreiner, 2010a). The studies regarding how Latinx students narrate success identified the ability to navigate everyday challenges, the importance of relationships and support from friends and family, and the pursuit of liberation as central to their definitions of success. We thought that these concepts were best captured in three thriving quotient subscales: academic determination, social connectedness, and diverse citizenship. The thriving quotient assesses psychological, social, and academic factors (Schreiner et al., 2013). The response options follow a Likert-type scale and range from 1 (strongly disagree) to 6 (strongly agree). We describe the three subscales next.

Academic Determination. Academic determination captures the behaviors and attitudes of students in the face of the challenges they experience in their academic pursuits. It consists of four primary aspects: investment of effort, self-regulation, environmental mastery, and goal-directed thinking (Schreiner, 2010a; Schreiner, 2010b). Investment of effort entails the degree to which students feel that they can influence outcomes by the exertion of effort (consistent with a growth mindset), as opposed to outcomes being determined by static internal traits (consistent with a fixed mindset) (Schreiner, 2010b). Self-regulated learning suggests the development of strategies for addressing the difficulties of academia, such as honing study skills or awareness of where to seek support (Schreiner, 2010b). Environmental mastery entails the development of skills, such as time management, that enable the student to navigate these multiple obligations and gain increased control over outcomes (Schreiner, 2010b). Finally, goal directed thinking encompasses a student's ability to identify goals and invest sustained effort in pursuit of those goals (Schreiner, 2010b). This focus on goals and subsequent energy in the pursuit of those goals could also be thought of as hope (Schreiner, 2010b).

Based on this understanding, this five-item subscale examines the individual's motivation, effort, efficacy, and time regulation. Sample items are, "I am confident I will reach my educational goals." and "Other people would say I'm a hard worker." Cronbach's alpha was .67.

For college students at an HSI, context is often broader than that captured by the thriving quotient with respect to academic determination. First, environmental mastery, while accounting for a variety of challenges, seems focused on a single context (i.e., doing well in school) and therefore does not account for conflicting goals. This single context perspective does not consider the importance of interaction with others when formulating and pursuing goals (Bhatia & Ram, 2001). Indeed, the college experience includes many other challenges outside of

academics, particularly for Latinx college students. They may also be balancing other concerns such as employment, family responsibilities, or extracurricular activities. Specifically, individuals must often balance their needs with the needs of their community, particularly given the oppression faced by home communities (Carillo, 2016; DeAngelo et al., 2016). As they participate in multiple contexts, their survival is often contingent on their ability to improvise and to draw on resources from multiple sources (Carrillo, 2013; Chun et al., 2016).

Social Connectedness. Social connectedness includes developing relationships on campus where students feel like they matter to others (i.e., healthy relationships), and feeling accepted and valued on campus (i.e., sense of community; Schreiner, 2010c). Mattering to others includes feeling appreciated and understood, and receiving social support. For students to feel valued and accepted on campus means feeling part of something bigger than themselves, having a support network, being committed to growth, and feeling like they can get their needs met (Schreiner, 2010c). The building blocks of social connectedness include students feeling like they are members of a community, having positive interactions, being emotionally connected, feeling like their voices are heard and their contributions matter, and collaborating on common goals (Schreiner, 2014).

This six-item subscale assesses the level of support and connection the student experiences. Sample items include, “I don’t have as many close friends as I wish I had” (reverse coded), and “I feel like my friends really care about me.” Cronbach’s alpha was .84.

Context also matters when considering social connectedness. The thriving quotient social connectedness subscale, however, focuses solely on friendships. Yet, for college students at an HSI, feeling and being socially connected is likely broader than friendship groups. A measure of social connection should therefore include family and home communities because multiple

cultural worlds are usually at the forefront and often implicated in how these students navigate the university, especially for Latinx students (Cervantes-Soon & Carrillo, 2016; Covarrubias & Fryberg, 2015).

Diverse citizenship. Diverse citizenship includes two aspects: (1) being open to and valuing others' opinions and ideas, which includes wanting to interact with people from backgrounds different from the student's own (i.e., openness to diversity), and (2) wanting to -- and believing one can -- make a difference in the world (i.e., citizenship; Schreiner, 2010c, p. 8). Schreiner included this diverse citizenship factor because students discussed the importance of doing for others and not only for themselves (Schreiner, 2010c). Students who were open to diversity sought opportunities to interact with people who had different backgrounds or perspectives from themselves. This process facilitated their desire to engage in social justice work and helped them develop the mindset that they had a responsibility to make a positive change in the world.

This six-item subscale assesses students' openness regarding others, their desire to be change agents, and their perceptions of their ability to be change agents. Sample items include, "It is important to become aware of the perspectives of individuals from different backgrounds," and "I know I can make a difference in my community." Cronbach's alpha was .76.

Another way in which context matters is when we consider what it means to be open to diversity, one of the foundations of diverse citizenship. Because of structural racism, it is often the case that only white people can avoid being open to the perspectives and ideas of those in communities of Color, due to lack of contact (e.g., de facto segregation and white flight) or willful ignorance (Gutiérrez y Muhs et al., 2012). Moreover, white people, especially white middle class people, are over-represented in institutional positions of power (Anthony, 2012; McIntosh, 1988). Subsequently, white middle class cultural norms dominate many institutional

spaces, including in higher education (Ellison & Langhout, 2016; Stephens et al., 2012). Therefore, Latinx and first-generation college students likely cannot avoid learning about white middle class cultural groups' ideas, norms, and values (i.e., hegemony). Subsequently, the concept of diverse citizenship can easily be (mis)understood as a form of acritical multiculturalism, especially when the focus is on openness rather than fomenting socially just change. Perhaps for underrepresented and misrepresented college students, especially Latinx college students, their goals for engaging citizenship are more about being able to effectively act and create change within the varying contexts in which they operate, and less about being open to hegemonic ideas.

Conventional high school achievement. Conventional measures of high school achievement were assessed by examining high school GPA and a SAT composite score, as reported from formal records provided to the university. High school GPA was examined rather than college GPA because some students were in their first term at the university.

Hypotheses

We hypothesized that Borderlands would positively correlate with all three thriving quotient subscales, as we chose them precisely because they captured some aspects of how Latinx students discussed success. Furthermore, we hypothesized the correlation would be stronger between Borderlands and diverse citizenship than it would be between Borderlands and academic determination or social connectedness. We made this determination because Borderlands and diverse citizenship are explicitly about power and social change. We thought the relation would be weaker (although still strong) to academic determination and social connection because both scales tend to focus on one aspect only (e.g., connection to friends), which is inconsistent with the context and daily lives of college students at an HSI.

We also included measures to assess discriminant validity. Although we hypothesize positive correlations between Borderlands and these three subscales of the thriving quotient, we also hypothesize no significant correlation between Borderlands and high school GPA or composite SAT score. High school GPA and SAT scores show gaps in so-called performance based on race, ethnicity, and social class (Jaschick, 2017; Palardy et al., 2015; Sutton et al., 2018). A measure outside of structurally white ways of assessing success should demonstrate no correlation – positive or negative -- with racist and classist ways of defining success.

Missing data

The questionnaire took approximately 20 minutes to complete, and 41 participants did not finish it, so their data were discarded because they did not fill out a single item of the potential Borderlands items, which were at the end of the questionnaire. Eleven students were missing too many items per scale (e.g., more than three items), so their data were excluded too. For the remainder of the sample, to assess for patterns of missing data, we followed the procedure outlined by Schlomer et al. (2010). The following missing data description is for the remaining 198 participants. For the academic determination scale, there were 3 missing data points out of 990. For diverse citizenship, there were 5 missing data points out of 990. For social connections, there were 3 missing data points out of 1,188. Finally, for Borderlands, there were 3 missing data points out of 1,782. Due to the small amount of missing data, and because we were interested in scale development, we used listwise deletion, so that we could treat all scales (or presumed scales) the same way. Listwise deletion is appropriate when there are few missing items, and often introduces less bias than imputing items, especially when the items are not missing at random (Allison, 2002).

Data Analytic Plan

To psychometrically examine the proposed Borderlands scale, we randomly divided the sample in half and conducted an exploratory factor analysis on half of the data, as recommended by Worthington and Whittaker (2006). Once we were satisfied with the factor structure, we assessed the structure on the other half sample using confirmatory factor analysis. The CFA assessment on the other random half sample enables a quasi-independent examination of the factor structure. Specifically, the CFA ensures the factor structure model fits another set of data that the initial model was not maximized against due to the exploratory nature of the procedures. To increase the stability of the results, we then re-combined the sample and re-ran the confirmatory factor analysis. Finally, we assessed the new scale against other measures to examine convergent and discriminant validity. All convergent and discriminant validity assessments were conducted with the full sample.

Results

We conducted an exploratory factor analysis, using principal axis factor analysis on a random half sample. In all cases of scale development, Worthington and Whittaker (2006) recommend beginning with exploratory factor analysis rather than confirmatory factor analysis. The Kaiser- Meyer-Olkin (KMO) measure of sampling adequacy was .80, indicating factor analysis was appropriate for these data, as the value was above .60 (Tabachnick & Fidell, 2007; Worthington & Whittaker, 2006).

With respect to dimensionality, we used three techniques to help us discern the factor structure and retention: examining eigenvalues, the scree plot, and interpretability (Worthington & Whittaker, 2006). There were four factors with eigenvalues above one, and the scree plot showed elbows at factors two and three. When examining the EFA factor matrix with no dimensional constraints, items loaded highly on the first factor or else did not have strong

loadings on a single factor. Removing items before establishing the number of factors can reduce the number of factors retained (Worthington & Whittaker, 2006). Therefore, before removing items, we constrained the exploratory factor analysis to a two-factor solution, using a promax rotation to account for correlated factors. The second factor was simply the few negatively worded items, and one of these factor loadings was low (.34). For this reason, we deleted the negatively worded items and re-ran the EFA. In this case, the scree plot showed a clear elbow at the second factor, indicating a one-factor solution. We re-ran the EFA, constraining the analysis to a 1-factor solution. Two more items had low loadings (i.e., $< |.4|$), so we dropped them as well (Worthington & Whittaker, 2006). In the end, we had a 9-item scale. See Table 3 for the retained items.

With the retained items, we ran a confirmatory factor analysis on the other random half sample in MPlus (Muthén & Muthén, 1998-2011). We used the default settings in MPlus, which fixes the first item to 1, and frees the error variances, intercepts of the manifest variables, and variances of the latent variables. Moreover, the default program sets the co-variances between manifest variable errors to 0. Additionally, the method of estimation was maximum likelihood. In order to help discern the fit of the model, we examined multiple indices since no single index is sufficient to assess model fit. We calculated the chi-squared to degrees of freedom ratio, using a cut-off of 2 as a sign of a good fit (Kline, 2016). For the other fit indices, there is no single cut-off, although there are guidelines. The Comparative Fit Index (CFI) should be above .90, the Root Mean Square Error of Approximation (RMSEA) should be at or below .10, and the Standardized Root Mean Squared Residual (SRMSR) should be at or below .10; more conservative guidelines are .95 (CFI), .08 (RMSEA), and .06 (SRMR; Kline, 2016; Weston & Gore, 2006). The fit statistics indicated that this was a good fitting model (e.g., $\chi^2/df = 1.63$; CFI

= .94; RMSEA = .08 (CI: .03, .12); SRMR = .06). All standardized factor loadings were between .52 and .71 (see Table 3). We therefore retained the items and assessed Cronbach's *alpha*, which was also good, at .84. Table 3 also shows the unstandardized and standardized factor loadings for the scale, as well as the variance accounted for, based on the confirmatory factor analysis. Table 4 includes descriptive statistics for all constructs.

Considering construct and discriminant validity, Table 5 provides the correlation matrix for the Borderlands scale and the three thriving scales, as well as high school GPA and composite SAT scores. As expected, Borderlands correlated positively with academic determination (r = .45, $p < .001$), social connectedness (r = .46, $p < .001$), and diverse citizenship (r = .58, $p < .001$), with the highest correlation between Borderlands and diverse citizenship, which was also expected. To assess the strength of the correlation, we employed concor, which uses R, to analyze for strength differences in the correlations (Diedinhofen & Musch, 2015). The correlation between Borderlands and diverse citizenship was stronger than between Borderlands and: (1) academic determination (Steiger's modification of Dunn and Clark's z using average correlations z = 2.27, p = 0.01; Zou's CI: .02, 0.25), or (2) social connectedness (Steiger's modification of Dunn and Clark's z using average correlations z = 1.89, p = 0.03; Zou's CI: .00, 0.26). Yet, note that the p-value indicates rejecting the null hypothesis, but the lower bound of the confidence interval for the difference in the strength of the correlation between Borderlands and social connectedness is 0, indicating this result is less clear as the difference in the strength of the correlation between Borderlands and academic determination. There was no significant correlation, however, between Borderlands and high school GPA (r = -.10, p = .20) or composite SAT score (r = -.11, p = .16), also as expected.

A way to consider institutional accountability and servingness for an HSI is to have students report higher Borderlands scores as they progress in their studies. We ran a regression for non-transfer students to see if there was a relation between year in school and Borderlands, and the results were not significant ($F(1, 179) = 0.33$).

Discussion

Student success is an important consideration for those in higher education. Unfortunately, the definitions of student success most frequently discussed are consistent with whiteness and neoliberalism, prioritizing individual gain and individual responsibility. Our goal was to create a measure of success consistent with the scant literature on how Latinx and first-generation college students talk about success. The plurality of surveyed students were Latinx and first-generation college students. To better assess their hopes, dreams, and desires for college success, we created a new scale: Borderlands. Borderlands provides a novel approach to measuring some degree of the rich, varied, nuanced, multiplicitous, purposeful, and fused ways underrepresented and misrepresented students, especially Latinx students, describe their success (Carrillo, 2016; Cervantes-Soon, 2016; Killoren et al., 2017). Yet, scales typically do not provide the richness and nuance that can be collected through interviews, focus groups, and ethnographic methods. Although this is the case, we still were compelled to move forward with this project because it is unrealistic to assume that all campuses will regularly use qualitative methods to assess student experience broadly, or to assess institutional accountability. Campuses usually attend to what they can measure over time, so although we recognize the irony of developing a Borderlands scale, we think it is better than the alternative of measuring GPA, credits earned, and time to degree as the primary or only ways to assess student success and institutional accountability. In

this section, we summarize the results, discuss limitations and next steps, and provide some implications.

The Borderlands scale is unidimensional and interweaves social justice into the construct. In other words, social justice is not separate from how students resist a single story about them and instead narrate their multiplicitous identities when discussing their hopes and dreams for themselves, nor is it separate from how they balance numerous and heterogeneous expectations that they and their varied communities hold for them. This means that by conventional standards, some of the questions may appear semi-double barreled, but we view this as closely mapping on to the qualitative literature on success for underrepresented and misrepresented Latinx students (Carrillo, 2016; Cervantes-Soon, 2016; Killoren et al., 2017). Some, however, may view this as a limitation from a measurement standpoint. Further item refinement is therefore an area for future research.

We then examined how the Borderlands scale fit within the nomological network by assessing its correlation with three subscales of the thriving quotient: academic determination, social connectedness, and diverse citizenship (Schreiner, 2010a), as well as high school GPA and composite SAT scores. Considering convergent validity, we hypothesized that the Borderlands scale would be positively correlated with academic determination, social connectedness, and diverse citizenship, but to a greater degree with diverse citizenship. Academic determination and social connectedness had correlation values of .45 and .46 to Borderlands, respectively. The correlation was .58 between diverse citizenship and Borderlands. The relation between Borderlands and diverse citizenship was stronger than between Borderlands and academic determination. The results when comparing the strength of the relation between Borderlands and diverse citizenship versus Borderlands and social connectedness was slightly more mixed in that

the z-score pointed toward rejecting the null hypothesis, but the confidence interval began at 0, therefore including 0, which would be grounds for failing to reject that there was a difference in the strength of the relation. Therefore, we can be more confident in the difference in the strength of the relations between Borderlands and diverse citizenship versus academic determination, but must be more cautious when considering the strength of the relation between Borderlands and diverse citizenship versus social connectedness.

These differences in correlation make sense given the rationale of the Borderlands scale. The Borderlands scale measures how students are thinking about power, how they balance sometimes contradictory responsibilities of multiple contexts, and how they mobilize relationships and resources across contexts. As operationalized in the thriving quotient, academic determination is about individual student behaviors and attitudes while engaging in their academic pursuits, which is narrower. Furthermore, the Borderlands scale was designed to reflect the ability of students to mobilize the connections they have. The social connections scale reflects the degree to which connections to friends exist; because this is relational, there may be more similarity to the Borderlands scale than there is between academic determination and Borderlands. Although an individual's mindset and connections to friends are important, for underrepresented and misrepresented students attending an HSI, academic determination and social connectedness may include multiple aspects, such as one's ability to stay connected with those at home while developing new friendships in a culturally distinctive environment, or one's capacity to balance their needs with their family's. It is therefore important to also include scales of success that assess the straddling of two or more contexts.

Diverse citizenship as equitable, meaningful participation in a context requires a consideration of social positionality, which is fundamental when considering power because

power is relational (Hayward, 2000). The leveraging of this participation to fulfill responsibilities in all contexts in which the individual participates is facilitated by a sense of belonging and access to resources representative of personal experiences. Indeed, an inability to incorporate resources external to the university is counterproductive to the promotion of diversity. It is noteworthy that the diverse citizenship scale score mean was 28.40, with a potential range of 6-30 (or, if using an average score, was 4.73 out of 5). In other words, there was a likely ceiling effect for our students. The Borderlands mean, on the other hand, was 31.96, with a range of 9-45 (or, if using an average score, was 3.55 out of 5). Our students were not near the ceiling in this case, indicating room for the university to facilitate growth.

We also assessed the correlation between Borderlands and two conventional measures of academic achievement: high school GPA and composite SAT score. High school GPA and SAT are often correlated with race, ethnicity, and social class (Jaschick, 2017; Palardy et al., 2015; Sutton et al., 2018). Because people who are wealthy and white (and increasingly, people of East Asian descent) as a social group also have the highest scores, we interpret these measures as embedded in structures of whiteness, which makes them racist and classist. The Borderlands scale was designed to measure forms of success that are not tied to whiteness and neoliberalism, so we reasoned that there should be no correlation among Borderlands and high school GPA or composite SAT scores; we were correct in this reasoning. Indeed, a student might score high on Borderlands and be academically successful via conventional standards or not.

Finally, to consider institutional accountability, we examined if Borderlands scores increased as students spent more time on campus. In the case of this HSRI, the answer was no. This result could be instructive to the university, as it likely means that more attention needs to be given to understanding if and/or how social agency, social justice orientation, civic

engagement, and/or critical consciousness are being facilitated in a coherent and cohesive way within curricular and co-curricular offerings. Are administrators, faculty, staff, and students able to articulate how the campus facilitates these HSI-specific markers of success? If not, what changes need to be made in terms of policies, practices, and procedures?

Limitations

As with all research, this project also includes limitations. The response rates, especially for the first-year students, could have been higher. Although several studies have been published with similar response rates, we would have preferred a more robust sample. Beyond following Dillman (1978) procedures, as was done for this study, it seems important to develop new procedures that would be more successful in yielding higher response rates.

Another limitation is that our sample came from one campus only. It is important to assess the Borderlands scale on other campuses to determine its generalizability, as well as different types of HSIs given their variability. Samples should include largely Latinx students, but also higher numbers of other underrepresented and misrepresented groups, such as Southeast Asian and African American students. Our sample included Asian/Asian American (24%) and African American (7.2%) students, but these numbers were not high enough to assess if the factor structure was different for these groups. Although we based our theoretical framework on Anzaldúa's Borderlands (1999), we note some similarities with DuBois' double consciousness (1903) and feminist standpoint theory (Collins, 1986), in terms of having a foot in more than one world, being adept at reading situations, and working for social justice. We therefore think it worthy to assess if the scale structure is similar for specific minoritized ethnic and racial groups.

A third limitation is related to measurement. We did not include a more global measure of well-being in our data collection. Although it is possible to understand thriving as a form of well-

being, for construct validity purposes, it would have been beneficial to assess Borderlands against a more global well-being measure. It would have also been more appropriate to include a measure that centered the experiences of underrepresented and/or misrepresented students, especially to assess convergent validity, yet we were unable to locate such measures. Future research should include additional measures for assessing construct validity, and those measures should speak to experiences of underrepresented and/or misrepresented students. Moreover, the reliability of the academic determination scale was lower than we would have liked, at .67. We chose to keep the scale intact because alpha levels are related to the number of items per scale (Cortina, 1993), and at five items, we discerned the reliability was acceptable, especially since this scale has been used with tens of thousands of students and this scale was included to assess construct validity.

Implications

The results of this study indicate that the Borderlands scale captures certain aspects of previous conceptualizations of thriving. These conceptualizations of thriving, however, fail to account for the simultaneous participation of students in multiple contexts, as well as the vital nature of social justice to members of marginalized communities. Others interested in the study of thriving, while also attending to the multiple systemic barriers students from marginalized communities must navigate both in and outside of the university context, could use the Borderlands scale to think about the role of social justice within success.

Another group that might find this scale especially useful are those drawn to community engagement work. Institutions seeking to serve students who are systematically underrepresented, misrepresented, and pushed out of academic hierarchies, such as Latinx students, even at an HSI, may want to test the efficacy of their programs intended to support,

retain, and develop student talents. By asking underrepresented and misrepresented college students participating in community engagement programs, for example, whether they feel more successful on their terms after participating in a program, universities demonstrate accountability to these students and to broader populations in three ways. First, they may gain immediate feedback for local programming that better matches their intentions. Second, over time, they may gain better systemic insight into what kinds of turning points shape student pathways for better and worse. Third, they may be able to better define what it means to create productive universities, responsive to a changing world.

Conclusion

Structurally white and neoliberal definitions of success (such as time to degree and GPA) do not sufficiently incorporate the ways in which Latinx students defined success (Alcantar, 2014; Carrillo, 2016; Cervantes-Soon, 2016; Killoren et al, 2017). On the contrary, their definitions of success emphasized the importance of connection to their communities and the creation of social change as being central to the academic experience. Universities seeking to create an atmosphere wherein the needs and goals of underrepresented and misrepresented students are actively being met should expand their measures of success to incorporate the development of civic engagement for social justice. This is especially true for HSIs, such as the university in this study, which has a newer HSI servingness mission of serving underrepresented and misrepresented Latinx student populations. The Borderlands scale could serve as a measure of the university's ability to facilitate such success.

References

Abdul-Alim, J. (2012, April 12). Obama administration official touts 'critical role' of TRIO amid funding cuts. *Diverse Issues in Higher Education, 29*(5), 7.

Alcantar, C. M. (2014). Civic engagement measures for Latina/o college students. *New Directions for Institutional Research, 158*, 23-35. https://doi.org/10.1002/ir.20043

Allison, P. D. (2002). *Missing data: Quantitative applications in the social sciences #136*. Sage.

Anthony, C. G. (2012). The Port Hueneme of my mind: The geography of working class consciousness in one academic career. In G. Gutiérrez y Muhs, Y. F. Niemann, C.G. González & A. P. Harris (Eds.), *Presumed incompetent: The intersections of race and class for women in academe* (pp. 300-312). Utah State University Press.

Anzaldúa, G. E. (1999). *Borderlands/la frontera: The new mestiza* (2nd ed.). Aunt Lute Books.

Anzaldúa, G. (2002). Now let us shift…the path of conocimiento…inner work, public acts. In G.E. Anzaldúa & A. Keating (Eds.), *The bridge we call home: Radical visions for transformation* (pp. 540-581). Routledge

Anzaldúa, G. E. (2015). *Light in the dark luz en lo oscuro: Rewriting identity, spirituality, and reality*. Duke.

Bhatia, S., & Ram, A. (2001). Locating the dialogical self in the age of transnational migrations, border crossings and diasporas. *Culture & Psychology, 7*(3), 297-309.

Carrillo, J. F. (2013). "I always knew I was gifted:" Latino males and the Mestiz@ theory of intelligences (MTI). *Berkeley Review of Education, 4*(1), 69-95.

Carrillo, J. F. (2016). I grew up straight 'hood: Unpacking the intelligences of working-class Latino male college students in North Carolina. *Equity & Excellence in Education, 49*(2), 157-169. http://doi.org/10.1080/10665684.2015.1086247

Carpenter, A. M., & Peña, E. V. (2017). Self-authorship among first-generation undergraduate students: A qualitative study of experiences and catalysts. *Journal of Diversity in Higher Education, 10*(1), 86-100. http://doi.org/10.1037/a0040026

Casper, W. C., Edwards, B. D., Wallace, J. C., Landis, R. S., & Fife, D. A. (2020). Selecting response anchors with equal intervals for summated rating scales. *Journal of Applied Psychology, 105*(4), 390-409. http://doi.org/10.1037/apl0000444

Cervantes-Soon, C. (2016). "Mujeres truchas": Urban girls redefining smartness in a dystopic global south. *Race, Ethnicity and Education, 19*(6), 1209-1222.

Cervantes-Soon, C., & Carrillo, J. F. (2016). Toward a pedagogy of Border thinking: Building on Latin@ students' subaltern knowledge. *High School Journal, 99*(4), 282-301.

Chun, H., Marin, M. R., Schwartz, J. P., Pham, A., & Castro-Olivo, S. (2016). Psychosociocultural structural model of college success among Latina/o students in Hispanic-Serving Institutions. *Journal of Diversity in Higher Education, 9*(4), 385-400. http://doi.org/10.1037/a0039881

Collins, P. H. (1986). Learning from the outsider within: The sociological significance of Black feminist thought. *Social Problems, 33*(6), S14-S32.

Connor, D. J., Ferri, B. A., & Annamma, S.A. (2016). *DisCrit: Disability studies and critical race theory in education*. Teachers College Press.

Cortina, J. M. (1993). What is coefficient alpha? An examination of theory and applications. *Journal of Applied Psychology, 78*, 98-104.

Covarrubias, R., & Fryberg, S. A. (2015). Movin' on up (to college): First-generation college students' experiences with family achievement guilt. *Cultural Diversity and Ethnic Minority Psychology, 21*(3), 420-429. http://doi.org/10.1037/a0037844

Cuellar, M. G. (2021). Latina/o students as agents of change: The influence of cultural assets and college experiences. *Race Ethnicity and Education*, *24*(6), 789-809.

DeAngelo, L., Schuster, M. T., & Stebleton, M. J. (2016). California DREAMers: Activism, identity, and empowerment among undocumented college students. *Journal of Diversity in Higher Education, 9*(3), 216-230. http://doi.org/10.1037/dhe0000023

Delgado Bernal, D. D. (2001). Learning and living pedagogies of the home: The mestiza consciousness of Chicana students. *International Journal of Qualitative Studies in Education, 14*(5), 623-639. http://doi.org/10.1080/09518390110059838

Dewey, J. (1916). *Democracy and education*. Macmillian.

Diedinhofen, B. & Musch, J. (2015). Concor: A comprehensive solution for the statistical comparison of correlations. *PLoS ONE, 10*(4): e0121945. doi:10.1371/journal.pone.0121945

Dillman, D. A. (1978). *Mail and telephone surveys: The total design method*. Wiley-Interscience.

DuBois, W.E.B. (1903). *The souls of Black folk*. Dover.

Ellison, E. R., & Langhout, R. D. (2016). Collaboration across difference: A joint autoethnographic examination of power and whiteness in the higher education

anti-cuts movement. *Race, Ethnicity and Education, 19*(6), 1319-1334. http://doi.org/10.1080/13613324.2016.1150825

Fraser, N. (2007). Re-framing justice in a globalizing world. In T. Lovell (Ed.), *(Mis)recognition, social inequality and social justice: Nancy Fraser and Pierre Bourdieu* (pp. 17–35). Routledge.

Figueroa, M. (2014). Toward a spiritual pedagogy along the borderlands. In E. Facio & I. Lara (Eds.), *Fleshing the spirit: Spirituality and activism in Chicana, Latina, and Indigenous women's lives* (pp. 34-42). The University of Arizona Press.

Fredericksen, P. J. (2000). Does service learning make a difference in student performance? Journal of Experiential Education, 23, 64–74. http://dx.doi.org/10.1177/105382590002300204

Garcia, C. (2017). In defense of Latinx. *Composition Studies*, *45*(2), 210-212.

Garcia, G. A. (2018). Decolonizing Hispanic-serving institutions: A framework for organizing. *Journal of Hispanic Higher Education, 17*(2), 132-147.

Garcia, G.A., & Cuellar, M. (2018). Exploring curricular and co-curricular effects on civic engagement at emerging Hispanic Serving Institutions. *Teachers College Record, 120*, 1-36.

Garcia, G. A., & Koren, E. R. (2020). Connecting research, practice, and policy to define "servingness" at Hispanic serving institutions. In G. A. Garcia (Ed.), *Hispanic serving institutions (HSIs) in practice: Defining "servingness" at HSIs* (pp. 1-20). Information Age Publishing Inc.

Gamio, A. (2016). *Latinx: A brief guidebook*. Princeton LGBT Center. https://www.academia.edu/29657615/Latinx_A_Brief_Guidebook

Giroux, H. A. (2014). *Neoliberalism's war against higher education*. Haymarket Press.

Gutiérrez y Muhs, G., Niemann, Y.F., González, C.G., & Harris, A.P. (2012). *Presumed incompetent: The intersections of race and class for women in academia*. University Press of Colorado.

Harvey, D. (2011). *A brief history of neoliberalism.* Oxford.

Hayward, C. R. (2000). *De-facing power.* Cambridge University Press.

Hurtado, S., Alvarez, C. L., Guillermo-Wann, C., Cuellar, M., & Arellano, L. (2012). A model for diverse learning environments: The scholarship on creating and assessing conditions for student success. In J. C. Smart & M. B. Paulsen (Eds.), *Higher education: Handbook of Theory and Research* (pp. 41-122). Springer.

Jaschick, S. (2017, September 27). *New SAT, old gaps on race*. Inside Higher Education. https://www.insidehighered.com/news/2017/09/27/scores-new-sat-show-large-gaps-race-and-ethnicity

Killoren, S. E., Streit, C., Alfaro, E. C., Delgado, M. Y., & Johnson, N. (2017). Mexican American college students' perceptions of youth success. *Journal of Latina/o Psychology, 5*(2), 88-102. http://doi.org/10.1037/lat0000063

Kline, R.B. (2016). *Principles and practice of structural equation modeling* (4th ed). Guilford.

Langhout, R.D., & Gordon, D.L. (2021). Outcomes for underrepresented and misrepresented college students in service-learning classes: Supporting agents of change. *Journal of Diversity in Higher Education, 14*(3), 408-417. DOI: 10.1037/dhe0000151

Littenberg-Tobias, J. & Cohen, A. K. (2016). Diverging paths: Understanding racial differences in civic engagement among white, African American, and Latina/o adolescents using structural equation modeling. *American Journal of Community Psychology, 57*, 102-117.

Lugones (2003). *Pilgrimages/perengrinajes: Theorizing coalition against multiple oppressions.* Rowman & Littlefield Publishers, Inc.

Luna, N. A., & Martinez, M. (2012). A qualitative study using community cultural wealth to understand the educational experiences of Latino college students. *Journal of Praxis in Multicultural Education, 7*(1). DOI:10.9741/2161-2978.1045

Melamed, J. (2015). Racial capitalism. *Critical Ethnic Studies*, *1*(1), 76-85.

McCormack, T., Schnee, E., & VanOra, J. (2014). Researching up: Triangulating qualitative research to influence the public debate of "on-time" college graduation. *Teachers College Record, 116*(4).

McIntosh, P. (1988). *White privilege and male privilege: A personal account of coming to see correspondences through working in women's studies*. Center for Research on Women: Wellesley College.

Monzó, L. D., & SooHoo, S. (2014). Translating the academy: Learning the racialized languages of academia. *Journal of Diversity in Higher Education, 7*(3), 147-165. http://doi.org/10.1037/a0037400

Muthén, L. K., & Muthén, B. O. (1998-2011). *Mplus user's guide, sixth edition*. Muthén & Muthén.

Núñez, A. M., Crisp, G., & Elizondo, D. (2016). Mapping Hispanic-Serving Institutions: A typology of institutional diversity. *The Journal of Higher Education*, *87*(1), 55-83.

Palardy, G., Rumberger, R., & Butler, T. (2015). The effect of high school socioeconomic, racial, and linguistic segregation on academic performance and school behaviors. *Teachers College Record, 117*(12), 1-52.

Pascarella, E.T., & Terenzini, P.T. (2005). *How college affects students* (vol. 2). Josey-Bass.

Perez, W., Espinoza, R., Ramos, K., Coronado, H., Cortez, R. (2010). Civic engagement patterns of undocumented Mexican Students. *Journal of Hispanic Higher Education, 9*(3), 245-265.

Pyne, K. B., & Means, D. R. (2013). Underrepresented and in/visible: A Hispanic first-generation student's narratives of college. *Journal of Diversity in Higher Education, 6*(3), 186-198. http://doi.org/10.1037/a0034115

Renbarger, R. (2019). Graduate School preparation from the Ronald E. McNair postbaccalaureate achievement program: A systematic review. *Higher Education Politics & Economics, 5*(1), 33–53. https://doi.org/10.32674/hepe.v5i1.1139

Reguerín, P. G., Poblete, J., Cooper, C. R., Sánchez Ordaz, A., & Moreno, R. (2020). Becoming a racially just Hispanic Serving Institution (HSI): A case study of the University of California, Santa Cruz. In G. Garcia (Ed.). *Hispanic Serving Institutions (HSIs) in practice: Defining "servingness" at HSIs* (pp. 41-60). Information Age Publishing.

Reips, U., & Funke, F. (2008). Interval-level measurement with visual analogue scales in Internet-based research: VAS generator. *Behavior Research Methods, 40*(3), 699-704. http://doi.org/10.3758/BRM.40.3.699

Sabay, S., & Wiles, K. (2020). *How TRIO enhances equity for community college transfer students. New Directions for Community Colleges, 2020*(192), 109–119. https://doi.org/10.1002/cc.20428

Schlomer, G. L., Bauman, S., & Card, N. A. (2010). Best practices for missing data management in counseling psychology. *Journal of Counseling Psychology, 57*, 1–10. http://doi.org/10.1037/a0018082

Schreiner, L. A. (2010a). The "Thriving Quotient": A new vision for student success. *About Campus, 15*(2), 2-10.

Schreiner, L. A. (2010b). Thriving in the classroom. *About Campus, 15*(3), 2-10.

Schreiner, L. A. (2010c). Thriving in community. *About Campus, 15*(4), 2-11.

Schreiner, L. A. (2013). Thriving in college. *New Directions for Student Services,* (143), 41-52.

Schreiner, L.A. (2014). Different pathways to thriving among students of color: An untapped opportunity for success. *About Campus, 19*, 10–19.

Schreiner, L.A., McIntosh, E.J., Kalinkewicz, L., & Cuevas, A.E.P. (2013). *Measuring the malleable: Expanding the assessment of student success*. http://www.thrivingincollege.org/wp-content/uploads/2012/02/ASHE-Measuring-the-Malleable-Schreiner-et-al.-FINAL.pdf

Stephens, N. M., Fryberg, S. A., Markus, H. R., Johnson, C. S., & Covarrubias, R. (2012). Unseen disadvantage: How American universities' focus on independence

undermines the academic performance of first-generation college students. *Journal of Personality and Social Psychology, 102*(6), 1178-1197.

Sutton, A., Langenkamp, A. G., Muller, C., & Schiller, K. S. (2018). Who gets ahead and who falls behind during the transition to high school? Academic performance at the intersection of race/ethnicity and gender. *Social Problems, 65*(2), 154-173.

Tabachnick, B. G., & Fidell, L. S. (2007). *Using multivariate statistics* (5th ed. ed.). Allyn & Bacon/Pearson Education.

The Santa Cruz Feminist of Color Collective (2014). Building on “the edge of each other’s battles:” A feminist of color multidimensional lens. *Hypatia, 29*(1), 23- 40.

U.S. Department of Education (nd). *College scorecard*. https://collegescorecard.ed.gov

University of California Office of the President (2015). *Undergraduate student success*. http://www.ucop.edu/institutional-research-academic-planning/_files/social_mobility_2-20-15.pdf.

Weston, R., & Gore, P. A., Jr. (2006). A brief guide to structural equation modeling. *The Counseling Psychologist, 34*(5), 719-751.

Whistle, W. (November 1, 2017). How higher education data reporting is both burdensome and inadequate. Third Way, https://www.thirdway.org/report/how-higher-education-data-reporting-is-both-burdensome-and-inadequate

Walia, H. (2013). *Undoing border imperialism*. AK Press.

Worthington, R. L., & Whittaker, T. A. (2006). Scale development research: A content analysis and recommendations for best practices. *Counseling Psychologist, 34*(6), 806-838.

Yosso, T. J. (2005). Whose culture has capital? A critical race theory discussion of community cultural wealth. *Race, Ethnicity and Education, 8*(1), 69-91.

Table 1

Original Borderlands Items and EFA factor loadings for random half sample

Since starting college, how often have you....	1	2	3	4
Felt you had enough power to reflect what has happened in the past so that you could avoid future mistakes?	.626	-.106	.067	-.194
Felt you had the power to create your life's story	.760	-.156	.097	-.320
Felt you didn't have the words or voice to participate in a conversation meaningful to you? (REVERSE)	-.300	.336	-.132	.140
Perceived your situation as part of a power structure that is created by humans and therefore changeable by humans?	.349	.259	-.170	-.165
Felt you could encourage and motivate yourself?	.640	.144	.033	-.079
Felt you could be a contributor to the social change you wanted to see?	.691	.094	-.080	-.020
Felt as if you were lost to yourself? (REVERSE)	-.302	.705	.240	-.270
Felt like you could effectively communicate something important about yourself to others?	.497	.029	.155	.365
Drawn on your knowledge of your history or cultural	.637	.280	-.336	-.056

strengths in order to create your future?				
Balanced the needs of your family or community with your own needs or aspirations?	.518	.040	-.069	.128
Drawn on the resources of the university to address social justice needs in your community?	.508	.275	-.157	.155
Felt like you were a "different person" on and off campus? (REVERSE)	-.106	.282	.164	-.040
Had the power to define key terms in your life (“success,” “education,” identity categories) in your own way, depending on audience?	.760	-.057	.499	.090
Felt like it was impossible to navigate the college environment? (REVERSE)	-.153	.399	.169	.235
Felt that you could create knowledge that was meaningful to your community?	.655	.048	-.110	.183

Table 2

Demographics

	Comparison (n = 118)	Service Learning (n = 132)	Campus (% only)
Women	77 (65.3%)	101 (78.9%)	48.4%
African American/Black	13 (11%)	5 (3.8%)	4.2%
Asian American	25 (21.2%)	35 (26.5%)	27.7%
Latinx	48 (40.7%)	56 (42.4%)	27.7%
Native American	1 (0.8%)	0 (0%)	0.8%
Pacific Islander	3 (2.5%)	1 (0.8%)	0.4%
White	27 (22.9%)	31 (23.5%)	31.3%
First-generation college	70 (59.3%)	78 (59.1%)	42%
Educational Opportunity Program[6]	68 (57.6%)	72 (54.5%)	34.7%

[6] The campus identifies Educational Opportunity Program students are those who are low income, undocumented, or African American/Black/Caribbean.

Table 3

Factor Loadings of the final Borderlands scale, based on the Confirmatory Factor Analysis

Since starting college, how often have you....	Unstandardized Estimates (SE)	Factor Loading	Standardized R^2
Felt you had enough power to reflect what has happened in the past so that you could avoid future mistakes?	1.00 (.00)	.58	.33
Felt you could encourage and motivate yourself?	1.07 (.21)	.65	.42
Felt you could be a contributor to the social change you wanted to see?	1.27 (.24)	.71	.50
Felt like you could effectively communicate something important about yourself to others?	.90 (.21)	.52	.27
Drawn on your knowledge of history or cultural strengths in order to create your future?	1.06 (.22)	.63	.39
Balanced the needs of your family or community with your own needs or aspirations?	1.04 (.24)	.52	.27
Drawn on the resources of the university to address social justice in your community?	1.11 (.26)	.52	.27

Had the power to define key terms in your life ("success", "education," identity categories) in your own way, depending on audience?	1.27 (.24)	.69	..48
Felt that you could create knowledge that was meaningful to your community?	1.20	.66	.44

Table 4

Descriptive Statistics

	Range	mean	SD	alpha
Academic Determination	6-30	22.77	3.90	.67
Social Connection	6-30	24.15	6.60	.84
Diverse Citizenship	6-30	28.40	4.65	.76
Borderlands	9-45	31.96	16.85	.83

Table 5

Nomological Network

	Borderlands	Academic Determination	Social Connection	Diverse Citizenship	High School GPA
Academic Determination	.45**				
Social Connection	.46**	.15**			
Diverse Citizenship	.58**	.50**	.34**		
High School GPA	-.10	-.04	-.19**	-.14	
Composite SAT	-.11	-.04	-.24**	-.13	.30**