Journal of Access, Retention & Inclusion
in Higher Education

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Foreword by

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EDITOR'S NOTE

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Increasingly, educators at all levels from academic and student affairs are scrambling to provide meaningful learning experiences, programming, and support for students both in and outside of the classroom. During the last several months, many college/university students have had to learn, engage with faculty, staff, and each other in a virtual setting. Many colleges/universities have had to make the pivot to online learning and faculty have had to learn new technology and make lessons interactive while ensuring student engagement. This is not an easy feat. Despite the challenges, students have been resilient, faculty and staff have been innovative, and administration has been flexible—because at the end of the proverbial day, student success is paramount.

This issue of the Journal provides our readers with an eclectic array of research, reports on innovative programs and best practices related to student success. We trust this edition will be useful to practitioners, administrators, and policymakers alike. After all, student success is all our responsibility.

Journal of Access, Retention, and Inclusion in Higher Education

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FOREWORD

Analysis of trends in the National Assessment of Educational Progress (NAEP) for students across the US reveals that, on average, the achievement gap (the disparity in standardized test scores between students from historically marginalized populations and their white counterparts) has persisted in reading and math since the inception of the No Child Left Behind Act in 2002 [1]. Recent reports [2,3] predict that this issue will be exacerbated by online teaching and learning necessitated by the COVID-19 pandemic due to the following:

a. The first-level digital divide- lack of access to online learning tools and technology.

b. The second-level digital divide- lack of ability to use these tools effectively (i.e. getting help with subjects that are unfamiliar to their parents), build a rapport with the teacher and other students, and maintain discipline and motivation for self-directed study; and

c. Challenges to socioemotional health related to social isolation, extended screen time, and irregular schedules. A second report issued by the federal government [4] goes further. It projects that students in the bottom two-thirds of achievement testing will return to school with a learning loss of 32-37% in reading and a 50-63% learning loss in math.

These circumstances will have a direct impact on students' preparation for, matriculation to, and retention in college.

Right now, all institutions of Higher Education are asking:

> *How can we best provide students with the tools they need to persist and eventually graduate in spite of the negative impacts of COVID-19 on their education?*

With articles on topics central to the modern college experience such as belonging, mentoring, high impact practices, trauma literacy, and many more- this edition of the *Journal of Access, Retention, and Inclusion in Higher Education* offers up evidence-based answers to this difficult question. As you prepare to meet the needs of your students, I urge you to read and re-read this volume as it provides a rich conceptual framework for the future of student success.

Sincerely,

Nicole S. Bennett

Vice Provost for Research and Creative Activity &
Vice Provost for Faculty Development
West Chester University

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Reflecting on Belonging: Stories to Normalize College Transition and Encourage Engagement

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Abstract

Students' capacity to develop a sense of belonging during the transition to college is recognized as a critical aspect of student retention. A lay theory of belonging was introduced on a regional, mostly-commuter campus of a midwestern public university during a summer bridge program for 21 upper-year student mentors and 29 incoming first-year students through a social-belonging growth-mindset intervention. Participants viewed a video of upper-year students and recent alumni sharing their personal stories of gaining a sense of belonging on campus, interspersed with facts about the transition to college. Students were asked to respond to writing prompts about the video. Qualitative analysis of their responses illustrated distinctions between upper-year and incoming students' descriptions of belonging and conditions for future belonging based on students' level of familiarity with the campus. Implications are discussed for introducing students to psychological lay theories to create a growth-mindset orientation towards sense of belonging.

Keywords: belonging, first-year students, growth mindset, student mentors, summer bridge program, regional campus

Reflecting on Belonging: Stories to Normalize College Transition and Encourage Engagement

Students' capacity to develop a sense of belonging in college is a critical aspect of student retention (O'Keefe, 2013) and is theorized to impact academic achievement and persistence (Strayhorn, 2019; Walton & Cohen, 2007, 2011). Social-belonging interventions which share upper-year students' and alumni's stories of adjusting to college and developing feelings of belonging may normalize feelings of uncertainty during the transitional period (Asher & Weeks, 2014; Walton & Brady, 2020) and increase the retention, persistence, and academic performance of incoming students (Yeager et al. 2013, 2016). Specifically, students of color can benefit from other diverse students' stories of transitory belonging uncertainty because many students encounter internalized racial stereotypes related to academic achievement and historically based underrepresentation of students of color on college campuses (Brady et al., 2020). Belonging is especially important at community colleges and regional four-year campuses, where commuter students can struggle to feel connected (Bloomquist, 2014). Indeed, even commuting students who have a sense of belonging in other contexts of their life may lack a similar sense of belonging at the university (Asher & Weeks, 2014). Belonging is increasingly recognized as an important area of research on the college experience.

In this study, we conceptualize belonging as a psychological human need and form of engagement, which is fulfilled by having the perception that one is an essential part of a learning environment (Collier, 1992; Strayhorn, 2019; Wilson et al., 2015). In the literature, belonging is described as having three components: *psychological* (Collier, 1992; Strayhorn, 2019; Walton & Cohen, 2007; Wilson et al., 2015), *academic* (Pichon, 2016; Strayhorn, 2019; Thomas, 2012; Walton & Cohen, 2007;), and *social* (Baumeister & Leary, 1995; Thomas, 2012; Walton & Cohen, 2007). Scholars have demonstrated the malleability and extent of external influence on an individual student of the psychological components of belonging.

At commuter campuses where belonging cannot be fostered through dorm-based experiences, belonging is positively correlated with persistence (Bloomquist, 2014). Our study examines a social-belonging experience framed through a growth-mindset lens at Regional Campus (all names are pseudonyms), a midsized midwestern regional university, with a 90% commuter population. Persistence to graduation was a major challenge at Regional Campus where the 2009 incoming class' four-year graduation rate was 8%. Like many regional campuses and community colleges, the campus could not afford costly, third-party pre-college experiences; however, the campus was involved in designing and instituting several retention initiatives, including a math mindsets experience (Suh et al., 2019), which were intended to introduce academic success strategies and support students' persistence to graduation. We believe such campus-created, practitioner-led, and research-based initiatives are essential to carrying out the open-access, student-success missions of the 942 regional universities and community colleges which serve over 5.5 million of the nation's minoritized, under-represented, first generation, incoming college students (Duffin, 2020). This article reports on one such practitioner-led

initiative in the hopes of encouraging other open-access college educators to similarly contribute to the scholarly literature on student access and persistence.

Study Purpose

The present study reports findings from a social-belonging experience inspired by the Project for Education Research that Scales (PERTS, 2020) to create a lay theory experience (Yeager, et al. 2016) on the psycho-social skills of belonging. The original PERTS research upon which the present study replicated was part of a larger research agenda funded by the William and Melinda Gates Foundation, Stanford University, and the University of Texas at Austin. However, because of the prohibitive cost of joining a PERTS cohort, the campus received permission from the PERTS researchers to replicate the original study with a campus-specific belonging intervention.

The resulting social-belonging experience intended to initiate student reflection on seeking ways to gain a sense of belonging on campus. In particular, the experience was aimed at incoming and mentor students who were likely to be at risk from an internal stereotype threat because of their race, socioeconomic class, or non-traditional age. The researchers assumed that upper-year students would conceptualize campus belonging differently than incoming students and wanted to explore those differences in order to design future interventions to facilitate incoming students' sense of belonging. Further, as research-practitioners, the campus' involved faculty and staff hoped that all students participating in the belonging experience would internalize the belief that with the passage of time and engagement in academic relationships with others on campus, students would increase their sense of belonging on campus.

As a part of the campus' broader exploration of student persistence, the present study explored perceptions of campus belonging among incoming first-year students' and upper-year students who participated in the Belonging experience, a growth-mindset social-belonging activity presented in a summer bridge program called the First-Year Institute (FYI). This study explored the research questions:

1. How do student mentors and incoming students enrolled in the FYI conceptualize belonging in college?
2. Is there a qualitative difference between how incoming mentor students (e.g., upper-year students) and incoming first-year students conceptualize belonging?

Conceptualizations of Belonging in the Literature

There are multiple ways to foster a sense of belonging (Ostrove & Long, 2007). Below we examine the physiological, academic, and social components of belonging as these are most salient for college students. We also summarize relevant literature on growth mindset interventions.

Components of Belonging

Psychological components of belonging are related to strong motivational needs (Allen & Bowles, 2012; Bowlby 1988) including an innate drive to belong to groups (Allen & Bowles, 2012; Baumeister & Leary, 2005). Psychological components of college belonging include

students' ability to establish favorable relationships with peers and faculty (Hoffman et al., 2002; Thomas, 2012), their perceptions of the environment as caring (Baumeister & Leary, 1995), and feelings of mattering or being valued (Asher & Weeks, 2014; Strayhorn, 2019).

Academic components include feeling comfortable in a classroom (Pichon, 2016; Strayhorn, 2019) and developing "knowledge, confidence, and identity" as a successful college student (Thomas, 2012, p.15). In one phenomenological study evaluating the academic-social experience of community college students simultaneously taking courses at four-year institutions, Pichon (2016) found that instructors' creation of a safe, welcoming classroom space can instill a sense of academic belonging which can increase students' persistence and graduation rates. Walton and Brady (2020) found that students who are underrepresented in academia are more at risk of belonging uncertainty. The researchers concluded that students who do not feel like they belong may choose not to be engaged and may lose their motivation to be academically engaged.

Social belonging is a sense connection to the campus, a student organization, or other students who share a major (Baumeister & Leary, 1995; Thomas, 2012). In a UK-based 'What Works?' report, Thomas (2012) noted that a difference between students' socioeconomic or academic background and their perception of the campus may result in student beliefs that they are not well-matched for the institution. Walton and Cohen (2007) refer to this lack of social relationships as "belonging uncertainty" and suggest that subjective feelings of lack of social belonging in students of color may hinder their academic success (p. 82).

Growth Mindset Interventions

Yeager and Dweck (2012) describe mindsets as implicit theories students hold about themselves and their ability to develop academic and social resilience. In contrast to holding a fixed mindset, or belief that an individual has an innate level of ability (i.e., that they are "smart" or "stupid"), students with growth mindsets believe that they can learn or grow through hard work and perseverance. The growth mindset theory has been applied to a variety of efforts to increase students' perceptions of their academic persistence, including interventions targeting belonging (Suh et al., 2019; Yeager et al., 2016).

Although highly popular, some researchers still critique the efficacy of growth mindset interventions (McPartlan et al., 2020), and critical scholars have questioned the implications of education theories, such as growth mindset, which privilege individual persistence without analyzing the contexts in which students are expected to engage in persistence (Love, 2019; McKinney, 2018; Wood, 2018). These scholars aptly argue that researchers and educators need to consider the role of context and the intersectional nature of students' previous experiences when examining notions like academic success or belonging in academic spaces. Dweck and Yeager (2019) acknowledge that "these [growth mindset] interventions are highly dependent on subtle features of the materials and procedures and on how they are matched to the target population" (p. 489). However, gaining a sense of belonging by actively participating in a welcoming campus community can lead to students' academic success, and graduation, impacting lives professionally, economically, socially, and psychologically (Strayhorn, 2012).

Our study seeks to understand upper-year and incoming students' sense of belonging at their university. Recognizing that students may not come to college with a strong sense of belonging, a group of faculty developed a belonging experience modeled after the PERTS intervention. The experience began with watching a video that current students and faculty had created of authentic student and alumni experiences of belonging. After playing the video to upper-year students and incoming students in a summer bridge program, members of the research team asked the students to write about their sense of belonging on the campus. In addition to illuminating differences between upper-year and incoming students' sense of belonging, our data captures stories of how the upper-year students gained a sense of belonging. Below we report our findings and discuss how developmental educators can design and implement theoretically driven research projects which are directly responsive to local contexts, including the material limitations of their campuses.

Methodology

In this study, both the belonging experience and our analysis of students' responses were framed within a critical approach to growth mindsets. The research team focused on how students made sense of belonging through their personal experiences. The experience was supported through an internally funded grant project to produce the belonging video which mimicked the PERTS (2020) social-belonging intervention that asked incoming students to read stories of belonging and then respond to written prompts with (1) descriptions of their own developing sense of on-campus belonging and (2) advice to other students who may feel they, too, do not belong. After the experience was completed and data were collected, one of the research team members invited the first author (a former Regional Campus faculty member involved in campus retention) and the second author (a doctoral student studying developmental education), to disseminate the findings from the experience.

Data Sources and Collection

The study was conducted at Regional Campus, a public four-year regional university with a majority commuter population. Regional Campus's 2012 incoming class's four-year graduation rate was 17%; approximately 36% of students graduated within eight years (institutional data, n.d.). These figures align with a general upward trend in the campus's graduation rate, which was 8% in 2009. In the past decade, the campus has established several student retention and completion initiatives, including the First-Year Institute (FYI), a four-day summer bridge program to introduce students to campus culture, student support services, and facilities. In addition to attending FYI, incoming students participate in a year-long peer-mentoring program where upper-year students who are former FYI students serve as mentors for the incoming cohort, assisting incoming students in goal setting and academic success strategies. FYI is open to first-generation college students, non-traditional, and minority students. The FYI upper-year and incoming students were therefore more diverse than the rest of the campus (Table 1).

Table 1
Student Demographics

Demographic	FYI Participants	Campus-Wide
Gender		
% Male	20%	41%
% Female	80%	59%
Race		
% White	60%	85.6%
% African American	22%	6.2%
%Multiracial	12%	2.6%
% Asian/Pacific Islander	2%	1.5%
% Other	4%	4.1%
Type of Student		
% First Generation	50.7%	45%
% Non-First Generation	49.3%	55%

   The Belonging experience occurred during the final day of the 2015 FYI. FYI participants took a brief demographic survey, watched the belonging video, and received the video transcript. Based on the PERTS mindset intervention involving written belonging narratives attributed to students at a flagship residential university (Yeager et al., 2013), the research team produced a six-and-a-half-minute video of ten interviews with Regional Campus students and alumni about developing a sense of belonging at Regional Campus. Interviewees were selected to over-represent racially diverse, non-traditional, transfer, and international students. The video also included a student with a speech/communication disability and one graduate student alumnus. Between interviews, short messages scrolled across the screen conveying messages about student success strategies, goal setting, on-campus involvement opportunities, student support services, and perseverance encouragement. After viewing the video, FYI participants responded to three open-ended items modeled after the PERTS growth mindset intervention (Yeager et al., 2013). The writing prompts included (1) summarizing the ways the video-recorded interviewees developed a sense of belonging, (2) explaining a time when the FYI participant developed a sense of belonging, and (3) writing a message of encouragement to another student who may not feel like they belong in the transition from high school to college (Appendix B).

Data Analysis

   We applied thematic analysis to develop a qualitative understanding of how incoming and upper-year FYI participants perceive belonging at Regional Campus. Thematic analysis is appropriate for survey data analysis since it supports the researchers' in-depth analysis of emerging themes which were not included in the research questions (Tanaka et al., 2012). Braun and Clarke (2006) identify six phases of thematic analysis: (1) familiarization with the data to

notice patterns of meaning or potentially interesting issues (e.g., themes), (2) generating initial codes (or labels which can identify the most basic segments or pieces of the data), (3) searching for themes within the data and codes, (4) refining themes to create a thematic map that collapses related codes into a single theme or expand codes to dive deeper into specific themes, (5) defining and naming themes, and ending with (6) writing up results. Our coding was also informed by themes from the literature review. After the authors independently coded surveys, they reviewed coded utterances, discussing discrepant codes until consensus was reached.

Trustworthiness
Trustworthiness in qualitative research refers to confidence in the methods used to gather and interpret data in order to ensure a study's quality (Connelly, 2016). Trustworthiness demonstrates validity and reliability in the same way that quantitative researchers seek to demonstrate rigor. The present study's trustworthiness is established through the thorough explanation of the data collection and analysis procedures as well as the detailed explanation of reported themes (Richard, 2006).

Results

Scholars have identified several belonging components, or *evidence of current belonging* (Strayhorn, 2019; Thomas, 2012); however, the FYI participants in this study also described conditions which they believed foster *future* belonging. The analysis uncovered distinctions between upper-year and incoming students' descriptions of belonging and conditions for future belonging at their regional campus. Upper-year students' written responses also included higher frequencies of both components and conditions of belonging.

Conceptualizations of Belonging: Components of Belonging

In the literature, belonging is manifest through academic, social, and psychological components on college campuses (Strayhorn, 2019; Thomas, 2012). In our study, upper-year and incoming students identified each of these components (Tables 2 and 3).

Table 2
Upper Year Student Belonging Components (540)

Component	Example
Social (445)	"There's always someone you can talk to, so you are never alone."
Psychological (56)	"Find something that you love, or d[e]sire, and to chase it."
Academic (39)	"We are here to further our education and reach our goals."

Table 3
Incoming-Student Belonging Components (283)

Component	Example
Social (193)	"Learning how to be open to others."
Psychological (52)	"Not to give up when things get hard."
Academic (38)	"There are tutors and people willing to help."

Social components. Upper-year students were far more likely to include references to *social components* (445 compared to 193), such as "I feel like my voice matters among peers and on-campus." Within the *Social Component*, the subtheme *Campus Community* was applied to upper-class student responses 157 times, including 114 mentions of on-campus *Student Involvement* (Table 3 reports the two dominant aspects of this theme). Frequently, upper-year students' examples and advice referenced personal experiences and familiarity with the campus: "After I joined Sigma Kappa that is when I really felt like I belonged at [Regional Campus]." This statement also illustrated the importance of *Greek Life* (15) for some upper-year students. Incoming students made substantially fewer references to *Campus Community* (80; Table 4); this difference is unsurprising given incoming students' limited exposure to the campus at the time of data collection. *Student Involvement* (60; Table 5) was also influential for incoming students' conceptualizations of belonging. Incoming students' *Student Involvement* references were similarly divided between *Advice to Get Involved* and *Involvement Examples*. Overall, incoming students' references were less specific than those provided by the upper-year students. The lack of specificity in incoming students' responses can be explained by their limited experiences from which to offer advice to friends.

Table 4

Upper Year Student Involvement (114)

Reference to Involvement	Example
Involvement Examples (71)	
Clubs/Organizations (54)	"Had I not went Greek, I would not be as happy at [Regional Campus]"
Activities (14)	"I went to intramural events and met people through that."
Study Group (3)	"Start study groups, which is a great way to get involved."
Advice to get involved (43)	
Step out of comfort zone (14)	"You have to go out of your comfort zone to make friends in college."

Table 5

Incoming Student Involvement (60)

Student Involvement	Example
Involvement Examples (32)	
Clubs/Orgs. (15)	"Join groups and be involved in many activities in school."

Activities (14)	"They [interviewees] met people within the club."
Study Group (3)	"We can start studying together."
Advised to Get Involved (28)	
Step out of comfort zone (9)	"I also put myself out there and made a point to feel connected."

On-Campus Relationships was another common subtheme within *Social Components* for both upper-year and incoming students. Upper-year students more frequently described *Student-to-Student Relationships* (Table 6); however, they also discussed *Faculty/Staff Support.* Similar to the *Campus Community* subtheme, incoming students made fewer references in general to *On-Campus Relationships* (Table 7) and were more likely to reference *Meeting New People* (47) than upper-year students (27).

Table 6

Upper Year Students' On-Campus Relationships (179)

On-Campus Relationships	
Student-to-Student Relationships (92)	
Friendships (35)	"Though you may not feel like you belong now, over time, you will gain friends."
Peers/Classmates (56)	"Spark up a conversation in class with someone you haven't talked to before."
Institutional Support (60)	
Faculty/Staff (17)	"If you show you care, your professor will be willing to help you."
Meeting New People (27)	"Try putting yourself outside of your comfort zone and introducing yourself."

Table 7

Incoming Student Relationships (89)

Incoming Student Relationships	
Student-Student Relationships (25)	
Friendships (16)	"Though you may not feel like you belong now, over time, you will gain friends."
Peer/Classmates (9)	"Spark up a conversation in class with someone you haven't talked to before."
Faculty Support (17)	"You have to get to know your professors."
Meeting New People (47)	"Meeting new people is the number one thing."

Academic components. Upper-year and incoming students made qualitatively similar references to *Academic Components.* For example, "It helps you feel like you belong because you have someone by your side and to study with" (upper-year student) and "[Do] not be afraid to ask for help when there are tutors and people willing to help" (incoming student). Incoming students were slightly more likely to discuss *Academic Resources* (19 versus 12 upper-year mentions): "Take advantage of campus resources- personal counseling, student development, career development" (incoming student). Upper-year students more frequently connected their academic belonging to peers (27 versus 19 incoming student mentions). However, the limited number of references to *Academic Components* make meaningful quantitative comparison impossible.

      Psychological components. References to *psychological components* also were qualitatively similar: "I had to share part of myself and become vulnerable" (upper-year student) and "Presentence[sic] and desire will help you and play a large role in your experience" (incoming student). Upper-year students identified psychological components less frequently than social or academic but still with greater frequency than incoming students (0.90 mentions per upper-year mentor compared to 0.24 per incoming student).

      Affect is an element of the psychological component of belonging (Strayhorn, 2018). This element emerged as an important aspect related to belonging in upper-year and incoming students' letters to friends (Tables 8 & 9). For example, one upper-year student reflected a negative affect resulting from her fear that she did not belong as a nontraditional student: "I remember sitting in the parking lot in my car and looking at the buildings *being afraid to get out of the car* on my first day. Coming back to school at the age of 39 was a challenge." Another upper-year student's comment illustrated a sense of positive affect resulting from forming The Dining Hall: "After forming this group, I have made so many more friends and *feel more welcomed and included* with things on campus." The research team distinguished between positive affect (as a general sense of positivity about belonging) and pride (as positivity rooted in the students' sense of self-worth and confidence).

Table 8
Upper Year Student Belonging Affect (37)

Upper Class Student Affect	Example
Positive (23)	"I...feel more welcomed and included with things on campus."
Negative (11)	"Being afraid to get out of the car on my first day."
Self-Pride (3)	"Be proud of who you are."

Table 9

Incoming Student Belonging Affect (45)

Incoming Student Affect	Example
Positive (19)	"Put passion in all things to create a confident belongingness."
Negative (19)	"I was nervous of messing up and not being able to do a good job."
Self-Pride (4)	"feeling like I will do just fine in college and adjusting."

Both incoming and upper-year students who participated in the FYI belonging experience emphasized social components of belonging, such as on-campus involvement or building on-campus relationships. Incoming students referenced social components nearly four times more frequently than psychological or academic components. The discrepancy was even greater for upper-year students who made similarly frequent references to psychological and academic components but more than double the mentions of social components. Because the study did not measure changing conceptualizations of belonging over time, we make no claims of causality between social conceptions of belonging and length of time or persistence at Regional Campus.

Qualitative Differences Between Mentor and FYI Students

As reported in the previous section, the thematic analysis uncovered several qualitative differences between the two groups' conceptualizations of belonging components and their advice for developing a sense of belonging. Both groups offered advice to actively seek out ways to engage through formal campus events and clubs as well as informal connections to other students. However, upper-year students offered more detailed (and more frequent) descriptions of the social component of belonging. Upper-year mentors were also more likely to stress the importance of the campus community and on-campus relationships in particular. Their descriptions and advice regarding belonging included greater detail. Upper-year students also identified a greater range of specific opportunities to get involved, particularly by recounting their own experiences. In contrast, incoming students included fewer concrete examples to support their recommendations.

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Discussion and Implications

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Before discussing the findings and implications, we note that this study had several delimitations and limitations. Delimitations refer to things that were excluded from the study by design. For example, the research team chose not to collect data beyond the FYI students' letter writing or to engage in member-checking in order to minimize disruption from FYI's purpose related to student success. Similarly, the study did not measure participants' sense of belonging, such as through the Sense of Belonging Scale (SBS; Hoffman et al., 2002-2003), or the impact of the video experience on persistence or action (Morrow & Ackerman, 2012). Finally, there were limitations based on the video intervention itself: The video may have primed viewers to focus on factors that influenced belonging without explaining how these factors contribute to students'

actual belonging. Despite these delimitations and limitations, the study presents relevant qualitative analysis of students' perceptions as they internalized a belonging message, and—perhaps more importantly—represents the potential for future more rigorous practitioner-based research on issues directly relevant to their colleges and students.

Belonging on campus is primarily a social element for both upper-year and incoming students. We found that upper-year mentor students were more likely to identify social components (445) than incoming students (193). This emphasis on the social component of belonging aligns with contemporary belonging literature (Strayhorn, 2008). However, our data present some important differences from the literature. Notably, although Strayhorn (2008) theorizes the importance of academic and psychological factors of belonging, the analyzed responses showed that participants had a strong sense of belonging as social element but a less well-developed conceptualization of the psychological or academic aspects of belonging. Scholars and educators emphasize the importance of belonging, in part, because of its explicit connection to persistence (Medina, 2018). Given the relationship between belonging and persistence, our findings that institutions need to increase students' understanding of the academic components of belonging and institutional resources for developing academic belonging (Strayhorn, 2020). Encouraging study groups or implementing more learning communities can build from students' recognition of social belonging to develop academic belonging. Additionally, the findings can be used to identify and research initiatives targeting incoming students' emergent belonging components.

Both mentor and incoming students offered advice about how to get involved on campus—demonstrating their focus on the social components of belonging. Qualitative differences in upper-year and incoming students' descriptions of belonging most frequently suggested upper-year students' greater knowledge of and breadth of experience at Regional Campus. The findings do not suggest some secret knowledge about belonging on campus or that a single activity or event can foster belonging. Instead, incoming and upper-year students agreed that the best way to belong was to be action-oriented in seeking out opportunities to engage. Further, it may be that these upper-year students, who agree to serve as FYI mentors, feel a greater sense of belonging on campus than other upper-year students and that they therefore are better prepared to share their personal belonging experiences with other students. However, college faculty and staff can still play an essential role in helping all students develop a sense of belonging within academic contexts. For example, more than half of the upper-year mentor students mentioned the importance of joining Greek life to enhance belonging. However, Walton and Brady (2020) caution colleges not to conflate participation in social activities with feelings of belonging, "One misconception is that the intervention focuses on purely social experiences, such as close friendships or feelings of homesickness. To the contrary, the emphasis [in developing a belonging initiative] is on experiences of belonging and nonbelonging within the core academic context of school— in classrooms, study groups, lab settings, and in interactions with classmates or instructors" (p. 26).

Perhaps ironically, the most meaningful aspect of this project for the practitioners engaged in this work was the least discussed aspect of the study design. The video which was used in the belonging experience was produced by a member of the original grant-funded team. This team member assigned the video as a project in his photojournalism class. In addition to meeting course objectives, the video was intentionally designed to mimic a social-belonging intervention with stories from real Regional Campus students and alumni in order to foster a sense of belonging in FYI participants. The resulting study included several limitations, but—unlike some other more rigorously designed studies—the research utilized existing strengths and skills of Regional Campus practitioners to responded directly to Regional Campus needs without significant additional resources. Too often the research we read is disconnected from or out-of-reach for practitioners while the practitioners engaging in field-based and experiential research lack access to the methodological training to design studies which can be published in highly rigorous research journals. Our resulting reporting of the present study illustrates the continued need within the field of higher education to better connect scholars and practitioners from the earliest stages of intervention design through dissemination of results. As research-practitioners, we call upon our colleagues to develop their own sense of belonging within the professional community committed to higher education access and retention. We seek to develop future collaborations which are methodologically rigorous while still being accessible and applicable to the practitioners and students we serve.

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SOS for Struggling College Students:
Improving Retention Through a Mentoring-Based
Comprehensive Academic Success Program

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Abstract

Due to a unique tiered system of academic standing, which varies by classification, some Mountain View University students below a 2.0 grade-point-average (GPA) receive academic interventions, while others do not. Good standing is defined as achieving a 1.5 GPA for freshmen, 1.65 for sophomores, 1.85 for juniors, and 2.0 for seniors. Every semester, there are approximately 400 students placed on academic warning or probation and enrolled in academic success center (ASC) courses, while approximately 400 students below a 2.0 GPA remain in good standing due to the tiered system. Students receiving the interventions are at a distinct advantage. This study assessed the success of the Academic Success Studies Program – comprised of faculty mentoring and three academic success courses – by examining five semesters of student GPA and retention rate data, measured after one and two semesters. Findings indicated that participation in the program correlated with considerable improvement in both student success metrics.

Introduction

      Studies have shown that approximately 40% of college students will leave college in the first three years (Thatcher, 2016; Tinto, 2012). Many academic administrators have wondered why so many college students do not complete their degrees, leading some educators to believe that many of these educationally at-risk students lack the academic skills needed to succeed in college (Richman et al., 2014). Research indicated that many students have not received the experience and training in their high school programs necessary to flourish as a self-regulated learner in college (Edgecombe, 2011), while Cloete (2018) suggested that the academic tasks at the college level tend to demand a far higher-level of thinking and independent learning than that encountered in secondary school. Additionally, self-efficacy and effective time management, key aspects of self-regulated learning, are predictors of success in college academics (Renes, 2020).

      Tinto (2012) underscored that institutions "must eventually address the four conditions that are known to promote student retention, namely expectations, support, assessment and feedback, and involvement" (p. 114). Currently, universities have placed emphasis on academic services and student success programs in order to support and retain students who are struggling academically. Many college administrators have tried to determine if the cost of retaining a student and the type(s) of intervention implemented to help each student are worth the investment (Olbrecht et al, 2016; Thatcher, 2016). However, retention data strongly endorses the application of intervention to help struggling college students persist through their academic program (Richman, 2014; Tinto, 2012). Some studies have also shown the academic benefits of providing a monitored probation program for high-risk students. León et al. (2019) found that 4,673 students who took a required course due to academic probation "were 20% more likely to persist and graduate" (p. 43) than those students who did not take the course.

      In the spirit of student support, as advised by Tinto (2012), Mountain View University has designed a program to meet the needs of underperforming students as defined by their academic status, including students on warning, probation, and suspension. Each semester, the Academic Success Center works with the registrar's office to enroll students in any of these categories into one of the Academic Success Center courses, which are designed to intervene and to help remedy students' low academic performance. Students are enrolled in one of three academic success courses designed to improve notetaking, testing, reading, and time management skills, while providing increased opportunities for faculty-to-student mentoring.

      Mountain View University has employed a unique tiered system to determine academic standing based on classification. A standardized 1,000-point total has been mandated for all residential courses, grading for each class is determined by a 10-point scale, and a non-weighted GPA has been used to determine academic standing. Freshmen have been required to maintain a minimum GPA of a 1.5 for good academic standing, sophomores a minimum GPA of 1.65, and juniors a minimum GPA of 1.85. In order to be in good academic standing as a senior, and in order to confer a degree, a minimum GPA of a 2.0 must be achieved. Standard best practices across diverse universities require a minimum GPA of a 2.0, regardless of classification. Because

of this system, there have been many students below a 2.0 GPA, but above the tiered cut-off score, who are technically in good standing and are not receiving interventions. This provides an opportunity to identify and study two groups: (1) students below a 2.0 GPA who are receiving intervention through required enrollment into an ASC course, and (2) students below a 2.0 GPA who are not receiving the intervention of being enrolled in an ASC course.

In this study, students enrolled in ASC courses below a 2.0 GPA were compared to a control group of students who were not in ASC courses (also below a 2.0 GPA). Two archival sets of data were compared in terms of: (a) retention after one semester, (b) retention after two semesters, and (c) improved GPA. Statistically significant improvement in all three categories was demonstrated in the findings.

Academic Success Studies Program Background

Improvement in the retention of students is not just essential to school administrators. Failure to complete one's degree in a reasonable amount of time affects students financially, academically, and often results in unmet goals. The academic success studies courses have provided the university with an opportunity to focus on retaining students who are on the verge of dropping from a degree program and from the institution. With the help of the registrar's office, the ASC created an intervention plan based on the academic status of these students. An academic success plan offers students an opportunity to strengthen their academic skills, while continuing to take courses on their degree completion plans, stay enrolled, and successfully recover good academic standing. Since 2015, the ASC has been focused on effectively tracking academic services and student success by incorporating more detailed reporting that helps monitor the health of the center and its programs.

Academic Success Faculty Mentoring

Mentoring students has been an integral part of this comprehensive approach to helping struggling students since the establishment of the success center. Students are encouraged to make appointments with the Academic Success Center faculty members for individual assistance with time management, organization, and study habits. Guidance in the areas of effective notetaking, active listening, reading college textbooks, test-taking, test anxiety, and memory improvement is provided. Peer mentors also promote the study skills courses that are available. Most of these courses provide direct mentoring for students or promote the mentoring program as part of their curriculum.

Thomas (2008) described the kind of learning that takes place in these mentoring-based study skills courses with limited class size:

> Participatory approaches, drawing on the students' previous experiences and their existing knowledge and skills, can help to build relations between students, as well as promoting a deeper understanding of the issues, [lack of a sense of belonging, lack of connectedness, etc.]. For example, peer learning and teaching about study skills and IT can be used to ensure the cohort has comparable skill levels and forms social alliances. (pp. 73-74)

Believing that class size contributes to a greater sense of connectedness and community, the administration has allowed the department to provide a small class experience in all but one academic success course.

Wernersbach et al. (2014), using the LASSI test for study skills, found that among the students who took college study skills courses, "academically underprepared student scores increased, reflecting that their anxiety, motivation, and testing strategy skills were at a level similar to comparison students" (n.p.). Such academic success courses have been adopted into the curriculum of Mountain View University for more than 30 years.

Academic Success Program

In 2015, the advising and success center was renamed as a college since it has many similarities to the University College model. The vision for the name change was to officially designate the center as a college, which included two degree-offerings. In addition, the college had approximately 90 employees, consisting of full-time staff, contracted faculty, and part-time adjuncts. This change allowed the university to centralize all academic student services into one area, including subject-based tutoring, peer-mentoring, the writing center, student advising, testing services, the office of disabilities, the student-advocate office, and language tutoring. This strategic centralization of multiple academic student services provided a clear opportunity to evaluate the effectiveness of programs designed to strengthen at-risk students.

The Academic Success Center (ASC) was established to provide oversight to the academic success studies courses, as well as various student services, including testing, tutoring, peer-mentoring, and the writing center. Several Academic Success Center studies courses have been available to all students, but they are required for students who are not in good academic standing because of their overall GPA. The ASC has considered these courses to be a "funnel approach" to academic success (see Figure 1).

Figure 1 *Funnel Approach*
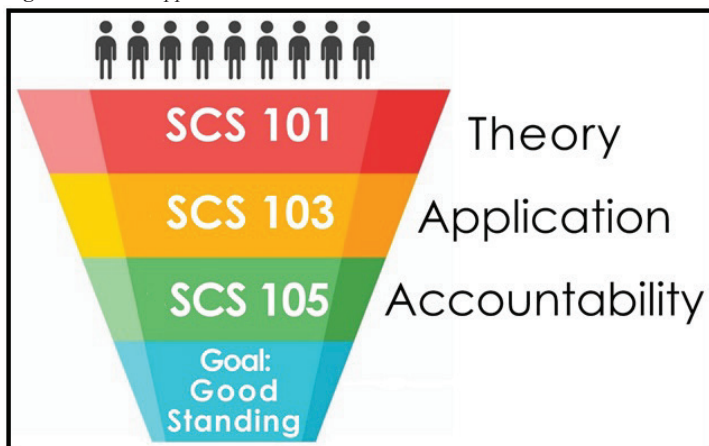
Success 101

The first course, Success 101, Theory for Academic Success, presents basic study skills with emphasis on the research-proven theories of academic success. This course is worth one-hour credit and is required for students who are placed on academic warning after one semester of not meeting the required GPA for good standing. This course equips students by introducing them to the theory behind study strategies such as time management, memory, and test-taking. Topics include ownership/self-efficacy, time management/planning, listening/notetaking, text-book mastery and academic policies. Students are also introduced to other resources available to them.

Success 103

Students who did not reach the required GPA after being on academic warning for one semester are placed on academic probation. These students are limited to 13 credit hours and are placed in Success 103, Practical Applications of Academic Success. This course guides the students in the application of the study skills that were learned in the first course. Students are required, as part of the curriculum, to take advantage of the academic resources the university provides, based on their own needs. Students may choose from the Counseling Center, the Writing Center, Tutoring, or the Career Center. Mentoring of students is still a goal of this course, so class size is limited to 15 students.

Success 105

Success 105, Accountability for Academic Success, is designed for students on academic probation who did not reach the required GPA by the end of one semester. The class size is also limited to 15 students. This is a one-hour credit course emphasizing accountability and mentoring. Students create and maintain a plan for completing assignments and preparing effectively for exams. They complete two self-assessments to determine their level of progress in the application of various study skills, access their current semester grades, and approximate their semester GPA at mid-term.

A notable feature of this accountability course is a 30-minute individual conference with the professor. The first estimation of semester GPA is calculated during the conference based on current course grades. Students are led through a reflection of their accomplishments and challenges through the first half of the semester. Strategies for successfully completing the semester are also discussed. As part of the meeting, the overall needs of the students, as well as issues concerning their spiritual life are addressed. Toward the end of the course, students access their grades in all courses and approximate their semester GPA. The course concludes with a reflection survey, focusing on areas of improvement, areas that still need to be addressed, and a thorough plan for final exam preparation.

Program Demographics

Between 2015-2019, the ASC serviced more than 70,000 students through academic support services and 2,183 students enrolled in academic success studies courses. Currently, the

ASC has consisted of four contracted full-time faculty members and one chair who serves as administrator and faculty member. The ASC offers an average of 18 one-credit hour course sections with approximately 15-20 students per section per semester. Rather than presenting demographics from five semesters, this study provides an in-depth look at the semester in the middle (Fall 2017), representative of a typical semester in the Academic Success Center.

Demographic breakdown according to ethnicity, gender, and age is presented in Figures 2, 3, and 4 from a sample size of 375 students.

Figure 2

Fall 2017 Ethnicity
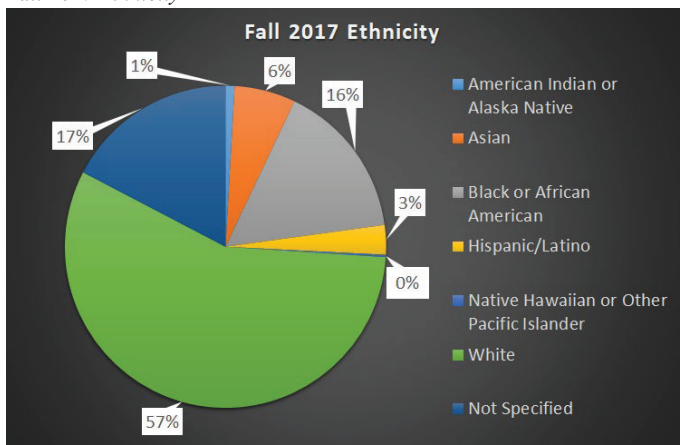
Figure 3

Fall 2017 Gender
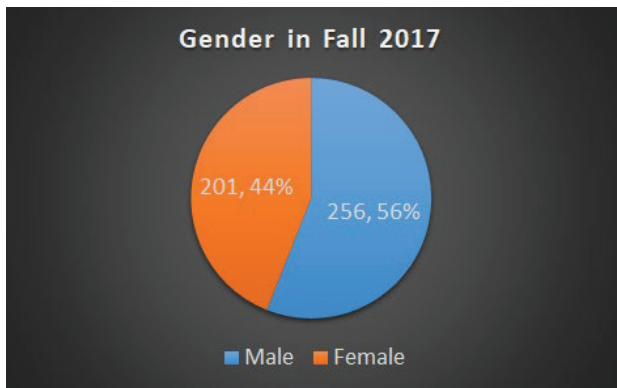
Figure 4

Fall 2017 Age of Students

Ages of Success Students in Fall 2017
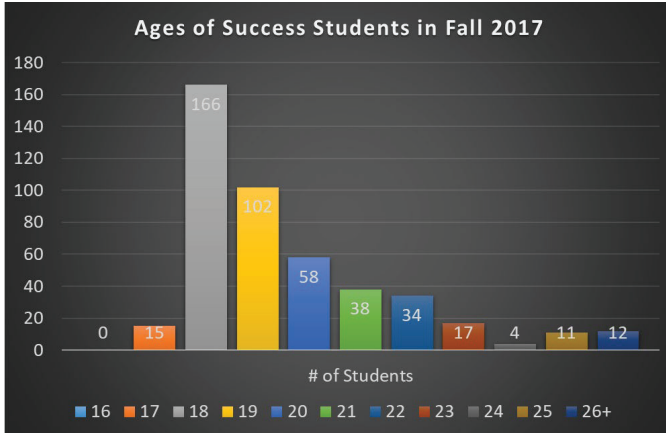
Rationale

Multiple factors affect whether a student will remain in school and finish a degree. Lane (2018) suggests that "Psychosocial factors, such as stress, appear to play a role in whether a student successfully integrates into college that critical first year and have a strong impact on whether the student remains in college past the first year" (n. p.). Offering student mentoring services as a vital component of student support through the Academic Success Center serves to address these factors that are related to success.

Increasing retention is a necessary goal for any academic success program. Including mentoring as part of an academic success program creates a more rounded approach. Satyanarayana et al. (2014), while observing students in a four-year community college, "showed that mentoring and tutoring helped freshmen students get about 3–5 percentage points higher grades…" which would indicate "a 9 to 12 percent increase in retention rate" (p. 5). The study recognized that these students are more likely to persist in college as a result of these intervention methods (Satyanarayana, 2014, p. 5). The addition of a mentoring facet to college success courses is a desirable step toward helping students reach their academic potential and achieve their goals. In addition, meeting the needs of the unprepared students is part of the mission of the ASC. Targeting these students with personal support measures has been a priority for the Academic Success Center.

Methodology

Due to Mountain View University's unique tiered system of good academic standing, there are hundreds of students with a GPA that falls below a 2.0 who do not receive the intervention of a required ASC course. In order to be in good academic standing, freshmen are required to have a minimum 1.5 overall GPA, sophomores are required to have a minimum 1.65

overall GPA, juniors are required to have a 1.85 overall GPA, and seniors are required to have a minimum 2.0 overall GPA (required to graduate). This leaves a large control group of students below a 2.0 GPA who are not required to take an ASC course. The purpose of this study was to compare students below a 2.0 GPA who received the intervention of an ASC course with the control group of students below a 2.0 GPA who did not receive that intervention.

To assess the effectiveness of the Academic Success program, three different components of student success were analyzed: (a) retention after one semester, (b) retention after two semesters, and (c) improved GPA. For consistency, only data from the fall semesters was analyzed, as data from spring semesters differs greatly from fall for a variety of reasons. After receiving IRB approval, data from five semesters, starting in the Fall of 2015 and ending in the Fall of 2019, was collected by running archival data reports through our Argos database and was checked for accuracy by removing duplicate entries. The results were first organized into a chart and included percentages (see Table 1).

Table 1

Total Data Results

	Students < 2.0 GPA	Students	1 Sem	% Ret	2 Sem	% Ret	GPA	% Imp
Fall 2015	Without ASC Courses	388	278	71.6%	193	52.0%	72	29.1%
	With ASC Courses	452	359	79.4%	298	70.3%	119	34.6%
Fall 2016	Without ASC Courses	417	278	66.6%	200	49.7%	76	30.6%
	With ASC Courses	440	363	82.5%	296	67.2%	126	35.6%
Fall 2017	Without ASC Courses	458	328	71.6%	207	44.6%	88	27.9%
	With ASC Courses	375	299	79.7%	245	64.5%	126	43.4%
Fall 2018	Without ASC Courses	434	302	69.5%	194	41.7%	95	31.1%
	With ASC Courses	449	374	83.2%	311	60.8%	125	37.5%
Fall 2019	Without ASC Courses	413	279	67.5%	158	28.2%	83	28.8%
	With ASC Courses	467	401	85.8%	318	45.6%	165	43.1%

The data from Fall 2017 was dummy coded, entered into SPSS, and analyzed using a binary logistic regression. When dummy coding the data in SPSS, students who took an ASC

course below a 2.0 GPA were coded as a "1" and students who did not take an ASC course who were below a 2.0 GPA were coded as a "0". Students who were retained after one semester were coded as a "1" and those not retained after one semester were coded as a "0". Students who were retained after two semesters were coded as a "1" and students who were not retained after two semesters were coded as a "0". Finally, students whose GPA improved after one semester were coded as a "1" while students whose GPA did not improve after one semester were coded as a "0".

Results and Discussion

Students below a 2.0 GPA who took an ASC course (375) and students below a 2.0 GPA who did not take an ASC course (458) in Fall 2017 were included in the analysis (N=833). The students below a 2.0 GPA who were not enrolled in an ASC class (458) served as a control group for this analysis. The binary logistic regression analysis found that students who took an ASC course exhibited an increase in retention after one semester (e =.63, p<.001; Nagelkerke R^2 = .014), and after a second semester the increase was sustained (e = .44, p <.001; Nagelkerke R^2 = .052). The students who were enrolled in an academic success course also tended to improve their GPA after one semester (e =.32, p<.001; Nagelkerke R^2 = .033).

Retention After One Semester

When measuring retention after one semester, the goal was to measure the percentage of ASC students who remained until the next spring semester. For all five semesters, students below a 2.0 GPA who were enrolled in an ASC course were retained at a higher rate than students not enrolled in an ASC course. The lowest difference in retention rates was in Fall 2015 with a 7.8% difference of higher retention. The highest difference in retention rates was in Fall 2019 with a 18.3% difference as compared to the control group. For each column in Table 2, the mean average was found for the total of the five semesters provided. The average retention rate after one semester for students taking an ASC course was 82.1% as compared to a retention rate of 69.4% for students who did not take an ASC course. The average percentage of increase in retention for one semester above the control group was 12.7%.

Table 2
Retained One Semester

Retained 1 Semester	With Courses	Without Courses	Percent Difference
Fall 2015	79.4%	71.6%	7.8%
Fall 2016	82.5%	66.6%	15.9%
Fall 2017	79.7%	71.6%	8.1%
Fall 2018	83.2%	69.5%	13.7%
Fall 2019	85.8%	67.5%	18.3%
Mean Average	**82.1%**	**69.4%**	**12.8%**

Figure 5

Comparison of One Semester Retention Rates over 5 Fall Semesters

Below a 2.0 GPA & Retained 1 Semester

With Courses: Fall 2015: 79.4%, Fall 2016: 82.5%, Fall 2017: 79.7%, Fall 2018: 83.2%, Fall 2019: 85.8%

Without Courses: Fall 2015: 71.6%, Fall 2016: 66.6%, Fall 2017: 71.6%, Fall 2018: 69.5%, Fall 2019: 67.5%
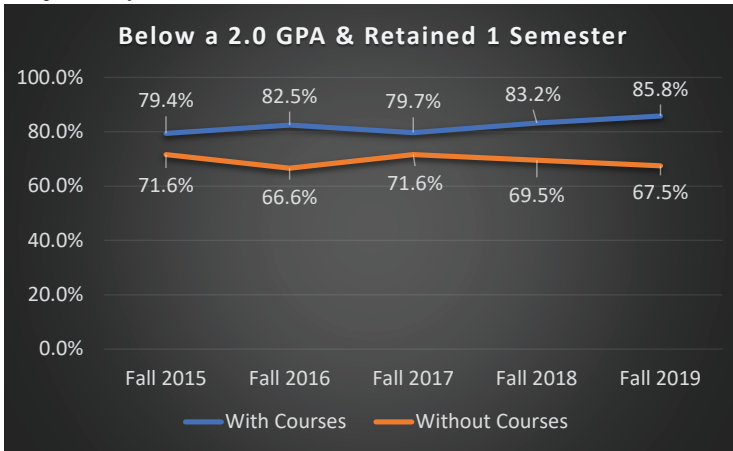
Retention After Two Semesters

From the same data, we analyzed how many students were retained two semesters after the intervention. For example, when starting with the students in Fall 2015, we measured how many of them were retained until the Fall 2016 semester. Once again, students enrolled in ASC courses showed statistically significant improvement over the control group of students below a 2.0 GPA who did not take a course. Overall, the percentages of two semesters of retention for students in ASC courses showed an even greater difference than those reported above for one semester. The mean average was found for the total of the five semesters (see Table 3). The lowest difference in retention rates was in Fall 2019 with a 17.4% difference of higher retention when compared to the control group. The highest difference in retention rates was in Fall 2017 with a 19.9% difference as compared to the control group. With the highest retention difference being 19.9% and the lowest being 17.4%, this highlights consistency of a high difference nearing 20% over the course of five semesters.

These findings imply that the study skills training provided to students in ASC courses introduce lasting tools that endure multiple semesters. Two semesters after taking an ASC course, the average retention rate was 61.7% as compared to the control group retention rate of 43.2%. From the graph in Figure 6, it is interesting to note the overall downward trend of retention from Fall 2015 to Fall 2019. However, this downward trend appears to be a university-wide trend. Despite the downward trend, the average difference of students enrolled in an ASC course remained consistently higher for an average of 18.4% more students retained.

Table 3

Retained Two Semesters

Retained 2 Semesters	With Courses	Without Courses	Percent Difference
Fall 2015	70.3%	52.0%	18.3%
Fall 2016	67.2%	49.7%	17.5%
Fall 2017	64.5%	44.6%	19.9%
Fall 2018	60.8%	41.7%	19.1%
Fall 2019	45.6%	28.2%	17.4%
Mean Average	**61.7%**	**43.2%**	**18.4%**

Figure 6

Comparison of Two Semester Retention Rates over 5 Fall Semesters
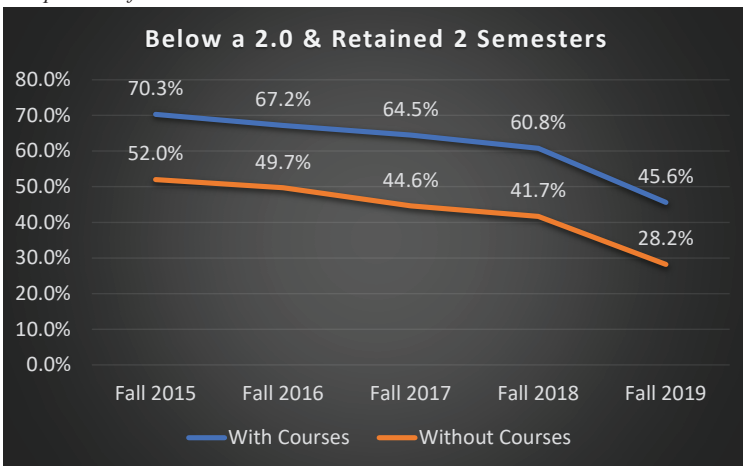
Improved Overall GPA After One Semester

When analyzing the data, our third goal was to identify students who earned a higher overall GPA one semester after each fall semester that was observed. In each of the five fall semesters observed, more students enrolled in an ASC course who were below a 2.0 GPA improved their overall GPA as compared to the control group of students below a 2.0 GPA not enrolled in an ASC course. The lowest difference in improved overall GPA was in Fall 2016 with a 5% difference. The highest difference in improved overall GPA was in Fall 2017 with a 15.5% difference as compared to the control group. When running the mean average of all five semesters, an average of 38.8% of students enrolled in ASC courses improved their overall GPA as compared to an average of 29.5% of students in the control group. Out of the three categories analyzed in this paper, the overall GPA improvement showed the lowest average difference in improvement as compared to the control group with an average of 9.3% difference.

Table 4

Improved Overall GPA

Improved Overall GPA	With Courses	Without Courses	Percent
Fall 2015	34.6%	29.1%	5.5%
Fall 2016	35.6%	30.6%	5.0%
Fall 2017	43.4%	27.9%	15.5%
Fall 2018	37.5%	31.1%	6.4%
Fall 2019	43.1%	28.8%	14.3%
Mean Average	**38.8%**	**29.5%**	**9.3%**

Figure 7

Comparison of Improved Overall GPA over 5 Fall Semesters
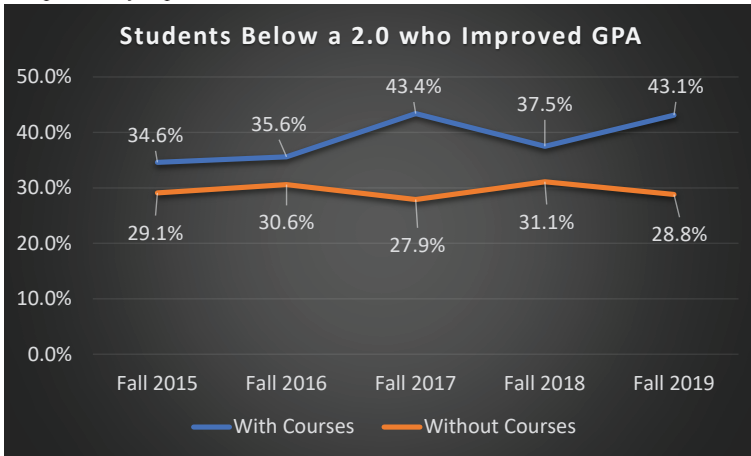
Overall, percentages for students enrolled in ASC courses were always higher than the control group of students not enrolled in ASC courses. The difference in percentages was more significant in retention categories than it was in GPA improvement, but all three categories were significant. By running the mean averages on each of the three categories, we were able to determine and rank each category with the highest impact. The highest-ranking category was retaining students for two semesters with an average improvement of 18.4%. This difference of retention of two semesters was consistent across all five fall semesters with the lowest difference being 17.4% and the highest difference being 19.9%. The second-best performing category was the retention of students after one semester with an average improvement of 12.8% as compared to the control group. This average number was less consistent across five semesters with the lowest difference at 7.8% and the highest difference at 18.3%. The third-best performing category was the improved overall GPA after one semester with the average difference of improvement of 9.3%. This category was less consistent across 5 semesters with the lowest difference of improvement at 5.0% and the highest difference at 14.3%. However, some fluctuation is expected due to a variety of external factors. In sum, findings indicated that ASC

students consistently outperformed the control group of students in every category each semester, confirming the value of a comprehensive student success program to at-risk students.

Limitations and Future Research

When tracking the retention rates after the Fall 2019 semester, it is important to consider the COVID-19 pandemic that started in Spring 2020 and the continued changes through Fall 2020 and Spring 2021. Retention results for Fall 2019 did show a substantial dip, but the students retained as compared to the control group were still significantly higher and consistent with the differences from previous semesters.

Additionally, a limitation of the GPA improvement to consider is that many students did not have a previous GPA due to being new or transfer students. However, this GPA improvement limitation was consistent for both groups studied. Practitioners must also consider that students break enrollment for a variety of reasons including illness, finances, death or illness of a family member, or mental health issues.

Finally, the binary logistic regression analysis was used only on the Fall 2017 semester to serve as a representative sample of the five semesters analyzed. While the overall data reveals that Fall 2017 was typical of the five fall semesters, a binary logistic regression analysis could be performed on all five semesters for more in-depth analysis. Future research could also explore retention rates in light of covariates, such as ethnicity, gender, high school GPA, and SAT or ACT scores.

Conclusion

The purpose of this paper was to compare students enrolled in ASC courses with an overall GPA below a 2.0 with a control group of students not enrolled in ASC courses with an overall GPA below a 2.0. The success of students enrolled in ASC courses was measured by three criteria: (a) Percentage of students retained one semester, (b) Percentage of students retained two semesters, and (c) Percentage of students whose overall GPA improved. In all three categories, students consistently performed better than their peers. The binary logistic regression analysis revealed the same statistical significance for each category ($p<.001$). Not only did students enrolled in ASC courses outperform their peers in the control group, they also outperformed them by a significant margin for all five semesters. These findings illustrate that a comprehensive program supporting students who struggle academically is associated with greater academic outcomes. This data from the Academic Success Center over the past five years demonstrates the effectiveness of the program.

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It takes a Mob: Retention and Success through First Year Experience

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Abstract

The First-Year Experience at West Chester University (FYE @ WCU) is a dynamic, high-impact practice program that prides itself on retaining students through a university-wide effort by preparing the whole student for success. This four-credit course works from common student learning outcomes combined with disciplinary goals to emphasize student-faculty interaction, to introduce research, and to explore the campus community. The hallmarks of FYE @ WCU in its early years are partnerships and flexibility. By building strong relationships with digital services, co-curricular programming, and academic resources, FYE @ WCU was able to navigate a pilot year, one year of full-implementation, and a COVID-19 remote year. The program today is even more focused on student success and retention because of the unique iterations in three years. The quality of FYE @ WCU, as a high-impact practice, shows in preliminary improved retention rates and resonates throughout the University.

It Takes a Mob: Retention and Success Through First-Year Experience

You've probably heard that a group of fish is a "school," and a group of lions is a "pride." For WCU, whose mascot is the Golden Ram, a group of rams is called a "mob." How appropriate, since we have seen that to help our students succeed through the First-Year Experience program, it takes a mob—of faculty and administration, of academic and student affairs. Our first-year experience program retains students by integrating them into the community, teaching them key study skills, and sharing the structure of general education and liberal arts curriculum, all while introducing them to key foundational principles of disciplinary studies.

Introduction

Transitioning to a university environment is exciting and challenging, as first-year students navigate academic and social changes. If it wants to retain these students, the university must contribute to this transition by helping students adjust to their new lives. Supporting student success and retention, however, must be a systemic effort, enlisting academic affairs and student affairs, integrating university-wide buy-in from the top to the classroom, leveraging pedagogy and technology specialists, and showcasing collaboration (Hunter, 2006). Student success depends on more than a well-developed class or cohort. By preparing students with academic context and evidence-based strategies

for learning and by asking them to think about and reflect on their learning, FYE @ WCU's program has developed an effective bridge to first-year student success and retention.

The four-credit FYE @ WCU is a critical component of the revised General Education curriculum in effect for first-year students since Fall 2019. As part of a liberal arts education, FYE @ WCU is a required course that provides students with a platform to plan their continuing growth and development while at the University and beyond.

Retention and Student Success

Keeping students at a university is a multifaceted, dynamic issue. Tinto's (1999) student integration theory argues that the strongest factor in student attrition is lack of social and academic integration. Academic integration, in the forms of study groups, meetings with academic advisors, and conversations about academics outside of class time, is important to first-year persistence (Ishitani, 2016). Austin's (1984, 1985) theory of student involvement posits that the more students are invested, the more likely they will be satisfied with and succeed in their educational experience.

Kerby (2015) proposed a new way of looking at attrition that considers external factors, such as national and educational climate, as well as "pre-college" factors, including high school GPA, family background, sociocultural factors, and educational goals. Kerby focuses on four components: grade performance, intellectual development, social integration, and institutional commitment to develop a "sense of place" (and avoid academic dismissal and voluntary dropout). Further, Kerby argues that universities need to be flexible in their approach, considering factors, individual students, school climate, and changing needs. Goodman and Pascarella (2006) report that retention and student success are positively associated with first-year experience courses because students have meaningful interactions with faculty and other students, become involved in co-curricular activities, have an increased level of satisfaction with college, and earn higher grades.

High Impact Practices

To address the concerns about retention and student success articulated in the literature, the Association of American Colleges & University identified First-Year Experience (FYE) courses as a high-impact practice, which is defined as "The teaching and learning practices [that] have been widely tested and have been shown to be beneficial for college students from many backgrounds, especially historically underserved students, who often do not have equitable access to high-impact learning." FYE courses are high-impact practices implemented widely across public and private universities ("First Year," n.d.) to improve retention, completion, and engagement, especially among first-generation and underrepresented students.

High-impact practices have shown increased rates of student retention and student engagement. FYE @ WCU's program follows closely to Kuh (2008)'s descriptions: "The highest-quality first-year experiences place a strong emphasis on critical inquiry, frequent writing, information literacy, collaborative learning, and other skills that develop students' intellectual and practical competencies." Furthermore, FYE @ WCU incorporates other high-impact practices: Diversity/Global Learning that "help students explore cultures, life experiences, and worldviews different from their own" and ePortfolios that "enable students to electronically collect their work over time, [and] reflect upon their personal and academic growth." FYE @ WCU integrates a combination of Service/Community-based Learning and Undergraduate Research, which involves students in research experiences in a variety of disciplines, as

well as gives them hands-on experience with a topic they are studying and time to reflect on the community impact (Kuh).

While high-impact practices have become more common in undergraduate higher education, McNair and Albertine (2012) point to the importance of getting faculty invested, so that they "engage students at high levels," which is particularly beneficial for students from underserved populations (Kuh, 2008). McNair and Albertine stress that high-impact practices, like first year experience courses, (a) must be intentional in design, focusing on learning outcomes, as well as developmental and academic needs of students, and (b) must encourage innovation, which include professional development, mentoring, reward structures, and partnerships across disciplines and co-curricular opportunities.

<div align="center">

FYE @ WCU

</div>

Background

First-year students at West Chester University who have less than 24 credits are assigned, by their major or area of interests, to a large section of approximately 150 students, team taught by four or five faculty members. Students are also registered for a smaller breakout section of 37-38 students taught by one of the faculty team members. In general, concepts are presented to student in the large section and then applied and elaborated on in the smaller breakout sections.

Figure 1

FYE Course Structure

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            ┌─────────────────┐
            │  Large Section  │
            │     ≈ 150       │
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    ┌───────────┬───────┴───────┬───────────┐
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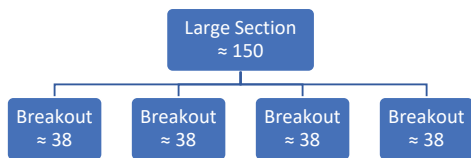
Outcomes and Course Development

FYE @ WCU syllabi are developed through a "grass-roots" approach with six common Student Learning Outcome (SLOs) alongside disciplinary outcomes. Common SLOs are designed to orient students to the underlying values of the Liberal Arts tradition, as well as the structure of WCU's general education program. FYE @ WCU introduces students to the logic behind degree and general education requirements so that they understand not just what classes to take, but also why they are taking them. In addition, students are introduced to research-based approaches to learning, university policies, ethics, and co-curricular activities, and they are asked to apply that knowledge in ways that will transfer across their academic careers (McNair & Albertine, 2012). All sections, regardless of disciplinary focus, must address the following SLOs:

A. An overview of the Liberal Arts tradition
B. An overview of the structure of General Education
C. An introduction to the ePortfolio and its use across the undergraduate degree
D. An overview of research in the Science of Learning
E. An overview and discussions about university policies, ethics, student life
F. An Experiential Learning Project (either research- or service-learning-based)

FYE courses are organized in nine meta-disciplinary areas (1) arts, (2) business, (3) culture and communication, (4) education, (5), exploratory, (6) health, (7) humanities, (8) social science and (9) STEM. Disciplinary outcomes, which are developed by each team, emphasize unique approaches to research, theory, and practice. These outcomes are addressed through assignments like the experiential learning project.

Although not an academic department, in many ways, FYE @ WCU functions like one. FYE @ WCU has two co-directors who have led the program since its pilot in 2018. Like a department chair, they arrange teaching schedules for their instructors (who come from five colleges), initiate curricular changes, develop and organize training sessions, collaborate with campus partners, distribute vital information to teams, and maintain an online repository of resources, among other duties. Each faculty team has a team leader who receives additional compensation for their work and is ultimately responsible for ensuring that their section meets student needs.

Program Development

FYE @ WCU grew from the University's 2011 Middle States self-study recommendations. This multi-year General Education reform integrated recommendations from the entire university community and was led by the General Education Advisory Board. Alongside the electronic portfolio and cross-disciplinary "pathway certificate programs," FYE @ WCU was one of the new components of students' general education requirements.

Timeline

Creating a new first-year experience program, one that applied to students across disciplines and that integrated faculty and resources from across the university, was an enormous task. Over summer 2018, four faculty teams created a proof-of-concept pilot that was implemented in the Fall of 2018. Approximately 700 exploratory studies, or undeclared, students participated in the pilot in sections of business, education and social work, exploratory studies, and health.

The FYE @ WCU 2018 pilot was very successful from student, participating faculty, and administration perspectives. The pilot also set the foundation for creating an "experience" by integrating campus partners. With the pilot complete, it was time to think about full implementation, serving a much more diverse audience of first-year students and encompassing the entire University (see Table 1). While very pleased with the academic SLO outcomes, FYE @ WCU was not yet fully integrating the strong co-curricular programs the University had to offer.

Table 1

Student Enrollment and FYE Teams

Semester	First Year Students	FYE Teams
Fall 2018 (Pilot)	707	4
Fall 2019	2,833	19
Fall 2020 (Remote)	2,815	19

Administrative Support

FYE @ WCU was situated for success from its earliest days. At the top levels, the University saw the value of FYE @ WCU as a high-impact practice and an opportunity to build relationships with

students from the first semester. The University President, Provost, and Deputy Provost provided financial support, time, and unwavering commitment to the success of the program. University leadership saw no request as absurd. From the tower to the trenches, everyone had the attitude that if FYE @ WCU succeeds, then our students succeed.

Partnerships

Fundamental to FYE @ WCU is the ability to provide students with the most current, research-based content and scholarship and contemporary social and cultural experiences. FYE @ WCU has developed these partnerships across the University, always prioritizing flexibility, openness, and how to best serve the students.

Digital Partnership

FYE @ WCU's early campus partnership was the Office of Digital Learning and Innovation (ODLI). ODLI's expertise in combining technology and pedagogy to engage students helped prepare faculty for the new experiences of team-teaching large sections. At first, the focus of this partnership was less about technology and more about the pedagogy of how to engage students in a large section settings. Most faculty saw technology as "cool, but not crucial." After the Fall 2018 pilot, faculty found that the tools available for attendance and engagement were somewhat haphazard and insufficient. Working together, ODLI and FYE @ WCU created a pilot program for Poll Everywhere, an online classroom response system. Once the right tool was in place, faculty began using the software as strategic pedagogy, driving student engagement. Subsequently, the university wide FYE @ WCU faculty began to employ the tool in their own disciplinary courses, expanding the boundaries of FYE @ WCU to benefit the entire student population.

Extending Improvements

The digital development was not limited to a student response system. Beginning in Fall 2019, ODLI assigned each FYE team an individual instructional designer to provide targeted and customized support. This, in turn, broadened faculty knowledge about the services ODLI provided, leading to more faculty engaging with their instructional designer outside of FYE interactions and improving the student learning experience across the campus. Growing relationships between faculty and instructional designers allowed for improved problem solving. For example, one faculty identified a need for better formative assessment and found a tool called H5P to address the concern. The faculty member worked with their instructional designer on securing licenses via the ODLI office and piloted the tool with a few FYE sections. The data generated from the pilot justified increasing the number of H5P licenses available to the whole university and thus improved the student learning experience beyond FYE @ WCU. Equipping faculty with the proper training and tools prior to and during implementation helped create successful and engaging learning environments for students.

Responding to COVID-19

Keeping student needs at the forefront, FYE @ WCU prioritized adaptation and improvement, which in turn prepared the program to adjust when the COVID-19 pandemic arrived at the University. During the Spring 2020 two-week switch from face-to-face to remote learning, one of the co-directors received a text from an FYE faculty member that said, "I just had a dreadful thought, what if next fall we are virtual. What do we do with FYE if we are virtual?" It was at that point, in April 2020, that the planning for an all-virtual FYE began. Given the uncertainty of the fall, planning had to account for

numerous possibilities ranging from fully remote to a hybrid mix. Recognizing that the creation of online courses is a time-consuming process (Kebritchi et al., 2017) and that not all FYE faculty had experience teaching in that modality, FYE @ WCU engaged with the ODLI office to construct a series of online units for each of the common SLOs. The units were designed to be both modular, so that FYE faculty teams could pick out specific activities to use alongside other materials, or comprehensive and complete units. The units were structured with a synchronous breakout session as the core element to emphasize students achieving academic and social integration opportunities that could promote first year retention (Ishitani, 2016; Kerby, 2015). The goal was to relieve faculty fear of teaching online and time pressure of developing materials by providing an interactive, SLO-centered model. Every FYE section in Fall 2020 had both asynchronous and synchronous components and leveraged the expertise and relationships between FYE @ WCU and ODLI, which resulted in tangible positive outcomes for students. See Table 2 for key results.

Table 2

FYE @ WCU Student Survey Results, Fall 2020

Taking the FYE @ WCU made student feel . . .	Percent of students who Agree
They belong @ WCU	85%
Their work has value	94%
They have grown personally	86%
They gained remote learning skills	84%
They understood remote learning expectations	87%
They learned how to use remote learning resources	88%

N=1,770

Teaching Modality

The success of the COVID-19 response led FYE faculty teams to reconsider the modality in which FYE courses would operate. The Fall 2018 and Fall 2019 FYE courses were 100% face-to-face offerings that made minimal use of digital modalities. The remote teaching experience of Fall 2020 and feedback from the students inspired faculty to re-envision the course delivery for future iterations. A proposal to allow up to 50% of the course to be delivered through an online modality is working through University-curricular approval process, and all but one of the FYE faculty teams is planning to implement at least 25% online delivery for Fall 2021. This change addresses students' post-pandemic desire for some online instruction (Seaman & Johnson, 2021).

Student Affairs Partnership

FYE @ WCU helped students foster connections with the university beyond academics. Some faculty in the pilot teams reached out to individual Student Affairs areas for programming. After Fall 2018, Student Affairs proposed a partnership, in alignment with their learning outcomes, and developed a menu of programs designed especially for FYE students: career readiness, community engagement, health and wellness, involvement and leadership, and social justice (Kerby, 2015). Some of the programs were asynchronous, some included guest lectures, and some required students to complete activities outside of class. Further, when the University switched to remote learning in Fall 2020, Student Affairs

adapted their programming for synchronous and asynchronous presentations to meet the needs of students from a distance. Seventeen of nineteen FYE teams participated in at least one Student Affairs program during the remote Fall 2020. The evolution of the Student Affairs partnership and its impact on students was evident in student survey data. In the Fall 2019 implementation, 77% of FYE students reported a sense of belonging to the WCU community after completing FYE, but that improved to 85% after the Fall 2020 FYE offerings. Throughout 2019 and 2020 FYE offerings, 82% of students reported understanding student service resources after completing FYE.

Academic Affairs Partnerships

WCU is replete with academic resources as a crucial support system for student success. From the University Libraries and Summer Undergraduate Research Institutes to RAMp UP and Compass, WCU prides itself on student success through retention. Several programs, some old, some new, but all geared towards student success, have become a serendipitous part of FYE @ WCU.

Success Coaching

The partnership between FYE @ WCU and Success Coaching is a natural outgrowth of student success and retention. Unlike traditional tutoring, which is also offered at WCU, success coaches focus on practical skills and strategies to guide students to their academic and personal goals. The personalized support reinforces the Science of Learning concepts developed in FYE @ WCU. This partnership provides targeted outreach to some of our most vulnerable students.

Academic Success Program

FYE @ WCU is currently working with the coordinator of the University's Academic Success Program (ASP), a special admissions program for students who show potential to succeed but who have not met admissions markers. ASP includes a five-week summer program that provides students with foundational preparation and academic support so that they are fully prepared to enter the Fall semester. To avoid duplicating efforts in each other's programs and to enhance each other's offerings, FYE @ WCU and ASP are partnering to ensure that content delivered in both programs are not repetitive but aligned to reinforce academic support for the students in ASP. Moreover, FYE will register ASP students in the same sections, with experienced ASP faculty, for Fall 2021.

STEM Spinoffs

Like the University-wide integration of Poll Everywhere, changes were not limited to just FYE. As faculty encountered other ideas and teaching methods, those concepts began to trickle out beyond the FYE courses. For example, a group of STEM faculty who participated in the first full year of FYE implementation recognized the value of the Science of Learning concepts. To encourage student success in introductory science and mathematics courses, the FYE STEM faculty hosted a college-wide meeting where they presented the Science of Learning applications and solicited feedback from faculty with the goal of improving student success within the college.

Internal Adaptations

Adaptation is a natural outgrowth of the FYE @ WCU development process. The partnerships highlight the value of student involvement across campus (Hunter, 2006), leverage technological resources, and capitalize on faculty expertise. FYE @ WCU encourages faculty to bring not only their content expertise, but also new ideas for teaching methods as a means of maximizing the incorporation of cutting-edge opportunities for students. The co-directors take a proactive attitude of "If you have a good idea, let's talk about it. Let's think about best practices." Building and FYE community helps faculty

feel invested and encourages innovation, which could benefit students from underserved populations (Kuh, 2008; McNair & Albertine, 2012). As innovations develop, it is necessary to share the new information across all the teams so they could take it and adapt it themselves.

Faculty Training

FYE @ WCU has no shortage of professional development through a weekly newsletter during the fall and various workshops throughout the year, all funded by the Provost's Office. After the pilot, a three-day workshop on a diverse array of topics trained the 70 faculty who would conduct the full implementation in 2019. Regular workshops were run with the campus partners to cover topics such as how to use Poll Everywhere, attendance taking techniques for large lectures, ePortfolio, and Student Affairs programming. Each Winter and Summer, FYE faculty engage in regularly scheduled debriefing and planning workshops, giving teams time to prepare for the next iterations. FYE @ WCU also sponsors "training as needed workshops," which give teams opportunities to learn new technologies and reflect on best practices.

FYE Repair

A four-credit required course in a student's first year could be a boom or a bust for a student's GPA and for gaining crucial skills for college success. In general, and informally, FYE @ WCU is considered among faculty as a "not an easy A, but a hard F." Recognizing that they are only first-year, first-time students once, students cannot repeat FYE; however, FYE @ WCU needed to address the fact, through the lens of student success, that some students are going to fail the course. A unique solution to this dilemma is FYE Repair, a credit- and tuition-free, self-paced, online program offered to those who earned less than a C-. FYE Repair students are provided an opportunity to complete a series of online modules, covering the learning outcomes, during the following semester: in so doing, they can raise their FYE grade up to a C-. A student's first Fall GPA has been predictive of retention and graduation rates; therefore, FYE Repair takes on even greater importance. Historically at WCU, a student earning a cumulative GPA of 2.67 or higher at the end of their first Fall is two times more likely to graduate. Thus, it is crucial that students have the opportunity to "repair" their GPA.

Diversity and Equity

The Black Lives Matter protests of summer 2020 crystalized on-going conversations about a hole in the FYE curriculum in the areas of diversity and equity. FYE @ WCU brought together a small team of FYE faculty who specialized in concepts such as privilege, racial identity development, social determinants of health, and systemic oppression to develop an online learning module. The unit was designed to be both flexible and introductory, allowing faculty to use the components that would best meet the needs of the students in their FYE sections without putting instructors in situations they felt unprepared for, similar to the remote units developed over Summer 2020. The Diversity and Equity module covered the high impact practice of helping students explore different life experiences and worldviews. In a survey of faculty, one team reported, "The Justice and Equality Module went really well. Many students brought it up during the end of the semester reflection as eye-opening and insightful." The success of the model has inspired others to begin constructing similarly structured units on other topics such as sustainability for incorporation into the resource collection for future FYE sections. The thoughtfulness of the initial design allows for continued updates and improvements as ongoing reflection and identification of blind spots highlights future areas for improvement.

Resources

FYE @ WCU created and curates a site on D2L, the University Learning Management System, to share resources among the teams. What started as a mechanism for sharing syllabi quickly expanded to include sample assignments that were effective at helping students learn and remain engaged. As faculty began to create video resources, the D2L site evolved to include a video library that FYE teams could draw on for content. When COVID-19 arrived, the teaching resource site, alongside the FYE online materials developed with ODLI, became the backbone of the remote semester, and situated faculty to continue to successfully serve and support students.

Conclusion

Through a joint rammin' effort of all our partnerships, we mobbed COVID-19. Students came, they learned, and they thrived. FYE @ WCU's "grass-roots" development, ability to adapt, plentiful resources, and dynamic partner programming demonstrates that status quo is not the game. FYE @ WCU maintains a nimble and evolving partnership structure in order to encourage faculty innovation to maximize the incorporation of cutting-edge opportunities for students. As a high-impact practice, FYE @ WCU is adaptive yet intentional, professional yet innovative, always with student needs first (McNair & Albertine, 2012).

Preliminary data suggests FYE @ WCU is an effective retention program, despite COVID-19, despite going fully remote in 2020-21, and with WCU's increased acceptance rate and the increase in size of the incoming class. Our success relies on a university-wide effort to shepherd our students into our WCU mob. As West Chester University has grown and changed, so too has the First-Year Experience, and FYE @ WCU looks forward to meeting new challenges and continuing to propel our students into success.

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EOF Advantage: Examining the Effects of a Summer Bridge Program as Part of a Comprehensive Strategy to Support First Generation Black Male Students

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Abstract

This qualitative study explored the participants' perception of how a program that provided college access and support to low-income students shaped their college experience and their belief in their ability to persist until graduation. The support provided by the Educational Opportunity Fund (EOF) Program at Montclair State University, begins with mandatory participation in a Summer Bridge Program called the EOF Summer Academy. Analysis of 5 semi-structured focus group interviews with Black, male First-Generation college students highlighted three themes: 1) the importance of the Summer Academy in ensuring academic preparedness and formation of peer support networks, 2) the establishment of fictive kin relationships which provided the type of family support that assisted participants prior to their college acceptance, 3) the importance of mentoring relationships as a protective factor to increase retention. This work has implications for the development of comprehensive support services for Black male first generation college students.

Black males, many of whom are first generation college students, have faced myriad challenges related to educational attainment. Some of those challenges occur prior to college and may include issues related to their social, physical, or educational environments (Bryan, 2017; Strayhorn 2012). Some, which may include a variety of microaggressions and systemic issues (Hotchkins & Dancy, 2015; Nadal et al., 2014), become evident during the college experience. Still other challenges occur during the transition between their precollege and college experiences (Grace-Odeleye, & Santiago, 2019: Slade et al., 2015). As colleges and universities become increasingly interested in exploring and providing resources to increase retention rates among this vulnerable population, more attention is being focused on that transition. This qualitative study explored the participants' perception of how a program that provided college

access and support to low-income students shaped their college experience and their belief in their ability to persist until graduation.

Literature Review

With a graduation rate of 36%, Black males are the group least likely to complete a college/university degree (NCES, 2016; Owens et al., 2010). Issues that influence those graduation rates begin early in the educational process with societal discrimination which influences access to high quality K-12 curricula and resources that would prepare them for college. Black males are often perceived as troublemakers and subject to more suspensions and expulsions than any other race or gender group during their K-12 educational experience. (Howard et al., 2012). Bryan (2017) reported on teacher observations where a Black male student was publicly reprimanded for an action similar to that of a White male student who received no such reprimand. These instances can lead to doubt related to one's ability to achieve academically and about one's place in any educational space (Bryan; 2017; Scott el al., 2013). Academic success in high school is a predictor for academic preparedness and success in college (Bir & Myrick, 2015) and the lack of sense of belonging has also been documented as a determinant to success in college related to Black males (Gaylord-Harden et al., 2018; Strayhorn 2012).

Those Black male students who overcome K-12 educational challenges are often the first in their families to enter college. First generation college students (FGS) are defined as students who are the first in their family to attend college (Palbusa & Gauvain, 2017; Bui & Rush, 2016). FGS are often students of color from low socioeconomic backgrounds (Lundeberg et al., 2007). They tend to leave colleges and universities prior to degree attainment at much higher rates than their non FGS counterparts (Brooms, 2018). FGS typically lack the academic preparedness which can lead to lower self-esteem in college and other stressors (Gibbons, 2018; Owens et al., 2010). Black males who are FGS experience a multitude of issues related to systemic racism and low expectations. Black males in college face microaggressions which lead to lower levels of educational engagement and limit an individual's sense of belonging (Hotchkins & Dancy, 2015; Nadal et al., 2014; Smith et al., 2011; Fries-Britt & Griffin, 2007). These students also grapple with the need to navigate a new environment with limited financial resources and limited guidance specific to their needs.

Existing research explores the influence of family relationships on the retention/academic success of Black male students. Contrary to stereotypes, recent research on Black families and education has found that relationship to be positive in several ways (Goings et al., 2015). For Black male students, the importance of family and community ties and interaction has been highlighted. Certain aspects of those ties have and can be linked to the existing family systems connected to or rooted in their cultural upbringing (Hunter et al., 2019) and African heritage (McLoyd et al., 2005). As noted in McLoyd et al. (2005) contemporary manifestation of this strong sense of community is illuminated in strong kinship and a collective notion of similar experiences. This definition of kinship does not require a blood or marital tie (Landrine & Klonoff, 1996) but those who are accepted as members are accorded the rights and

responsibilities of family members (Littlejohn-Blake & Darling, 1993). Although maintaining family relations can be viewed as a source of strain in Western societies, some research suggests that familial relationships may also act as a protective factor for individuals struggling with the adjustment to higher education (Capannola & Johnson, 2020). Extended kin oftentimes provide connections and resources resulting in positive experiences for adolescents in African American communities (Burton and Jarret, 2000). There is some evidence that family ties may provide some source of resilience for FGS *(*Guiffrida, 2005; Palmer, et al.,2011; Simmons, 2010). In applying this concept in studying Black males, it is important to understand how key personnel or networks may serve as a protective, kin-like element for FGS. As such, by understanding the cultural background of FGS, universities can implement programs that mimic these cultural norms to increase persistence and academic success.

There is evidence that certain practices and interventions can combat the high rates of attrition among black, male FGS. Wang (2012) noted in a study of campus adaptation for FGS, that mentorship impacted their approach to being a college student, their academic success, and how they navigated the challenges faced. However, programmatic initiatives such as Black Male Initiative (BMI) programs which enhance academic preparedness and overall support of Black males at colleges and Universities (Brooms, 2019: Clark & Brooms; 2019; Barker & Avery, 2012) are more widely utilized to support Black males. These programs are typically implemented at Predominantly White Institutions and have proven to raise retention and graduation rates for Black males (Barker & Avery, 2012. Brooms (2019) conducted a study on 63 Black males and discovered significant evidence of the importance of Black male students building communities among themselves which increased their sense of belonging and reduced students' feelings of isolation. However, very little literature focuses on how these supportive programs influence participants holistically, not just from an academic rigor standpoint.

Higher Education Institutions have begun to take a proactive approach to the issues of attrition among their vulnerable populations, including Black male FGS. For some, this comes in the form of Summer Bridge Programs (SBP). SBPs are designed to ease the transition from high school to college and are particularly useful for students from underrepresented populations and/or FGS as both groups are prone to high rates of attrition (Grace-Odeleye, & Santiago, 2019: Slade et al., 2015). Many of these programs focus on the development of academic skills to prepare students for college rigor (Bir & Myrick, 2015; Strayhorn 2011). Literature continues to highlight the lack of academic preparedness of college students specifically Black and Brown students from low-income communities (Brooms, 2019; Strayhorn, 2011). In addition, these programs provide support for students through mentoring, counseling, peer support/relationships, as well as professional relationships which garner trust from participants (Kallison & Stader, 2012).

Study

This qualitative study explores the participants' perception of the ways in which the Educational Opportunity Fund (EOF) program which begins with the EOF Summer Academy

shaped their college experience and their belief in their ability to persist until graduation. The questions which will guide this study are:

1. What is the impact of the EOF program on your college experience?
2. What support did the EOF Program provide you?

Study Context

This study examines a SBP, the EOF Summer Academy, that operates as part of the Educational Opportunity Fund Program at Montclair State University (MSU). The EOF Program is a state-funded program in New Jersey which provides college access and support to low-income students (Turner, 2020). Founded in 1968, the program currently operates at 42 colleges and universities in New Jersey and has been successfully in supporting low-income students from underrepresented populations through state grants, summer bridge programs, and academic and social supports (Turner, 2020; State of New Jersey, 2013). Each program is unique to its institution and aligns with the goals and mission of that institution, while maintaining its foundation in supportive services for its student population. The EOF state program is one of the state's oldest programs supporting low-income students (State of New Jersey, 2013), but little research explores its effects on the students in the programs and more specifically Black males in the program.

The study was conducted at a Public Institution in northern New Jersey with a population of 16,000 undergraduate students (Campus Facts, 2019). "As of fall 2020, the population of students attending the university included: 43% White, 30% Hispanic, 13% African American/Black, and 7% Asian, 0.2% Native Hawaiian/Other Pacific Islander and 3% two or more races, and 3% unknown". However, students of color collectively are the majority population. The University has been designated as a Minority Serving and Hispanic Serving Institution and 44% of its student population is Pell eligible (Campus Facts, 2020).

The EOF Summer Academy is an integral part of the overall EOF program as it begins the students' transition to college level academic expectations and campus life, while introducing them to the varied resources of the EOF program at MSU. The Summer Academy is a five-week residential program where incoming EOF freshmen live on campus and take 2 college level courses (Montclair EOF, 2021). The program is geared toward preparing students for the academic rigor of college while building community among the scholars through community service projects, weekly motivational assemblies, campus partner presentations, group and individual counseling, structured study hall and tutoring services, and a graduation ceremony (Montclair EOF, 2021). Throughout their undergraduate experience, they are still required to meet with their EOF counselors and adhere to the programmatic initiatives of the EOF program (Montclair EOF, 2021). The EOF program also provides career enrichment, leadership and development, financial literacy, co-curricular opportunities, and academic enrichment throughout the students' undergraduate career (Montclair EOF, 2021).

<center>**Methodology**</center>

Data Collection and Analysis

Qualitative Methodology was selected for this study since the aim was to understand the lived experiences of the participants (Hotchkins & Dancy, 2015; Lincoln & Guba, 1985). The data was collected using 5 focus groups with a total of 24 participants. The focus groups averaged 35-45 minutes with 2 facilitators per focus group. The criteria for the participants were that they be FGS, defined as not having parents attended and/or finished college (Gibbons et al., 2019) and self-identify as Black males. All of the participants of the study were students involved in the EOF program. At the time of the study, all participants were full-time students at the University. Their class standing varied from freshman to senior and the age range was 18-26. The semi-structured interview protocol contained questions that focused on the participants' pre-college experiences and current experiences in college. The interviews and original transcriptions were completed through an application called *Otter* which transcribes and records simultaneously. The first author reviewed the *Otter* transcriptions while listening to audio of interviews to ensure the data was transcribed accurately. The data was analyzed by using triangulation through notetaking briefly during the interviews, relistening to the transcripts, re-reading the transcripts, and the constant comparative method comparing pieces of data against each other creating open coding which led to axial coding (Creswell & Poth, 2018).

<center>**Findings**</center>

The three major themes which emerged from the data with respect to Black male FGS' experiences at a PWI and their engagement with the EOF program were: (1) Academic and social preparedness from the summer program (2) EOF as extended family; (3) Support and Mentorship. Each theme illuminated the importance of the Summer Academy as a bridge between pre-college life and the EOF program which provided the support necessary for retention and graduation.

Academic and Social Preparedness from the Summer Program

In reflecting on their experiences with the EOF program in general and the Summer Academy in particular, the participants spoke candidly about their lack of college preparedness. Many of the participants alluded to not being academically prepared for the rigor of college and to their feelings of isolation in settings that focused on academics. However, this University's SBP, *The EOF Summer Academy,* has among its goals, the addressing of such issues

Though most of the participants spoke of the importance of the program, Bruce, Brian, and Frank's words capture the essence of the EOF Summer Academy and how it influenced their ability to move forward in the college experience. They discussed the impact EOF had on their ability to believe they could push past their struggles in college. Bruce said:

> If I didn't go through EOF in the summer I would've failed every class and dropped out. In the summer I took writing and speech. I wrote my first essay, and the professor was like I don't know what this is. EOF really woke me up and got me used to campus life. Without EOF I would've came to school without having any support.

Brian described the experience in greater detail with emphasis on how the Bridge program set the stage for the supports available in the overall EOF program:

> EOF is a six-week summer program that motivates you, gives you counselors It's important because you have something to fall back on if you're falling behind. If I didn't have EOF I wouldn't know who to talk to if I was falling back I have a support system that's always there for me.

Frank, like Bruce, spoke in terms of waking up not just to the rigors of college but to the reality that they could succeed:

> EOF woke me up too. Coming in I was going to quit the second week of the summer program, but I had a talk with the EOF counselors, they worked with me to keep me on track.

> Each participant detailed the specifics of how EOF supported the beginning of their journey. Frank alluded to wanting to quit during the Summer Academy, Brian highlighted how he was falling behind but was able to lean on EOF, and Bruce was more descriptive in how he was not academically prepared for the rigor of college. They collectively spoke of EOF as being their backbone when they needed to believe in their abilities, and how they prepared them for what lay ahead.

EOF as Extended Family

> One theme that resonated among these participants was the idea of EOF as family. The participants focused on the importance of their EOF family and what that meant for them. A variety of family related roles and traditions were ascribed to EOF. They included: the use of family centered labels as a form of tradition and respect, seeking advice and comfort as one would from family members, using labels such as "big brothers/sisters", making the effort to hold students accountable while teaching them to be accountable for themselves (parental).

A number of participants actually used the term family when asked about support systems. Ricky, for example said:

> EOF is like extended family for me. The one thing I really appreciate is it's good to see people like me that wanted to graduate and make it. At my high school everyone that looked like me didn't do anything in their classes. I was in a lot of advance classes. I was the only black person. I never had classes with my friends. The EOF summer was the first time I had a lot of black people and Spanish people that wanted to work hard and that's what I appreciate about it.

Michael and Edward were even more detailed as they expressed the feeling of their EOF compatriots. Michael refers to the specific tradition of "speaking" which is, in the Black community an expectation for those identified as family:

> One thing I like about EOF, they say EOF is family, at first, I didn't believe it but when the semester first started, I see it. Everyone in EOF *speaks* and the people I met are friends. EOF me getting through a lot of situations.

Edward related to a feeling of brotherhood and sisterhood among those in the program.

Being here where I connect with my advisors or people on campus it's different for me. I've never had anyone being a big brother or big sister so here it felt different, and I appreciate it. I feel like I have a family here where everything flows. I can talk about my personal stuff.

This sense of family was also apparent as the participants gathered for the focus groups, as it was not unusual to see the participants greet each other with handshakes that appeared to be created to signify alliance and respect for one another and verbal greetings that contained the word *brother*.

Several of the participants acknowledged that they were not officially part of the EOF program but that they had been *adopted* by the program. Some had been introduced to the program by EOF students and some had heard about it from other sources, but all came to feel as if they belonged. Scott said "I'm not EOF. I'm adopted EOF". Wayne was particularly eloquent in his description:

Since I was cordial with EOF they adopted me even though I'm not a part of EOF. That's one thing I wish I could take back. I wish I applied. The way they adopt students you are always in their office and they are helping you, but you are not an EOF student they will take you in and support you.

Regardless if it was referred to as *extended family, adopted family,* or just *family*, the participants clearly reacted to the staff and students in the EOF program as family.

Support and Mentorship

The participants spoke of the support and mentorship they received as members of the EOF program. They spoke of the EOF staff specifically and how they provided a holistic experience with respect to supportive mentorship. Support was provided in academic, social, and emotional contexts. The following participants stressed ways in which their mentor relationships included academic concerns but were not limited to those concerns.

Joseph began with a general statement about the support offered:

It's always good to come and talk to an EOF counselor because I have personal problems, nothing school related I just need someone to talk to sometimes. That helps sometimes when you come to EOF I can just talk to my counselor even though I'm not struggling academically, someone you can relate to.

Bruce provided a more explicit statement about that support:

Mr. Q is amazing, I go to him whenever I'm stuck in any educational issues, but I do go to him for support in life. I really look up to them, but I take what they do seriously. I want to be a positive image like them to someone.

Bruce not only detailed his mentor's willingness to move beyond the academic but also sees a *Mr. Q* role for himself in the life of another person.

Scott spoke of his mentors being and providing role models, as well as supporting positive interactions among peers:

The EOF Counselors are my mentors; I can go to them anytime they are always helpful. I have friends in Male Leadership Academy, which is an organization from the EOF

program designed to keep males on a good path. We have role models to help keep us on the right path.

Robert echoed Scott and Bruce's thoughts about EOF's mentoring activities as efforts to promote positive growth:

> The EOF office is where I can go; I can go to Mr. Q's office or talk to Ms. X about my problems and get advice. This year my support helped me set goals for myself and try to become a better person.

These participants each provided examples of a vision of mentoring that stresses and supports academic success by also supporting personal growth.

Discussion

Bridge Program Links

The purpose of a SBP and of programs such as EOF is to ease the social and/or academic transition of underprepared students to college and to support those students once that initial transition is complete. The EOF Summer Academy served as the SBP program for these participants, all of whom were attached to the EOF program at this university. These participants were clear in their articulation of the importance of the Summer Academy since it introduced them to skills needed to meet the academic requirements of a college curriculum and provided access to the peers and mentors who would form the core of their on-campus support network. Though they were asked no questions specific to the summer program, a significant number of the participants realized the value and importance of the summer program and many participants credited the structure of the program to their successful navigation of the college experience. They also highlighted the continued support they received from EOF and even when their needs were not academic. The participants detailed how EOF provided emotional, social, and moral support which was essential for their progression in college.

EOF as family

Previous research validated the influence of family support on the success of FGS (Goings et al., 2015). This support has been implicated in the development of resilience and those family connections provided the motivation and guidance that allowed students to gain entry to college when the public educational system did not do so. It is important to note that those of African descent have traditionally adopted definitions of family that include both nuclear and extended family members as active and essential members of the unit. The activities of those members might include instrumental as well as social support (Cross et al., 2018.) Those family systems often extend to incorporate individuals, referred to as fictive kin, who are not related by blood, marriage, or adoption but who assume the roles of family (Spruill, et al., 2014). The type of fictive kin system at work for these participants is one where the network is built entirely from non-blood related individuals (Chatters et al., 1994). The spontaneous description of EOF as *family* by these participants is indicative of such extension. This *family* connection was particularly important as it provided access to the support of peers (siblings) who had similar experiences and challenges both before and during the transition to and progression through college. Those peers also served as a support group and safe space after the Summer program as

the participants moved into the general population of predominantly White university students. These peer relationships were supported by the EOF program as were intergenerational supportive relationships between the EOF students and EOF staff.

Mentorship

Previous research highlighted the importance of mentorship relationships for Black males in college (Johnson et al., 2020; Brooms & Davis, 2017; Williams, 2017). These mentorship relationships have been instrumental in academic achievement and are connected to higher retention rates for Black males (Dahlvig, 2010; Brittian, Sy, & Stokes, 2009). Mentorship has proven to be a valuable commodity in supporting the Black males in the study. Being Black male FGS, mentorship has provided the tools to encourage this population to achieve in a multitude of ways in college. Furthermore, mentorship serves as a mediating protective factor among Black males (Bennet, 2020). For these participants an important feature of this mentorship was the willingness and ability of the mentors to move beyond academics. Based upon the responses of these participants it was apparent that this type of mentorship not only increased the chances of retention for these students but allowed them to think and see themselves occupying such a role for others in the future.

Implications

This work has implications for the development of both SBPs and for programs that provide services subsequent to those programs. For these participants, a stand-alone bridge program would have been insufficient to support retention, graduation, or success after college. There is a need for consistent, coherent, and growth producing programs that span the college career of these Black male students. Those programs must also address the lives and life experiences of these students which would imply a need to hire staff who can relate to the students. The way in which these Black male students identified with EOF as a fictive kinship group, which is appropriate given their racial/cultural identity, would seem to indicate a need to be mindful of cultural issues in the development of support structure for these students.

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Co-requisite Redesign Leads to Increased College Algebra Success and College Completion

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Abstract

An alarming number of students enter community college underprepared for college-level mathematics. As open access institutions, community colleges must lay the foundation for success for these students by providing supports needed to ensure student success in college-level coursework. The pedagogues presented in this paper are applicable across disciplines as they are based upon research-based and proven methodologies. The findings of the quasi-experimental research performed by the authors demonstrate that application of the methodologies discussed show promise and should be repeated and brought to scale.

Keywords: Corequisite College Algebra, Redesign

Introduction

To comply with state mandates to improve student success and retention outcomes, faculty at a rural serving community college launched a technological redesign of the college's Developmental Mathematics Program in fall 2011. To prepare for the redesign, faculty researched journal publications, visited colleges with successful redesigns and consulted with experts. The institution funded construction of an 84-unit computer lab to support developmental math instruction. Over the next four years, students were increasingly successfully in completing developmental coursework. Of the 1,010 unique students who participated in the original redesign, 30 percent enrolled in a college algebra course in a future semester; 21 percent were successful in a college algebra course in a future semester; but only 6 percent earned an associate degree. Recognizing that improved success in developmental coursework was not leading to improved success in college-level algebra, nor with improved degree attainment, once again, the faculty turned to the literature to identify best practices to support improved student outcomes. Undertaking the design of a corequisite college algebra course, or any well-designed course, that is research-based, student-centered, success-oriented, and equitable for all students is a challenging task. This paper presents a detailed explanation of the processes taken to design an equitable, student-centered and success-oriented process to help students underprepared in mathematics not only complete required college-level coursework, but ultimately earn a credential. The article includes a discussion of course structure, student expectations, and institutional support.

Literature Review

"Life is full of risks, and learning math is one of them." (Brooks, 1989, p.143). Math has been the dreaded four-letter word for students at all levels, but especially in college as only an average of 15 percent of students will complete a gatekeeper college-level math course within their first two years (Zachry-Rutschow, Richburg-Hayes, Brock, Orr, Cerna, Cullinan, & Martin, 2011). This may be in part due to the large number of students who are considered

underprepared and require some form of remediation prior to enrolling in college-level coursework. Nearly 70 percent of students starting at public two-year institutions require at least one remedial course with almost half taking two or more remedial courses (Chen & Simone, 2016). Additionally, remediation is more common within several demographic groups including Blacks and Hispanics, students from low-income backgrounds, first-generation students, and female students (Chen & Simone, 2016).

Of the students who enroll in a remedial math sequence, only 30 percent make it through the sequence and even fewer make it through college-level math coursework (Attewell, Lavin, Domina, & Levey, 2006; Zachry-Rutschow et al., 2011). The remedial course sequence also extends the time to degree completion, so these students also earn degrees at a lower rate than students who do not require remediation (Adelman, 2004; Chen & Simone, 2016). There is no denying reform is needed in developmental education. "It is no longer sufficient for instructors to simply teach the way they have been taught. They must be able to design and deliver instruction that is effective for the adult learners who attend 21st century community colleges, and they must do this using the most current research available" (Boylan et al., 2019).

Remediation Reforms

Colleges have attempted several different types of developmental education course reform initiatives in an attempt to address the low completion rates of underprepared students through gateway courses. The most common types of reform include boot camps, compression, and modularization (Edgecombe, Cormier, Bickerstaff, & Barragan, 2013). Boot camps are generally offered over the summer through a short-term course that essentially prepares students to pass placement exams to accelerate into college-level coursework (Edgecombe et al., 2013). Compression takes the course sequence and squeezes the content into a series of courses over one semester instead of across several semesters in an attempt to shorten the time it takes students to get to college-level coursework (Edgecombe et al, 2013). Modularization breaks the curriculum into smaller bite-sized pieces that are also often tailored to academic needs (Edgecombe et al, 2013).

Edgecombe et al. (2013) analyzed 40 institutions implementing these reforms and noted how these developmental education reform efforts to date have had limited impacts, especially longer term. This may be in part from the tendency for colleges to adopt minimally disruptive and small-scale approaches which rarely require faculty to profoundly alter what they do in the classroom and may be a necessary step to adequately prepare students for the next level of college coursework (Edgecombe et al., (2013). In 2013, Florida took an entirely different approach in passing Senate Bill 1720 which removed placement requirements and allowed students to enroll directly in college-level coursework (Hu, Park, Woods, Tandberg, Richard, & Hankerson, 2016). The following year, more students enrolled in and passed gateway college-level courses, but the overall success rate of those courses declined due to the acceleration of underprepared students who were not provided with supports needed to be successful in gateway courses (Hu et al., 2016).

Another approach is corequisite remediation or supplemental education which advances students into college-level coursework with additional academic supports (Logue, Douglas, & Watanabe-Rose, 2019). Logue et al. (2019) reviews the outcomes of 907 students who were considered underprepared and randomly placed into traditional remediation or the college-level corequisite model and found significant improvements to both short-term outcomes as well as long-term outcomes for the latter group. Only 39 percent of students in traditional remediation passed while 56 percent of those in the college-level corequisite model passed (Logue et al., 2019). Another study showed not only an improvement in pass-rate for students accelerated through a corequisite model over a prerequisite model, but qualitative student responses indicated a higher level of enthusiasm with the learning process and higher active engagement (Kashyap & Matthew, 2017). Long-term outcomes showed the traditional remediation students had an average of 5.2 quantitative course enrollments to pass the general education requirements while the corequisite group had only 2.6 which is a huge time and cost savings for students and greatly reduces potential exit points (Logue et al., 2019). Finally, the graduation rates for these groups showed nearly 50 percent more corequisite students graduated compared to the traditional remediation students over a three-year period with little to no gaps between white students and students of color or from different socioeconomic backgrounds (Logue et al., 2019).

Course Structure

According to Eddy and Hogan (2014), a course with moderate structure increases course performance for all student populations, but especially so for Black students and first-generation students. A moderate-structure course is one in which there is at least one graded preparatory assignment or graded review assignment per week and students talk 15-40 percent of course time through in-class engagement activities such as clicker questions, worksheets, or case studies (Eddy & Hogan, 2014). Increased classroom structure and intentionally designed classroom strategies lead to a change in the behaviors of students guiding them to become better thinkers and reasoners (Glaser, 1984).

Research has also shown that active learning strategies which engage students in the process of learning through activities and/or discussion in class, as opposed to passively listening to an expert while emphasizing higher-order thinking increases student performance in science, engineering, and mathematics. Data supports that "active learning confers disproportionate benefits for STEM students from disadvantaged backgrounds and for female students in male-dominated fields" (Freeman et al., 2014 p. 4). Goals and learning objectives are of paramount importance when designing a course. For students to master outcomes requiring higher order thought levels, activities and assignments that promote critical thinking must be included (Loving & Wilson, 2000).

Course Redesign

After reviewing the literature and institutional data, faculty hypothesized that accelerating developmental students directly into a corequisite college algebra course and

providing needed student supports would lead to higher college algebra success rates by eliminating at least one barrier to college completion.

Corequisite college algebra pairs a three-credit hour college algebra course with a two-credit hour corequisite workshop course. A mathematics ACT score of 19 or above is required for placement into the corequisite college algebra course offered at this institution. For this study, students with a mathematics ACT score of 16 – 18 with a declared major requiring college algebra were accelerated into sections of corequisite college algebra that provided specific student supports referred to as AY (Accelerate You) corequisite college algebra. Program majors included: Associate in Arts, Associates in Science, Business Administration, Nursing, Health Science Technology, Radiography, Physical Therapist Assistant, Diagnostic Medical Sonography, and Undecided. Students who had previously taken a developmental mathematics or corequisite course were excluded from the study. Students were monitored to verify enrollment and success in college algebra, and attainment of an Associate Degree.

To ensure the program redesign supported equity, data was disaggregated by under-represented minority (URM) or non-under-represented minority (non-URM) status. At this institution, URM students include those who self-identify as Black or African American, Hispanic or Latino, two or more races, American Indian or Alaska native, or Native Hawaiian or Other Pacific Islander. Non-URM students include those who self-identify as White or Asian.

As part of the redesign, faculty verified that college-level competencies were appropriately covered by course activities and assessments. Faculty outlined and compared competencies of the highest developmental mathematics course, intermediate algebra, with college algebra. Intermediate algebra competencies were coded as mandatory, optional, or unnecessary. Competencies were considered mandatory if they immediately preceded and were required to master a skill in college algebra, optional if the competency was useful but not required for completion of college algebra, and unnecessary if the competency was not a pre-requisite for college algebra. Faculty also gathered sample assignments and assessments to verify that the newly designed AY corequisite course paralleled the expectations and rigor of the traditionally taught course.

Faculty elected to use a blended design when developing the AY corequisite college algebra course. The redesigned course includes corequisite course curriculum blended within college-level material into a single semester-long course as described by Edgecombe et al., 2013. Integrating the remedial topics within the college-level course provided ample opportunity for timely review and allows the course to flow seamlessly. Figure 1 illustrates the elements of the redesigned course.
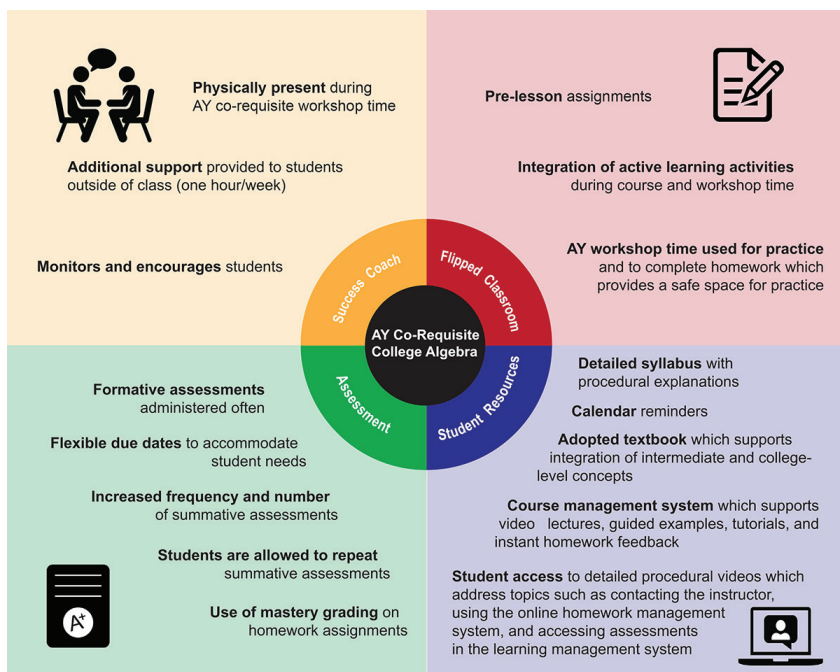
Figure 1

Flipped Classroom

Every detail of a well-structured course must be planned, including student expectations. "Student success is fostered when students feel personally significant" (Cuseo, 2012). Providing clear expectations and sufficient supports conveys the message to students that they matter. Aligning course components to support each other within the context of the course helps students focus on the most important information (Shaw et al., 2016).

To maximize student engagement in AY corequisite college algebra, faculty elected to incorporate the modified flipped classroom design described by Ariovich & Walker (2014). Using the modified flipped classroom design supports the integration of intermediate and college-level concepts and supports the use of collaborative and active learning activities. The course management system makes the redesigned course more manageable for students providing computer-aided instruction including video lectures; guided examples and tutorials; and instant grading of homework assignments. Instructors are still needed to help students apply math concepts in the real word, provide explanations that connect broad concepts, and lead group-based work and activities.

Traditional mathematics instruction includes the instructor as lecturer and the student as a passive listener. In this system, a student's first attempt solving a problem on their own is likely to occur at home and alone. The addition of technology-based homework has provided some homework assistance to students. A safe learning environment in which students feel comfortable expressing themselves without fear or ridicule is an effective way to reduce math anxiety (Bonham & Boylan, 2011). Students who engage in reflective thinking and are given the opportunity to relate new learning to previous learning are more likely to be successful (Cuseo, 2012). Collaboration enhances academic achievement, improves students' attitudes, and increases retention (Prince, 2004). Students learn more when they are actively engaged in learning.

Student Resources

As part of the redesign, consideration was given to provide students with resources to facilitate understanding of potentially unfamiliar course requirements. For example, videos were created on topics such as how to contact the instructor, how to take an exam using the course learning management system, and how to log into the online homework management system. A course calendar that included all assignments was created and posted in the learning management system. Frequent announcements and reminders are posted to help students stay on track. Homework reminders included in the online homework management system reminds students before homework is due.

The first day of AY corequisite college algebra includes a brief introduction of course expectations, then time is spent allowing students to introduce themselves and to ask the instructor questions. During the first week of class, daily detailed homework expectations are provided to help students gain an understanding of routine class expectations followed up by an announcement posted in the learning management system and emailed to all students.

To further support student engagement in the redesigned AY corequisite college algebra course, faculty adopted a newly released textbook that incorporates intermediate and college algebra competencies. The use of the blended text allowed the pre-requisite topics to be integrated seamlessly into college-level topics. The text also includes a video notebook with pre-recorded videos. This pre-lesson activity requires skills that remain at the remembering and understanding level of the Cognitive Process Dimension and at the factual, conceptual, and procedural of the Knowledge dimension of Revised Bloom's Taxonomy of Educational Objectives (Anderson et al., 2001). Students preview lesson topics and become familiar with lesson terms and formulas. Students see problems worked for the first time and are provided an opportunity to attempt solving a problem on their own. This allows students to connect new learning with prior knowledge and activate their learning before the lesson is covered in the classroom.

During the AY college algebra classroom time, a typical lesson formatted around Revised Bloom's Taxonomy includes the following activities. First, students watch a video and preview the lesson prior to coming to class. This activity enables the student to enter

class prepared for a warmup activity to activate learning and/or a formative assessment to determine current knowledge of material. Collectively, these activities are at the apply or analyze level of the Cognitive Process Dimension and are leading students into the meta-Cognitive Knowledge Dimension. (Anderson et al., 2001). Next, the instructor provides an interactive lecture that addresses the higher order thinking topics of the lesson and problems students typically struggle with mastering on their own at the lecture and discuss level. Here the instructor models meta-cognitive and procedural knowledge dimensional procedures through applying, analyzing and evaluating problems. Instructors then begin to ask high-order questions and guide students to discussions and activities needed to master the objectives for the lesson. The AY corequisite workshop time is used for an active learning activity that allows students hands on practice with the problems from the lesson before they are asked to complete any homework problems on their own which falls at the apply, analyze, evaluate or create cognitive process dimension and procedural and meta-cognitive knowledge dimensions. (Anderson et al., 2001) Not every lesson reaches the pinnacle of the revised Bloom's Taxonomy, but the goal is that many will.

Assessment

Frequent formative assessments are used within AY college algebra class activities to provide students repeated opportunity to assess their learning. Frequent and regular mid-course feedback in the classroom helps students and faculty clarify goals and assess progress while there is still time to make changes based on that feedback (Angelo & Cross, 1993). Ideally, assessment is integrated into the instructional process such that students receive frequent unobtrusive feedback about their progress (Pellegrino et al., 2001 p.256)

An example of a learning activity that is used during the AY corequisite workshop time is to provide three formative assessment questions over the days lesson as exit questions. Once the student has answered the three questions correctly, they are free to leave the class. During this time, students may use their notes, talk to another student, or get help from the instructor or success coach. This allows the instructor the chance to verify that students are doing critical steps of the homework correctly before they are expected to complete homework assignments on their own and it gives students confidence that they are prepared for their homework assignment. Classroom observations have shown that about a third of the class answers the problems quickly and leave the room; another third may have a quick question, perhaps getting help from another student; and the final third remains feeling comfortable getting the extra help needed to master that day's assignment.

A daily homework assignment is assigned connected to each day's lesson. A practice test is assigned for each module. The practice test reviews all lessons in a module. Students are allowed unlimited attempts on homework and practice tests with no late penalties. The homework assignments and practice tests remain open for improvement until the last day of attendance for the course. Leaving these assignments open motivates students to continue to study concepts that they may not have mastered during the first attempt at

learning the material. In a traditional course, once an assignment is due, there is no motivation for the student to go back and work on material they may not have mastered early in the course. Encouraging students to continue to study previous lessons, even though the class has moved on to the next lesson, helps students master concepts that are building blocks for future lessons.

Summative assessments are given after learning has been completed to assess the degree of mastery the student has achieved on the competencies covered and if knowledge-gain has reached an acceptable level (Pellegrino et al. 2001). To be considered a powerful assessment the summative assessment must maintain close connection to the instruction and competencies of the course (Pellegrino et al., 2001).

The module test assesses student mastery of course material. Each student is given only one opportunity at a module test and must take the test proctored on a date that is provided in the course syllabus at the beginning of the semester. The course consists of five modules.

Since this is a course where students have started out below benchmark and much of the course has been designed to encourage students to continue to remediate throughout the course, during the last week of the semester one module test may be retaken for a higher grade. If it makes a difference between passing or failing the course, a second module test may be retaken if homework and quiz averages are both above 70 percent in the course. These second chances give students who have continued to work on the material throughout the semester but might not have mastered the material on pace with the course, the opportunity to pass the course within the current semester.

Success Coach

Scaffolded supports are needed as students are entering the course with various levels of previous knowledge. Scaffolding can be considered the many supports that are surrounding a student needing support so that the search is to find "an" elevator rather than "the" elevator (Cunningham & Robbins, 2012). Scaffolding has been provided in the form of instructor created videos added to the learning management system for student use as needed. An online courseware system was chosen to provide students opportunity for repeated practice, immediate feedback and immediate help while working on homework assignments.

A success coach was hired who attends the AY corequisite workshop time providing supplemental instruction. The success coaches used by the college have either a degree in mathematics, math education, and experience teaching or tutoring. Most are eligible to teach developmental math at the college. Coach and instructor move around the room answering questions and working with students as they complete the activity of the day. This scaffolding support is provided to students as required. In addition, the success coach provides an additional hour of supplemental support time each week.

College Commitments

Boylan, Calderwood and Bonham have stated that "systemic, institutional actions required to dramatically move the needle forward on college completion are the exception rather than the rule" (2019 P.47). Commitment from college leadership will be necessary for a successful redesign. Leadership at a college with a long history of commitment and focus on student success were willing to listen when faculty presented data indicating need for redesign. Redesign required investment of money and/or personnel. Leadership was willing to reassign an employee who was working as an educational specialist in the developmental education program and allow that employee to become a success coach for the AY corequisite college algebra course. This additional cost for the college was offset by the increased retention of students.

Results

Final data has revealed that the interventions are making a difference. A baseline of data was reviewed for fall 2013, 2014, and 2015 of students enrolling in a developmental math sequence for the first time and their progress was tracked over several years to determine what percent of the group would ever enroll in college level math (College Algebra) and successfully complete the course as well as obtain an associate degree. The data was then used to determine a three-year average; this group is referred to as the pre-implementation group. The same methods were utilized to collect data for fall 2016, 2017, and 2018 after implementation of the model to determine if there were overall improvements in accelerating this group of students; this group is referred to as the post-implementation group. Further, this data for the post group is disaggregated by students who participated directly in the model and those who remained in the existing sequence; these groups are referred to as post-implementation AY co-req group (post AY) and post-implementation traditional group (post traditional). The college experienced enrollment declines with average enrollments for the pre-implementation period (fall 2013 through fall 2015) being 4,393 compared to an average of 3,626 for the post-implementation period (fall 2016 through fall 2018). For the same time periods, enrollment of URM students totaled 603 and 573, respectively. Thus, the pre-implementation group had approximately a 14 percent URM rate and post-implementation had approximately a 16 percent URM rate for the college. The pre-three-year average cohort had a URM representation of 18 percent which is slightly higher than the population of the college while the post 3-year cohort had a URM representation of 20 percent which is reflective of the literature indicating this group is more likely to require remediation.

Table 1

Comparison of Pre-Implementation to Post-Implementation Three-Year Average Success Rates

Group	Term	Total Credential-Seeking Students	Underrepresented Minority Students
Pre-Implementation	Fall 2013	4,668	607
	Fall 2014	4,513	626
	Fall 2015	3,999	576
	Pre-Average	4,393	603
Post-Implementation	Fall 2016	3,787	530
	Fall 2017	3,515	550
	Fall 2018	3,577	639
	Post-Average	3,626	573

The pre-implementation group (fall 2013, 2014, and 2015) included 1,010 unique (188 URM) students over the three-year period with the post group including 769 unique students (156 URM). Pre-implementation, 30.3 percent of students enrolling in a developmental math sequence would ever enroll in college algebra, post implementation this average rose to 37.5 percent. A chi square test of independence revealed the relation between these variables was significant, $X^2(1,N=1179)=10.05, p=0.002$, less than 0.05. The increase was even more noticeable for URM students with 25 percent enrolling in college algebra pre-implementation up to 35.9 percent post-implementation; this is an increase of over 10 percent in students either completing the developmental sequence and enrolling in college algebra or being accelerated directly into a college algebra course through the model. A chi square test of independence revealed the relation between these variables was significant, $X^2(1,N=410)=5.3584$, p=0.0206, less than 0.05.

Students were not only being accelerated to college algebra at a higher rate, they were also being successful in college algebra with the three-year average success rate increasing from 21.2 percent pre-implementation to 27.4 percent post-implementation and a chi square test of independence revealed the relation between these variables was significant, $X^2(1,N=1179)=9.3798, p=0.002$, less than 0.05. The success rate for URM students also saw an increase in success in college algebra up to 21.8 percent from 17 percent pre- implementation. The rate of the two groups being awarded associate degrees also increased as shown in Table 2.

Table 2

Comparison of Pre-Implementation to Post-Implementation Three-Year Average Success Rates including URM Students

Group	Total in Cohort	Percent of Cohort Enrolling in College Algebra	Percent of Cohort Successfully Completing College Algebra	Percent of Cohort Earning Associate Degree
Pre-Three-year Average	1,010	30.30%	21.19%	6.24%
Post-Three-year Average	769	37.45%	27.44%	8.195
Pre-Three-year Average (URM)	188	25.00%	17.02%	6.38%
Post-Three-year Average (URM)	156	35.90%	21.79%	8.33%

While rates of enrollment and success in college algebra for the whole group improved, not all students participated in the AY co-requisite cohort (post AY) and instead remained in the traditional developmental sequence (post traditional). An examination of the three-year average of students who remained in the existing model (post traditional three-year average) compared to the baseline (pre-three-year average) showed very similar results with a slight increase of less than one percent to those enrolling in college algebra and being successful in college algebra. A closer examination of the students participating in the AY co-requisite model over the next three years (post AY three-year average) showed remarkable successes which can better explain the overall gains. There were 71 students out of the 769 enrolling in a development math sequence who participated in the AY co-requisite model. As per the design, 100 percent were enrolled in college algebra with 80.3 percent successfully completing the college algebra course, nearly 60 percent higher than the pre-implementation average and post-traditional group in the existing developmental math sequence. Additionally, the three-year average associate degree completion was up to 11 percent for the post AY group compared to eight percent for the post traditional group rate.

Table 3

Comparison of Post Implementation AY to Post-Implementation Traditional Three-Year Average Success Rates for Students

Group	Total in Cohort	Percentage of Cohort Enrolled in College Algebra	Percentage of Cohort Successfully Completing College Algebra	Percentage of Cohort Earning Associate Degree
Pre-Three-year Average	1010	30.30%	21.19%	6.24%
Post-AY Three-year Average	71	100.00%	80.28%	11.27%

Group	Total in Cohort	Percentage of Cohort Enrolled in College Algebra	Percentage of Cohort Successfully Completing College Algebra	Percentage of Cohort Earning Associate Degree
Post-Traditional Three-year Average	698	31.09%	22.06%	7.88%

Of the 71 students participating in the AY co-requisite model, 20 were underrepresented minorities and they all were enrolled in college algebra with 75 percent successfully completing the college algebra course, an even greater difference from the URM pre-implementation average (17 percent) and URM post- traditional group (14 percent). The percent of this group earning an associate degree is also 15 percent, higher than any other comparison group, including all other post AY students.

Table 4

Comparison of Post Implementation AY to Post-Implementation Traditional Three-Year Average Success Rates for URM Students

Group	Total in Cohort	Percentage of Cohort Enrolling in College Algebra	Percentage of Cohort Successfully Completing College Algebra	Percentage of Cohort Earning Associate Degree
URM Pre-Three-year Average	188	25.00%	17.02%	6.38%
URM Post-AY Three-year Average	20	100.00%	75.00%	15.00%
URM Post-Traditional Three-year Average	136	26.47%	13.97%	7.35%

The final data shows that that significant gains have been made in both completion of college algebra and graduation rates for the targeted population. While it is not possible to determine if the increase in success is significant for the URM population since the data set was so small, it is important to note that we have significantly increased the number of URM students who now have enrolled in a college algebra course and indications are that those students are as successful as their counterparts. Gains are impressive enough to warrant scaling of this course.

Conclusions

Boylan, Calderwood and Bonham remind us, "improving college completion rates, particularly for low income, minority, and first-generation students is a long-distance race. It will require everyone in the race to focus on the finish line, not just first hundred meters"

(2019, p. 47), Continual use of data to observe patterns and recognize attributes of students at local colleges is necessary to best serve students. Faculty and leadership who are willing to make changes based upon research-based pedagogies can develop courses and programs that will provide improved opportunities and pathways for students to be successful. Accelerating students directly into college algebra did lead to significantly higher college algebra success rates by eliminating at least one barrier to college completion at this institution. In addition, acceleration led to an increase in graduation rates for the selected group of students.

Lessons learned are that researched-based instruction will lead to improvements in student success. The course design that was modeled in this paper is not limited to the level or the subject presented. The methodologies presented could be used across disciplines to improve success rates for courses of all levels.

The redesign of a single course will not solve all the issues facing students who enter our colleges underprepared in mathematics. Many also face a variety of positive and negative life circumstances; advantages and disadvantages; attitudes and values; backgrounds and cultures; maturity levels and anxiety levels (Boylan et al., 2019). Continual improvements and small incremental changes are what will be required to bring about true reform.

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Toward a Trauma-Informed Campus: Reflections on Fostering Student Success through San Juan College's Trauma Literacy Project

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Abstract

During its Fall 2020 semester, San Juan College instituted a trauma literacy project (TLP) in response to the disproportionate effect that the COVID-19 pandemic had on its student population, 32% of whom identify as Native American. The purpose of the TLP was to infuse equity and student support throughout the programming, which consisted of professional development events aimed at increasing trauma awareness on campus as well as a trauma literacy designation pathway for instructors. Participants in the TLP reported better understanding of how to support students through trauma-informed practices. Although there was substantial participation in the programming, several steps need to be taken to catalyze an institutional cultural shift regarding trauma and equity issues moving forward.

Keywords: trauma-informed pedagogy, community college student success, equity, retention, community college student support, Critical Trauma Theory, faculty development

San Juan College, located in Farmington, New Mexico, along the border of the Navajo Nation, is a Native American Serving Non-tribal Institution (NASNTI). When the campus shut down in mid-March 2020 in response to the COVID-19 pandemic, students were disbursed across the region. Many returned to their homes on the Navajo Nation, where internet and cell phone reception are sporadic, and in some areas, non-existent, thus making attending courses that had been moved entirely online impossible for many students. Within a month, issues far more significant than spotty internet were occurring. The Navajo Nation implemented a strict lockdown that prohibited travel across the vast rural area. About 15,000 of the 75,000 homes on the Navajo Nation do not have electricity, constituting 75% of unelectrified homes in the United States (American Public Power Association, 2020), and up to 40% have to haul water (Krol, 2020), creating challenges for Navajo students who were living in remote areas to get food, water, and other supplies. The first confirmed case of COVID-19 was announced on the Navajo Nation on March 17. Within weeks, the Navajo Nation had more per capita cases and deaths than anywhere in the U.S. Moreover, the Nation comprised 75% of the COVID-19 deaths in New Mexico, despite comprising just 9% of the total state population (Shah et al., 2020). San Juan faculty members and staff shifted from scrambling to help students locate essential resources to finding ways to support students who had lost family members or were caretaking infected loved ones. Many of us who were working with students recognized that they were not only

experiencing the collective trauma of the pandemic, but that the pandemic had exacerbated many forms of trauma that our students regularly battle. We knew that something had to be done to address these issues by the time students returned in the fall.

In response to students' needs, San Juan College began its Trauma Literacy Project (TLP) in the Fall 2020 Semester as part of a two-year project designed to acknowledge the trauma of the COVID-19 pandemic and offer necessary student supports. The TLP has four main objectives:

1. To clarify referral processes for counseling and other resources and contextualize them in in the effects of trauma so that educators and other campus community members not only understand what to do, but why they should do something.
2. To train current college employees, particularly those labeled as educators (faculty, coaches, tutors) who work closely with students either in the classroom or through activities and coaching, on trauma-informed approaches, the effects of trauma on learning, and cumulative and historical trauma.
3. To support and expand existing student groups regarding mental health awareness.
4. To create a trauma-informed campus culture that is committed to continually learning and acknowledging the effects of trauma and providing resources and a safe environment for all members of the community.

Two major components of the TLP in its first year included 1) the delivery of trauma literacy sessions with a focus on equity through examination of identity as both a source of trauma and of healing and resilience and 2) the development of a trauma literacy certificate.

This article is a narrative of the development of the TLP and the program's first year activities at San Juan College. It includes highlights from an informal discussion with participants in the TLP. The first author, Danielle, was the leader of the TLP at San Juan College. The second author, Rick, serves as Danielle's doctoral dissertation chair. Together, they collaborate on trauma literacy efforts in higher education. In the following sections, we present the rationale of the program, the format and participants' reactions to the program, and next steps for future implementation. When we discuss trauma, we are using a broad definition including multiple forms of trauma to fully represent the communities we serve, such as individual trauma, historical and collective trauma, and oppression-based traumas.

Addressing Student Success through Trauma-Informed Practices Trauma-informed pedagogy is a framework for operating in the classroom based on the concept of trauma-informed care, which was developed in social services and health care (Carello, 2016; Davidson, 2017). Trauma-informed educators are not placed in official roles as mental health professionals and do not "teach trauma," but instead develop skills to recognize signs of trauma on the part of students, make referrals to counseling services or other appropriate resources, and implement practices that soothe traumatic displays and support mental health. There is not a one-size-fits-all trauma-informed framework because, ideally, each campus should design a program to specifically address its population's needs. However, most trauma-informed frameworks are built on the concepts of safety, trustworthiness, choice, collaboration, and empowerment and are

modeled on the principles of trauma-informed care developed by the Substance Abuse and Mental Health Services Administration (SAMHSA) for health care and social work.

The TLP at San Juan College was developed in response to the COVID-19 catastrophe; however, students at San Juan College struggle with other forms of trauma. Many are first-generation college students and face myriad issues associated with growing up in poverty, such as food and housing insecurity. The student body forms a minority-majority institution: 19% of the student body identifies as Hispanic, 32% as Native American, 40% as White, and 9% as other races (San Juan College Institutional Research, 2020). Racial and ethnic minorities and those living in poverty are at greater risk of trauma exposure and report diminished mental health compared to middle class White students (Larson et al., 2017; McBride, 2019; Smith et al., 2014). Over the past three years, San Juan College has increased its focus on student success through the implementation of Guided Pathways, a student success initiative that helps students navigate degree paths and focuses on ameliorating equity gaps. While the College has made a concerted effort to examine inequities, it, like many other higher education institutions, has not focused on the role that mental health disorders (MHDs) and trauma exposure play in hindering student success. Without examining the connections between trauma and its outcomes, those who service students are often not aware of root causes of students' hardships and are ill-equipped to help students address their challenges in a supportive manner (Carello & Butler, 2014; Davidson, 2017).

The prevalence of MHDs in the U.S. college-age student population has increased in the past twenty years (Oswalt et al., 2018), and suicide is the second leading cause of death among college students in the U.S. (Turner et al., 2013). Katz and Davidson (2014) found that community college students report a higher prevalence of severe MHDs, such as diagnoses of bi-polar conditions, schizophrenia, and substance abuse addiction, than do traditional college students, while at the same time reporting receiving less mental health information and treatment than traditional university students. Trauma has a strong association with MHDs (Larson et al., 2017), and community college students face greater risk of trauma exposure than their four-year institution counterparts (Davidson, 2017). Depression, substance abuse, and other MHDs are causally associated with dropping out of school (Arria, 2013), as is entering college with post-traumatic stress disorder (Boyraz et al., 2015). MHDs also impact students' grades and other areas of academic performance in higher education (Bishop, 2015). While a lack of success in college hurts students professionally and financially, failure and dropout rates also harm the institutions themselves through the loss of significant revenue (Lipson et al., 2016). Trauma is associated with cognitive delays, chronic absenteeism, and a host of other issues that can impede academic achievement (Auerbach et al., 2018; Davidson, 2017). Trauma particularly damages the learning prospects of developmental education students, which is an alarming concern at San Juan College, since nearly 80% of our students begin in developmental education courses prior to moving to alternative developmental education placement based on multiple measures, primarily high school GPA, rather than placement based on test scores.

Addressing trauma on college campuses is also important from an equity stance. Minoritized students face trauma as a result of prolonged exposure to racism, discrimination, and microaggressions, issues that may not necessarily result in a diagnosable MHD (Cote-Meke, 2014). For Indigenous students, colonialism and systemic oppression can contribute to trauma and student crises at the community college level. Cote-Meke (2014) explains that many Indigenous students "come to the classroom carrying with them not only their familial and community history of colonial and imperial imposition and the effects this has had, but also their ongoing experience of living in a society where racism and violence are perpetuated on many levels on a daily basis" (p. 113). Many Latinx students have similar experiences with anti-immigrant sentiment and systemic racism. Finally, students of color and linguistically and culturally diverse student populations who have been traditionally marginalized in public schools often experience similar oppression when entering college (Brayboy & Lomawaima, 2018; Cote-Meke, 2014).

San Juan College currently has mental health resources on campus through counseling services; however, the counselor-to-student ratio is low, and like many community college campuses, there are not enough mental health resources on campus to meet our students' needs. Currently, only one mental health counselor is available on campus to serve our student body of over 10,000. In response, cultivating a trauma-informed campus culture where everyone works together to destigmatize mental health issues and foster a sense of emotional safety was one way our College could mitigate a lack of resources for students who need support. Albright and Schwartz (2017) found that while 95% of community college faculty stated that a major aspect of their role as educators is supporting students who are experiencing mental health issues, only 58% felt prepared to recognize signs of distress in students. These findings support anecdotes from San Juan faculty and staff who began attending trauma literacy events as the COVID crisis unfolded. In fact, the most frequently cited reason for their interest in the programming was that they expressed feeling inadequate in their ability to help distressed students during the pandemic. The TLP was designed to be inclusive of all faculty and staff who play a vital role through consistent, frequent interaction with students.

Trauma Literacy Project Design

The first year of the TLP was designed to focus on providing educators with foundational information grounded in trauma-informed pedagogical frameworks. Most trauma-informed educational models do not prioritize culture and identity, instead treating these as aspects of the framework, if they are acknowledged at all; however, on San Juan College's minority-majority campus, Danielle felt that including oppression-based trauma was important because culture and identity are integral to San Juan's contexts and can play important roles in healing and resilience. Anna Nelson's (2020) micro-theory, Critical Trauma Theory (CTT), Figure 1, centers cultural identity in trauma and healing and accounts for emerging knowledge on cumulative, historical/cultural trauma, and ethnoviolence. This micro-theory also acknowledges the role that cultural resistance and resilience can play in healing by emphasizing Yosso's (2005) framework of cultural capital. Because CTT foreground's identity and culture as both sources of

oppression/trauma and of healing, important tenets for a campus such as San Juan College that serves a large population of marginalized students, it was selected as the foundational framework for the TLP. CTT draws from the SAMHSA's (2014) model, but rather than a linear framework, is circular with "cultural and other identity-based resilience, resistance, and radical healing" placed at the center (Nelson, 2020). The other guiding principles of CTT are 1) safety, including emotional, cultural, spiritual, cognitive, and physical aspects of safety; 2) trustworthiness and transparency; 3) circles of support; 4) collaboration and mutuality; and 5) pathways to power, voice, and choice (Nelson, 2020).

Figure 1

Nelson's (2020) Applied Critical Trauma Theory in Education Contexts
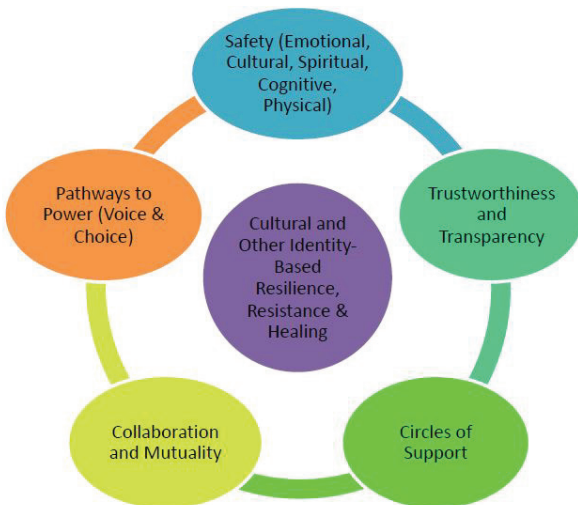
After identifying Nelson's theory as a central framework, we held a focus group comprised of a cross-section of faculty and staff over the summer to garner needs and concerns about TLP programming. To provide context and answer questions, Anna Nelson attended this focus group session as well. The feedback from the group was used to determine which types of informational sessions would be most beneficial and were coordinated with Nelson and the College's counselor.

Nine trauma literacy sessions, shown in Appendix A, were developed, and presented throughout the Fall 2020 and Spring 2021 semesters. The event topics varied, and several were presented by campus faculty and staff. One session prioritized grief and the healing effects of creative writing. Another focused specifically on the Navajo Nation and the COVID-19

pandemic's disproportionate impact on its families. Another event featured a workshop centered around making online teaching trauma-responsive for learners, wherein our College counselor walked instructors through the referral process and described accessible on-campus and local resources. The TLP was given a modest budget, most of which was used to hire Nelson, who developed and presented a three-seminar series that contextualized CTT for San Juan's academic community. The first session offered a theoretical overview of how trauma affects learners and the role that identity can play in the healing process. The second session Nelson conducted was a required presentation for all faculty during spring convocation in which Nelson discussed how to apply CTT in the classroom and provided specific techniques for creating safe spaces and validating oppression-based trauma. Nelson's third session focused on evaluating the College's educational spaces to ensure that they were trauma-responsive and conducive to incorporating anti-oppression strategies during instruction. Most sessions were open to all members of the campus community and were publicized through the College's Center for Professional Development and High-impact Practices Center. While attendance varied at each event, with 94 present for addressing grief through creative writing and 37 for implementing CTT, the collective participation in the seminars was positive, with over 300 members of the San Juan community attending at least one session.

In addition to increasing trauma awareness on campus, another goal of the TLP was to codify and validate training in trauma-informed practices. Danielle and the counselor collaborated to determine criteria so that interested faculty and staff could earn a trauma literacy designation. This designation was modeled on other programs on San Juan College's campus, such as the Safe Zone and Indigenous Zone credentials whereby College personnel can attend training and display a placard in their workspaces indicating their awareness and support of student-centered issues and allyship. Danielle and the counselor determined that earning a trauma literacy designation would require attendance at four sessions: the convocation session on CTT and the session on referrals and resources, which was recorded for those who couldn't attend in-person, and any two additional sessions. A graphic designer on campus created a logo and placard, Figure 2, for the trauma literacy designation so that they could be displayed by anyone who completed the trainings and serve as a symbol of solidarity for students, demonstrating faculty and staff awareness of trauma's detriments to learning and willingness to provide impactful resources. By April 2021, 31 College personnel had completed the trauma literacy designation, including 25 faculty, two administrators, and four staff. The trauma literacy designation pathway will continue throughout the 2021-2022 academic year through the provision of additional trauma literacy sessions.

Figure 2

Trauma Literacy Training Placard

Triumphs and Challenges of the TLP

In March 2021, Danielle held two follow-up discussions with nine College personnel who were active participants in the first year of the TLP through event attendance and completion of the trauma literacy designation. The purpose of these discussions was to explore the effectiveness of the program and what types of programming would be beneficial in the second year of the project. Several categories of responses emerged from this description, as shown in Table 1.

Table 1
Categories and Numbers of Responses from TLP Discussion Group Participants

	Respondents
Motivation for participation	
Professional development for annual review	0
Support students	9
Understand student trauma	9
Outcome	
Knowledge of campus resources	8
Need for flexibility with Students	5
Understanding of role of identity in trauma	5
Concerns/Barriers	
Lack of campus resources	8
Lack of administrative support	4
Lack of faculty concern/awareness of trauma	3
Educational experiences as traumatic	5

One aspect Danielle explored was participants' motivation for initially engaging in the TLP programming. To encourage participation in the trauma literacy designation early on, Danielle had asked the vice-president of learning if the designation could count as professional development in the annual reviews that all faculty must undertake. The administrator agreed, and this information was shared at the onset of the program in Fall 2021, when the list of trauma literacy sessions and criteria for the trauma literacy designation were shared. Despite this incentive, none of the participants Danielle interviewed indicated that this was a motive for participating. When asked why they wanted to complete this program, all nine reported that they recognized the prevalence of trauma with San Juan College's students and wanted to learn more about students' experiences and how to support them. The lead instructor of first-year experience coursework stated that students often share traumatic experiences in this course even before the pandemic and that "instructors of this class just don't know what to do or how to support our students." This desire to support students was most heavily emphasized by the four developmental education instructors who participated in the focus groups. All four felt that developmental education students were more likely to have experienced trauma and that many were in a continual state of crisis due to issues that the instructors felt compelled to support students through but were often unsure of how to do so. A reading instructor reported that trauma was a frequent topic in students' writing and that she felt "helpless and heartbroken" but did not always know how to help them despite wanting to. Two faculty members—one from nursing and one from human services—stated that they came from fields that required working with patients and clients who had experienced trauma and recognized that their students would likely

encounter trauma in their field work and perhaps even be triggered by it. They wanted to ensure that students were supported in these situations.

Discussion participants reported that they now had a better understanding of ways to support students, largely due to the counselor presentation and continuous sharing of resources for students. Several stated that they had developed a much better understanding of how important it is to be flexible and see students as whole human beings. A reading instructor said, "I find myself being more flexible, and now I know I'd rather err on the side of kindness rather than be too harsh." The first-year experience lead instructor stated that in the past she felt like she was often caught up in the technicalities "of rules" about late work and absences to ensure that learners understood how to be effective college students. She is now more accommodating about students' issues that may come up but admits that she struggles with "knowing where the line is and when I should enforce those rules."

Although many participants in the discussion stated that they now had a better idea of how to support students, about half said that they did not feel there exist enough resources on campus to prove the necessary support. They pointed out that the College has only one counselor, and the wait times for students to see her can be long. They also stated that there are not enough culturally relevant materials and resources available, which is crucial for addressing a student population that has diverse traditional approaches to mental health. One of the sessions that was most frequently cited as helpful was a session on working through grief with creative writing. Several students attended this session, as well as College personnel and community members. A developmental writing faculty member stated that this session helped to normalize grief, promote resilience, and helped students learn that they had important stories to tell. She explained that many students went on to explore their own grief and trauma in an upcoming essay and that similar events that reach students on a personal level could be especially helpful. Danielle agreed, explaining that culturally relevant, student-led activities such as art therapy would be a main focus of the TLP next year and that the campus just formed a chapter of Active Minds, a student-led national organization for college campuses that works toward destigmatizing mental health issues. Many group members stated that this was a positive start, but that more needed to be done and that it might be beyond the scope of the TLP and its $2500 budget to effectively address these issues. Four participants stated that they needed to see more administrative buy-in to a program like this to help take it to an institution-wide scale, which would include providing adequate resource funding and actively encouraging and promoting trauma literacy concepts from the platform of College leadership.

Framing trauma as an equity issue is a cornerstone of the TLP, and Anna Nelson delivered three of the 10 sessions on trauma literacy, including one session to all faculty during convocation. Danielle asked discussion participants about the effectiveness of this approach. Overwhelmingly, discussion participants stated that this was very helpful and that the focus on identity as a source of resilience was especially useful. A developmental writing instructor stated that the CTT framework allowed for "the acknowledgement of the ongoing trauma of colonization, but at the same time, the embedded strength within individual cultural practices—

that's something powerful and important to emphasize." A human services instructor recalled Nelson's first session, which focused significantly on oppression-based trauma, when a student broke down in tears and stated that she never had words to ascribe to her experiences before. "That was a powerful moment, and we need to bring this kind of training to our students more," she stated. Again, the theme of institutional buy-in emerged, as a developmental writing instructor stated that sponsoring an intensive workshop for specific trauma-informed classroom strategies and advertising techniques for facilitating difficult conversations would be helpful for educators, and that the institution could invest similarly to how they have in other strategic objectives. Another developmental writing instructor concurred: "They [administrators] say equity is important. They say that social justice is important, but I don't often see that in the policies and actions on campus[…] Often it seems that they think it's only faculty's role to address this, but it has to be a campus-wide initiative."

Another theme that emerged from these discussions was the idea that education itself can be traumatizing for students whose sociocultural attributes and experiences do not perfectly align with status-quo institutional practices. A nursing instructor discussed how the No Child Left Behind-era push for high-stakes testing has instilled unrealistic expectations of near-perfection with grades and has created stressful situations for students. The nursing instructor added that many faculty sadly do not view trauma or equity as an issue that can be addressed in their programs. The developmental math and writing instructors emphasized that many students come to them feeling traumatized by their previous school experiences which impact their current academic efforts. Many doubt their ability to succeed, and these instructors spend substantial time just convincing students that they can be successful. Several participants stated that exploring trauma brought on by education should be an issue to address in the second year of the program.

Analysis for Future Implementation

A goal of the TLP is that it becomes sustainable beyond the two-year project time frame. To ensure that trauma awareness continues, trauma literacy will become a key component of new faculty training materials at San Juan College to foster institutional trauma awareness. This step, however, may not be enough.

The TLP has been effective in bringing awareness about trauma and equity to the San Juan College campus, but many of the participants were already predisposed toward exploring these issues. One indicator of the fact that exposure to new practices alone does not change mindsets was that no one who had not already decided to work toward a trauma literacy designation decided to work toward it after Nelson's all-faculty presentation in the spring. The session alone did not seem to inspire additional college personnel to "get on board." Changing the culture of the campus would likely take more institutional support in terms of time, money, and specific actions that model the importance of trauma issues. Another way to broaden the scale of trauma literacy and equity is to create more events that focus on students. Although the TLP sessions during the first year allowed for student participation, they were not geared toward students. Widespread student engagement could yield more faculty and staff interest and

eventually, comprehensive administrative buy-in could inspire an institutional cultural shift that acknowledges the role that trauma awareness plays in student success and equity issues.

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Appendix A

Trauma Literacy Series for the TLP at San Juan College

Trauma Literacy Series

What?

Earn an "endorsement" in trauma-literacy similar to Safe Zone or Indigenous Zone. You will learn how trauma, including oppression-based trauma, affects our students, how to mitigate that trauma with best practices, and how to refer students for help.

The goal of trauma literacy is not to become a mental health professional, but rather to learn about how trauma affects our students and how to get them help.

Why?

Many of us have worked with students who are in crisis or seem to become derailed after a hardship, but we aren't sure what to do to help them. Mental health issues were on the rise on college campuses before COVID-19, but the pandemic has exacerbated depression and anxiety in college students. Additionally, trauma goes beyond what many of us think of as a mental health issue to include oppression-based traumas such as collective and historic trauma. This

series explores all forms of trauma and emphasizes critical trauma theory, which centers identity as a source of resilience and healing. Trauma and other mental health issues are equity issues.

How?

During the 2020-2021 academic year, attend the winter convocation session during the learning session on trauma literacy, the referrals and resources session offered by Julia Dengel, and 2 additional sessions of your choosing. Upon completion of 4 sessions, you will earn the "trauma literacy" designation.

<div align="center">

SESSIONS
Required
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Referrals and SJC Resources, led by Julia Dengel. Julia is the counselor at SJC. In this session, Julia will discuss how to make referrals for help and the resources that are available for students at SJC. **Friday, October 23, 12:00-1:30** (*this session will also be offered in a session during spring convocation*)

Spring Convocation Session: Critical Trauma Theory, led by Anna Nelson, the developer of critical trauma theory. Anna is a professor of social work at NMSU-Albuquerque. She has over 20 years of clinical and policy experience. In this session, she will give a theoretical overview of how trauma affects learners behaviorally and neurobiologically and of critical trauma theory, which acknowledges oppression-based trauma and the role of identity in trauma and healing. She will follow up with how apply critical trauma theory in a classroom setting. The purpose of this session is not to turn faculty into counselors, but rather to help them better understand our students' experiences and develop some simple classroom strategies.

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Choose any two

FALL SESSIONS
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Creative Writing as Window for Grief, led by Danielle Sullivan. Danielle will share her journey through grief and how creative writing helped her process and understand her emotions. She will share excerpts from her writing and general information about typical and atypical grief responses. Resources will be provided. **Thursday, September 17, 3:00-4:00**

The Navajo Nation and COVID, led by Elaine Benally, Director of SJC West Campus and co-facilitated by Danielle Sullivan. Participants will watch a short film (approximately 30 minutes long) that covered COVID on the Navajo Nation as well as historical and collective trauma. Following the film, there will be a discussion and sharing of stories and experiences. Friday, September 18, 1:00-2:30. **Friday, September 18, 1:00-2:30**

Critical Trauma Theory, led by Anna Nelson, the developer of critical trauma theory. Anna is a professor of social work at NMSU-Albuquerque. She has over 20 years of clinical and policy experience. In this session, she will give a theoretical overview of how trauma affects learners behaviorally and neurobiologically and of critical trauma theory, which acknowledges oppression-based trauma and the role of identity in trauma and healing. **Friday, September 25 2:30-4:30 pm**

Anxiety, Coping and Stress: Help Students Manage and Overcome current Mental Health Challenges, an interactive webinar led by Dr. R. Kelly Crace, the Associate Vice President for Health and Wellness and the Director of the Center for Mindfulness & Authentic Excellence (CMAX) at The College of William and Mary. The session will offer crucial, actionable takeaways for helping students effectively cope, engage in healthy self-care and manage stress/fear effectively. **Wednesday, September 30, 2020. 12:00-1:30 p.m.**

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SPRING SESSIONS

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Referrals and SJC Resources, led by Julia Dengel. Julia is the counselor at SJC. In this session, Julia will discuss how to make referrals for help and the resources that are available for students at SJC. **Spring Convocation Session, time and date TBD**

Evaluating Your Practices/Department workshop, led by Anna Nelson. Anna will lead participants through an evaluation of current practices and develop plans to implement trauma-informed practices. **Friday, January 29, 2:30-3:30.**

Can Online Teaching be Trauma Responsive? discussion facilitated by Danielle Sullivan, based on this article. Participants will read and discuss this article and develop trauma-responsive pedagogical strategies. **Friday, February 19, 10 a.m.**

Danielle Sullivan is an English and Education faculty member at San Juan College. Her research focuses on trauma-informed pedagogy and equity issues, and her research has been included in *Community College Review* and *Community Literacy Journal*. She is ABD in curriculum and instruction at New Mexico State University.

Rick Marlatt is Associate Professor and Interim School Director at New Mexico State University. His work in English language arts bridges the fields of teacher education, creative writing, digital literacies, literature study, and sociocultural theory. His co-edited book, *Esports Research and its Integration in Education*, will be published in 2022.

Achieving Student Success through Alumni Re-activation: A Virtual Interpersonal Engagement Approach

Written by:
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Abstract

The 2020-2021 academic year was far from ordinary and presented numerous challenges, including the ability to support student success in a virtual learning environment. We discovered remote learning enabled our ability to maximize a previously underutilized resource in attaining student success, our alumni. Utilizing a model developed by Travis York, that includes student engagement, satisfaction, and post college performance in addition to more traditional measures (academic achievement, learning objectives, and persistence) as attaining student success, we present three virtual contexts where alumni interacted with current students. These interpersonal engagements achieved positive impact from both students and alumni as evidenced by student quantitative and qualitative surveys, event attendance records, and alumni reflection. Highly applicable to any program with an alumni base, we conclude with considerations for future collaborations between alumni and students.

Introduction

In the preface to the fall 2020 *Journal of Access, Retention & Inclusion in Higher Education*, Denise Lujan, President of the National Organization for Student Success, wrote:

> Those of us in higher education use "student success" frequently, particularly when discussing retention and degree completion. However, I suspect that we have many different definitions of student success and what it looks like for institutions, faculty and staff, and students. The beauty of these differing definitions is that we can focus on our piece and define what student success means and looks like to us in a way that supports the overall mission and vision of our institution. Focusing on what we can impact allows for the innovation and creation of programs and policies that improve student academic and professional success (p. v).

Lujan's recognition of linking "student success" with institutional vision and mission affords a myriad of innovative approaches to enable students to experience fulfillment within the university context.

Higher education operations were hardly spared by extensive disruptors due to the COVID-19 pandemic of 2020 and 2021. As we scrambled to discover strategies for providing meaningful educational experiences and maintain our commitments for student success, it became apparent that socio-emotional needs in our community of learners called for just as much attention as the pedagogical considerations needed for effective content delivery. Committed to student success, we asked ourselves three questions: 1) how can we create meaningful moments for interpersonal engagement?; 2) how can we provide experiences that will move learners beyond disengaged listening to a pre-recorded lecture?; and 3) what can be done to preserve student success given a completely virtual curricular, co-curricular, and service college experience?

To answer these questions and answer Lujan's call, we considered our available resources. Harvard economist Claudia Golden (2016) noted the power of human capital and how investments made in individuals beyond financial incentive – such as education, skill development, and experience – results in greater productivity. A treasure-trove of riches, beyond financial contributions, rests in human capital currency that members of a community and its stakeholders can contribute to enrich others and, in our circumstance, promote student success. We soon rediscovered a population of untapped stakeholders: our alumni. Previously not considered, largely due to geographic distance, we recognized in a state of remote learning our program's alumni could contribute gifts of social/network relationships, intellect, and life experiences in a virtual educational model to drive student success outcomes.

Utilizing a model of student success that includes student engagement, satisfaction, and post college performance as markers of student success, we collected correspondence with participating alumni and anonymous surveys completed by undergraduate students at the end of the academic year. The qualitative and quantitative feedback indicated appreciation for the interactions in three settings: honors courses, the co-curricular Honors Student Association (H.S.A.), and undergraduate recruitment. In short, the community experience for our current students grew and diversified through the time investment from our alumni. In this paper, we first review the insights and definitional perspectives offered by York and his colleagues, outline the methodology for collecting data that aligns with markers of student success, and then discuss how alumni contributed to student success even in a virtual context. As a programmatic benefit beyond immediate impact, alumni as stakeholders in the program influence student success and often inspire current students to follow suit through their own engagement when they transition to alumni status. We begin with a brief overview of our context.

Student Success: Our Context

By a more traditional definition of "student success", viewed through the lenses of recruitment, retention, degree achievement and academic completion, the primary cohort of students we serve fairs well. We annually recruit eighty incoming first year students. For over a decade we consistently meet enrollment targets, enjoy an over 95% retention rate, an over 80% four-year graduation rate, and 98% graduate with a minimum *cum laude* (3.25) grade point average. We hold particular pride in our diversity. The incoming class of fall 2021, represents

forty-one different academic majors, self-identifies as 70% women, 30% men and 24.4% underrepresented minority (URM). We attribute programmatic success to the emphasis we place on community building. This focus stems from our institution's strategic plan, which aims to "enhance meaningful and engaging experiences among and between students, faculty, staff, alumni, and local communities to promote lifelong learning" (WCUPA Strategic Plan, 2021). Such learning pathways that produce student success include community engagement, professional development, diversity and inclusion, and sustainability. The COVID pandemic put the goal of community engagement to a monumental test.

The National Conference on State Legislatures reported in spring 2020, more than 1,300 colleges and universities across all fifty states canceled in-person classes or shifted to online-only instruction (Smalley, 2021). According to data gathered by the College Crisis Initiative (2021), as quickly as fall 2020, 44% of institutions developed fully or primarily online instruction and 21% used a hybrid model. Our institution shifted to remote learning from mid-March 2020 through the summer of 2021; the move clearly thwarted community. Indeed, this sense of loss prompted educational theorist, Michael W. Ledoux, to cast a skeptical eye towards online education's ability to achieve learning outcomes and cautioned that learning, delivered in a remote context, "must acknowledge factors beyond the confines of a course to create a learning community" (196). In spring 2020, and throughout the pandemic, we faced a crisis moment of both student engagement and satisfaction. While never discarding student success as grounded in academic achievement, perseverance, and acquisition of educational outcomes, we needed to heighten our energy towards inspiring student motivation. An answer came to us through increased intentional utilization of alumni emphasizing interpersonal engagement.

At the forefront of negotiating the obstacles presented by COVID, we retained our deep dedication to preserving transformational experiences with a principle we call *interpersonal engagement*. From our previous work (Dean & Jendzurski, 2012 & 2013), we found that transformational learning occurs when students critically think and subsequently reflect upon personal connections, conversations, and other interactions shared with cultural others. In the interpersonal engagement process, students: 1) listen to the stories of others, 2) probe for additional insight through questions they pose in face-to-face dialogue, 3) devote time to a process of focused reflection following the exchange of information (Dean & Jendzurski, 2012 & 2013). Historically, the centrality of interpersonal engagement has remained a cornerstone of transformational leadership success among our students and graduated alumni. With an understanding of our context, we turn to supporting literature.

Literature Review

Existing research, particularly from scholars in education and business, champion the value alumni afford their institutions. Much attention is devoted to financial and philanthropic relationships (Stevick, 2010; Tanis, 2020; Tuma et al., 2020). The implied impact of financial support from generous alumni, as seen in areas such as endowing programs and funding scholarships, unquestionably heightens opportunities for student success, but there is scant research to show that financial contributions from alumni directly affect student success.

Beyond a financial focus, growing research exists on ways alumni engagement directly correlates with various aspects of student success. Research crediting alumni interaction as driving student success include increased: a) career opportunities, mentoring, and networking experiences (Ashline, 2017; Dollinger et al., 2019; Larsson et al., 2021; Skrzypek et al., 2019), b) engagement in the campus community both personally and academically (Dollinger et al., 2019), c) sense of connectedness and integration with university community (Ebert et al., 2015; Gamlath, 2021; Priest & Donley, 2014; Skrzypek et al., 2019), and d) interpersonal skills, self-esteem, and confidence with overcoming adversity (Gamlath, 2021; Larsson et al., 2021; Long, 2016; Priest & Donley, 2014; Skrzypek et al., 2019). Other research suggests that undergraduates who perceive benefits from alumni interactions will likely attend similar programs and participate in them as alumni (Dollinger et al., 2019; Ebert et al., 2015). These studies clearly illustrate student interpersonal engagement with alumni enhance student success.

Measuring Student Success: York et al.'s Theoretical Underpinning

In 2015, frustrated by the notion that student success "has been applied with increasing frequency as a catchall phrase encompassing numerous student outcomes" (1), researcher Travis York and colleagues conducted an extensive literature review that led to a model defining student success within the academic context of higher education. York et al. adapted an Inputs-Environments-Outcome (I-O-E) Model to view college outcomes as a function of three elements: 1) inputs, or the life experiences students bring with them to college; 2) environment, or the full range of contextual experiences during college; and 3) outcomes, or the characteristics, knowledge, skills, attitudes, values, beliefs, and behaviors students exhibit after the college experience concludes (53).

In defining student success, York et al. turned to research conducted by a team led by higher education scholar George D. Kuh, who identified contributing factors in defining student success: a) academic achievement, b) persistence, c) engagement in educationally purposeful activities, d) acquisition of desired educational outcomes of knowledge, skills and competencies, e) persistence, f) satisfaction, and g) post-college performance. Academic achievement was most regularly measured through grades or cumulative grade point average (GPA). Indeed, York et al. (2016) confirmed that GPA represents the most common metric for claiming student success across all the literature they reviewed (8).

In terms of the other factors of student success identified, two prime measurements exist to capture persistence: retention rates and time to degree completion. University institutional research (IR) directors often collect such data and make it available to departments and programs. Engagement is viewed as a "psychological desire or motivation to participate in learning" (5). Several scholars contended that student motivation stands as a primary factor to student academic success (Beghetto, 2004). More than simply showing up to an event, engagement suggests being an active participant, sharing the experience with others, and attending events without need for compensation. Accomplishment of gained knowledge, skills, and competencies, comes through measurements at the course, program and/or institutional level. Satisfaction is often gleaned through course evaluations and related student feedback

mechanisms. Finally, career success comes through extrinsic measures such as attainment rates to graduate/professional school or job acquisition as well as intrinsic measures as self-reports of "participants perception of the opportunity to develop potential, realize ambitions, enhance career options and increase self-satisfaction" (8). In their conclusions, York et al., recommend broadening voices involved in determining student success, giving increased attention to student voices and other stakeholders such as parents or employers. To that end, we proposed alumni as an additional population who could help drive student success.

Method

We designed and distributed a survey to honors students enrolled in fall 2021, based on York et al.'s conceptualization of student success including student satisfaction. Using Qualtrics, the questionnaire aimed to elicit students' perceived value of having alumni participation in the areas of academic, co-curricular, and service contexts. After collecting demographics, we adapted a customer satisfaction (CSAT) survey based on a five-point Likert Scale (1 = extremely dissatisfied, and 5 = extremely satisfied) to evaluate students' satisfaction levels with the alumni panels and alumni participation during recruitment interviews. Beyond asking the value students experienced in the moment, we also asked them their motivation (derived from virtual experiences with alumni) to attend a similar event, promote such events to peers, and willingness to engage as an alumni participant post-graduation. The survey concluded with an opportunity for students to share a meaningful experience from the fall 2020 or spring 2021 semesters related to some direct or indirect interaction with participating alumni. We performed a content analysis of student responses to determine common themes based on their interactions.

Results

We received 96 responses representing a 53.3% response rate. Within our responses, 94.5% indicated either satisfaction or extreme satisfaction with alumni panels; 82.4% indicated very and extreme likelihood to prioritize attending similar events; and 96.3% responded they would probably or definitely recommend alumni interactions for their peers. We asked students to indicate where they found particular value; see results in Table I. Our final Likert question yielded an 80.3% response rate of students expressing somewhat to extreme likelihood of participating in panels or interview sessions as future alumni.

Table I - Value Students Draw from Alumni Interaction

1	Awareness of networking opportunities	18%
2	Affirmation of your vocational path	12%
3	Affirmation of your membership in honors	18%
4	Affirmation of your career readiness	10%
5	Insight to the utility of the honors curriculum	15%
6	Insight to leadership skills	16%
7	Insight to community service	8%
8	None	1%
9	Other	2%

A content analysis of student free response showed student value clustered into three themes: vocational support, program affirmation, and observed leadership skills.

Discussion

Our data indicate students overwhelmingly viewed their interpersonal engagement with alumni as valuable in the moment, would prioritize their participation in future events, and would promote such experiences to others. By our definition, drawn from York et al's. model that includes engagement and motivation of student success, the virtual opportunities we championed made an impact. Indeed, with an average attendance of 87 at HSA weekly meetings, the three featuring alumni surpassed the average, each rising above 100.

The most frequent free responses centered on the value students gleaned with respect to their future selves, specifically from affirmation of their vocational direction, their choice in major and advice for graduate/professional schools. These free responses capture values 1, 2 and 4 (40.14%) from Table I. One student noted, "I was amazed by the dedication of the alumni speakers to their vocations---they all seemed to really enjoy what they do. It gave me real excitement for what I see as next steps for me." Another student, paired with an alumnus on the virtual recruitment event, commented, "I spoke with a current teacher and he shared with me his lesson plans for the coming week. We also learned we had nearly identical involvements as WCU students. I learned a practical, 'real-life' approach to lesson planning from an actual teacher, and I learned that my involvements will benefit my future job opportunities and career path." Not only did students offer feedback about their 'in the moment' experiences with alumni but several indicated how the initial meetings we helped facilitate led to further interaction. One student indicated, "I emailed some of the alumni about their career choices and how they knew what path was right for them." Another student told us that a subsequent conversation with an alum landed him an internship in Washington, D. C. Finally, with respect to vocation, a number of comments centered on graduate/professional school preparation and application. "One of the alumni on the panel," claimed a student, "was a resident and another was currently in medical school. I found their experiences and insight really helpful as I know no one currently in that state of their pursuit of a medical career. The insights they shared about the application process were really valuable." Another student gained an unexpected link between international travel and the graduate school application process. The student recounted, "I particularly enjoyed when alumni spoke about their trips to South Africa, explaining the relationships made, giving details about specific moments of the trip, describing what they saw and how it helped the community. One alumni told how he talked about his international travel to South Africa in his grad school application and how that arose as a major point of conversation in the interview. It made me realize how I could share some of my experiences as I put together my applications."

As a corollary to vocation, several students courageously shared their anxieties of not having certainty of their vocational directions and found assurance from interactions with alumni. "The alumni," one student disclosed, "provided comfort in explaining how many changed majors, made mistakes, and have turned out just fine." Another student shared, "She changed majors at least once and still was able to graduate within four years. Her insight showed

me even if I struggle, I can still graduate and end up well." One student even made the choice to change majors after interacting with alumni, writing, "I attended the panel as a psychology major; however, I was debating changing my major to education. Simply participating in a conversation with the teaching alumni confirmed my desire to change my major."

The second number of comments clustered around the theme of reinforced value of what the honors program offers current students, capturing values 3 and 5 (32.18%) in Table I. "I did recruitment interviews with Dan; it was nice to hear him talk about his involvement with honors almost ten years ago and how it carried over into his teaching job. You can tell how professional and successful he is and how honors helped with this." Another wrote, "I had several interactions with alumni who had this honors curriculum and are pursuing a career or have an established career in medicine. They helped me see how the education we get is a real benefit and leads to success." Following the medical vein, another student wrote, "I was not thrilled when I found out honors required a full course in public speaking in the very first year and that public speaking was woven into several other classes in our curriculum. I was shocked when the alumni, a working surgeon, shared that one of the best skills he got from honors was public speaking. He told how important it was in his job to communicate complex information in ways others could understand and how so many of his colleagues press him to be 'the one' who speaks to groups because they are all so uncomfortable in those situations because no one covers any of that in medical school. I guess I'm glad now that I will have that practice in public speaking."

Beyond affirmation for specific course work, students also saw how leadership was present through their interactions with alumni, (item 6, 16.26% in Table I). "I was with Matt in an interview team," wrote a student. "He was such a great leader during our interviews. He made the candidates feel so comfortable and he validated their points and encouraged them to share their experiences." Another student commented, "During the interviews, I met an honors alumnus that demonstrated leadership skills very blatantly. While allowing me and my peer underclassman to lead the interactions with the candidates, he gave specific direction in how he wanted the interviews to go. As a result, the interview with the recruits went extremely well." Finally, referring to an alumnus who gave a class presentation on anti-racism, a student reflected, "She was organized when she came to speak and had a powerful message to share. She wanted to inform us rather than shame or blame us; she knows how to earn respect and make an impact."

A final testament of alumni enhancement of student success exists with the 80.28% of students who expressed willingness to return to the honors community, once matriculated, to offer service to future students in our program. One student captured the sentiment of many by succinctly recounting, "I would be very excited to hopefully help out other students on a panel the same way this alumni panel helped me." Recognition that their presence matters, clearly supports the notion of satisfaction related to student success.

Future Research

Thus, as we transition back to 'post-COVID normal," revising former patterns of alumni-student interaction holds merit as virtual interactions could prove advantageous over interactions in shared physical space.

The unanticipated success of virtually involving alumni in the life of the current honors community, motivates consideration of additional outlets for collaboration. While countless opportunities present themselves, we focus on four areas of maximizing alumni integration for driving student success: 1) student capstone projects, 2) innovative methods that enhance direct student-alumni connectivity, 3) collaborative research outlets, and 4) facilitating network opportunities through an alumni database.

First, the culmination of our curriculum involves a senior level capstone project. Based on the insights from previous studies on the value alumni mentorship provides undergraduates (Tyran & Garcia, 2015), we are exploring ways we might virtually link students to alumni who share project interests. Second, because we emphasize interdisciplinary work, the ability to match students with alumni from a variety of disciplinary backgrounds could foster some innovative outcomes. One particularly intriguing suggestion comes from Chi, Jones, and Grandham who discuss the value of a platform for alumni to student connectivity, Smart Alumni System (SAS), which promotes access through mobile technologies such as cell phones via app development. Collaboration with colleagues in Computer Science could explore potential creation and dissemination of a program specific app, enhancing access ease for interpersonal engagement, a driver of student success.

Third, promotion of collaborative scholarship between a professor and student or a student and field practitioner, holds great value for a student's learning and vocational discernment. Leadership development scholars Sue Gordon and Jennifer Edwards note that most opportunities for students engaging in research exist on campuses but often that too is limited, resulting in a lack of student research experience which disadvantages them when it comes time for future graduate study (2012, 206). They recommend the creation of virtual research teams involved in "action research," characterized as a "participatory, democratic process concerned with developing practical knowing in the pursuit of worthwhile human purposes grounded in a participatory worldview" (208). This work also supports the research team led by Richard Heller who determined alumni who were surveyed about participation in an alumni group listed as one of their top motivations "collaborative research opportunities" (2015, 6). Based on the ideas Gordon and Edwards promote, merit exists in extending a collaborative call for research between students and alumni. The simple increase in scope of application through technological connectivity holds value.

Finally, institutions should dedicate resources and priority to maintaining an active honors alumni database, supporting active channels of communication between alumni and the honors college, and exploring the formation of a robust honors alumni association. Except for a survey extended to seventy-eight alumni who participated in our international research and service partnership between 2003-2011 with South Africa (Dean & Jendzurski, 2013) and a 2010

survey linked to a Middle States Accreditation review, we have conducted no formal assessment of our alumni particularly with requests for such a simple issue as their motivations for engaging in a sustained relationship with the university, faculty, students and/or one another.

Conclusion

While no one should ever celebrate catastrophic impact of 2020-2021, the experience challenged professionals in higher education to examine the pedagogical practices we historically utilized to champion student success and make adaptations due to the external mandates for remote learning. From this forced reflection, we discovered a previously underutilized resource in our approach to attaining student success, our alumni. The alumni of university programs and organizations offer vast value to students. Far too often sought after for hopeful financial contributions, alumni contribute to student success by illustrating and even providing career opportunities and networking, motivate greater engagement in campus communities and skill development in areas such as leadership and interpersonal sensitivities.

This past year Zoom technology enabled us to cross geographic divides and create meaningful and very affordable space for our alumni to become a visible part of our community and contributing partners in our shared quest for student success. Our survey data and student feedback demonstrate that alumni involvement can function as drivers of student success and make an impact in both the moment and in motivation for current students to sustain their programmatic engagement after matriculation.

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Anticipatory Socialization and Forms of Capital in Pre-Law Students' Intent to Pursue a Juris Doctorate

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Abstract

This study employs student survey data and statistical analysis to reveal whether demographics, forms of capital, and anticipatory socialization factors determine pre-law students' intent to pursue a law degree and their perceptions of LSAT scores as an indicator of admissibility. Descriptive statistics show that 72 percent of the respondents were concerned about financial debt and 68 percent of respondents were concerned about their chances of being admitted. Female and racial/ethnic students held negative perceptions about their LSAT scores. Regression analysis shows that six factors held associations with the respondents' intent to pursue a law degree and perceptions of LSAT scores. We discuss our findings in the context of the increased calls for diversification of legal profession and law school enrollments and concerns about a continuous reliance on LSAT scores in admission decisions.

Keywords: access; legal education; academic and social capital; diversity in legal education.

Introduction

Former assistant deputy secretary for the U.S. Department of Labor, Wilcher (2004) compares access to law schools with a road to empowerment and social uplift, citing the societal need for more lawyers of colors. Wilcher asserts, "Those seeking 'to make a difference' can benefit from having a law degree when seeking positions as counsel for congressional committees, the White House and executive branch agencies or for comparable positions in state and local governments" (p.124). However, diversity remains a national challenge for law schools (Kuris, 2020). While some evidence suggests that demographic shifts already occurred at the graduate level (Okahana, Zhou, & Gao, 2020),

law schools' enrollments and representations in the legal profession do not reflect these changes (Jaschik, 2020; LSAC, 2019; ABA, 2020).

According to the Law School Admission Council (LSAC) (2020), the total number of law school applicants increased by 25.9% in 2020, while the Caucasian/White applications are accountable for the most of that increase (LSAC, 2020). The enrollment in law schools has slightly increased in 2020 as well (ABA, 2020). Yet, the enrollment among students of color remains low, with the biggest drop in 2019 for Blacks in the fourth consecutive years (ABA, 2019; 2020). While the number of female applicants has been outgrowing the number of male applicants (54% in 2020 compared to 44% in Fall 2019), the admission rates for male applicants remain to be higher (72% in 2020 compared to 69% in Fall 2019). Moreover, only about nine percent of law students come from first-generation college student backgrounds with a parent who had a high school diploma or less, and about 35% of law students come from high-income families (i.e., the highest percentage by family income compared to all other graduate degrees) (AccessLex Institute, 2018; 2020). In general, these data trends preserve the stereotype that law education is for the affluent White men.

The purpose of our research was to gain more insights from the pre-law students into issues of access to law schools to determine kinds of student perceptions and forms of capital that predicted their intent to pursue a law degree. Two research questions guided this study:

Research Question 1: How do student perceptions and forms of social and academic capital predict students' likelihood of pursuing a law degree?
Research Question 2: How do student perceptions and forms of social and academic capital predict students' perceptions of the LSAT?

We conceptualized that certain perceptions and forms of social and academic capital had associations with the access to law schools. The access was measured by (1) the prospective students' intent to apply to and enroll in a law school and by (2) the prospective students' perceptions of the LSAT as a gatekeeper to a law school. The findings of the current study contribute to the literature about access to legal education and provide implications for law schools.

Conceptual Framework

Two theories, such as anticipatory socialization to professional education (Weidman, Twale, & Stein, 2001) and academic capital formation (ACF) (St. John, Hu, & Fisher, 2011), guided our conceptualization of the six factors that predicted the access outcomes. The anticipatory socialization to professional and/or graduate education (Weidman, Twale, & Stein, 2001) assumes that prospective students have certain predispositions making them admissible to a professional degree as well as develop certain preconceived ideas about "behavioral, attitudinal, and cognitive expectations" held for a student seeking admissions (p. 25). The ACF theory emphasizes that various forms of capital remain to be a significant determinant of student predispositions and preconceived

ideas, explaining between-group (i.e., race/ethnicity, or socioeconomic status) differences and opportunity gaps in postsecondary education. In other words, merging two theoretical orientations, we saw that "normative behaviors and acceptable emotions" in anticipation of admissibility to a law school (Weidman et al., 2001, p. 25) and various forms of capital to which some student populations had access to (St. John, 2006) would determine the prospective students' perceptions of the LSAT and their intent to apply to and enroll in a law school.

Thus, we proposed the following six factors. Within the dimension of anticipatory graduate and professional socialization, pre-law students would hold: (1) perceptions of the value of law education (i.e., to make more money, to enjoy one of the most prestigious professional occupations), (2) perceptions of purposes of law education, and (3) concerns over an anticipated lack of social and emotional support. Students' various forms of capital included (4) finances (i.e., law school debt expectations), (5) academic capital (undergraduate co-curricular involvement), and (6) social capital (undergraduate social interactions and socialization agents).

Students' Perceptions

Scholarly literature pertaining to the trends of law school enrollment and admission has a historical track of focusing solely on the issues of affirmative actions and the effects of affirmative actions on law school outcomes (i.e., academic performance, completion, or passing the bar) (Chambers, Clydesdale, Kidder, & Lempert, 2004; Garces, 2013; Johnson & Onwuachi-Willig, 2005; Sander, 2004). The literature lacks any specific studies that examine qualitatively or quantitatively other factors affecting access to law schools and legal education. Three broad factors pertaining to prospective students' perceptions may take a central position during the anticipatory stage of graduate and professional socialization. These are about the perceived value of legal education, perceived purposes and outcomes of legal education, and anticipated need for emotional and social support during the studies.

Value of Legal Education

The financial reality associated with the costs of legal education encompasses a myriad of perceptions that potential law students have, which centers on college debt and perceptions of limited employment prospects after graduation from a law school. These considerations may take a central position during the anticipatory stage of students' graduate and professional socialization. The gloomy prospect of employment after graduation is being currently cited as a prominent cause for the declining enrollment (Kassidelis, 2015; Liu, 2014; National Law Journal, 2015). Addressing *the broken economic model,* Brian (2012) summarizes reports on the decline of post-graduation employment from 76.9% in 2007 to 68.4% in 2008. Yet, according to the recent statistics by the U.S. Bureau of Labor Statistics (n.d.), the legal profession has the most positive job outlook because of the projected four percent increase in job openings for lawyers. However, prospective law students remain skeptical about potential employment after graduation and an economic value of a law degree (Florida Times-Union,

2014). A report from the U.S. Department of Education (AccessLex Institute, 2018) indicates that the increase from 17 to 48% of law school graduates who believed that the legal profession and studies were not worth the cost.

Perceived Challenges and Outcomes of Legal Education

Focusing solely on the perceived monetary value of the legal profession would be misleading in understanding what individuals expect from legal education. Henderson (2003) argues that the purpose of today's law schools is "to teach a heterogenous group of people, who come from widely different backgrounds and with widely different goals, to think like lawyers" (p. 52). Indeed, some literature supports that there is a variation of perceptions about purposes and outcomes of law education. For example, in the recent survey conducted by the Association of American Law Schools (AALS) and Gallup, undergraduate students, who were interested in pursuing a law degree, expressed their passion for an advocacy work for social change and usefulness to the society (Whitford, 2018). Individuals' interests in entering legal profession not only in the private sector but also in government services or other capacities is documented elsewhere as well (Henderson, 2003). On the other hand, perceived challenges and concerns may revolve around notions of law school selectivity and fear of failure (Soonpaa, 2003) as well as degrees of difficulties of studying and succeeding in law schools, given the perceived competitive nature of law schools (Sheehy & Horan, 2004). The student sample in Whiteford's study (2018) also reported high costs and potential debt as the greatest deterrents to enrollment in law schools, which we address as a form of capital that impacts application and enrollment in law schools in the following sections.

Anticipated Need for a Social and Emotional Support

Students' sense of belonging at the undergraduate and graduate levels is one of the well-documented aspects of student experiences and success. In general, graduate students are more prone to emotional burnout and high levels of stress (Boren, 2013; Rigg, Day, & Adler, 2013). Having access to social support networks has been reported to be a powerful force driving graduate student success (Jairam & Kahl, 2012; Pifer & Baker, 2016). Out study addressed aimed to test whether a perceived need for a social support was present among the pre-law students who anticipated their pursuit of a law degree.

Forms of Capital

Three additional factors capture the role of finances as well as forms of academic and social capital in students' likelihood to pursue a graduate and professional education.

Financial Factors

Tangential student concerns over the amount of debt and costs of attending are typically cited as the significant reasons for the declining enrollment in law schools (The National Law Journal, 2015). While the economic return of a law degree remains high (USGAO, 2009; Simkovic & McIntire, 2014), costs associated with attending law school have steadily increased (ABA, 2020). The average tuition and fees for a resident student at a public law school stood at $24,220 in 2011, which had a steady increase and reached to $32,130 in 2020 (ABA, 2020). Moreover, approximately 86% of law students revealed that they carried student debt prior to

law school enrollment (LSSE, 2014). Other studies found that debt accrued through undergraduate education negatively influenced students' decision to pursue a graduate or professional degree (Choy, 2000; Heller, 2001; Millett, 2003; Zhang, 2010). Not surprisingly, the availability of financial aid becomes a significant predictor of enrollment in a first-choice graduate or professional program (Millett, 2003).

Academic Capital

Students' educational backgrounds reflect the role of academic capital acquired through undergraduate experiences, campus engagement, and academic achievements. For example, research from the 90s shows that interdisciplinary courses and social sciences at the undergraduate level had significant positive effects on LSAT scores (Astin, 1993). The evidence from the 2000s is yet limited or underreported regarding the impact of the undergraduate coursework (Mayhew et al., 2000). Moreover, undergraduate experiences at institutions with a strong emphasis on scholarship and faculty's scholarly orientation also yielded a positive correlation with LSAT scores (Astin, 1993), but this relationship calls for researchers' attention these days. Other research reports a positive effect of participation in undergraduate research on students' decisions to pursue graduate education (Hathaway, Nagda, & Gregerman, 2002). Attendance at either an HBCU or PWI can be an additional factor explaining variability between White and racial/ethnic students in decisions to pursue a law degree (Mayhew et al., 2016). Some evidence suggests that, compared to PWIs, HBCUs may have a stronger indirect effect on career choices and aspirations for Black students (Mayhew et al., 2016). This indirect effect is attributable to more supportive educational environments at HBCUs (Watson, Terrell, Wright, & Associates, 2002).

Social Capital

Early socialization to a legal career generates cultural capital through various impacts of socializing agents and support groups on educational aspirations, expectations, and attitudes of racial and ethnic prospective students (Cheng & Stark; 2002; St. John et al., 2006). Cultural capital takes the form of various opportunities for exposure to legal careers, professional jargon, professional role models, and information about legal education and law schools.

To summarize, we hypothesized that the anticipatory socialization factors and various forms of capital had significant associations with the access outcomes of this study. How each factor contributes to the access outcomes would shed light on how to better support students to be prepared for the application, admissions, and successful transitions to law schools.

Research Methods

The data for the study come from a survey developed by the researchers based on the literature reviewed in the conceptual framework section. The survey was distributed to the full-time undergraduate students who identified as being on a pre-law track at two research universities, an emerging Hispanic Serving Institution (HSI)-main campus and Predominately White Institution (PWI)-main campus. The PWI was a large research institution in the Midwest with a student population of 23,000, with 72% of students from the White racial background.

Their pre-law tracking program was housed within the College of Arts and Sciences (total enrollment of 4,664 undergraduate students). While the college kept track of students who were interested in law degrees and had a formal advisor who oversaw these students, the institution did not have a pre-law major or minor per se. We also included students from an emerging HSI from the Southeast with a student enrollment of 64,000 students, with 51% students from the White racial background. Their pre-law track generally originated from two separate colleges: College of Sciences (total enrollment of 10,700 undergraduate students) and College of Health and Public Affairs (total enrollment of 8,550 undergraduate students). We distributed the surveys via Qualtrics by emailing the students through their advisor at the PWI and through their respective academic departments at the HSI. The overall number of undergraduate students on pre-law tracks was 500 at the PWI and 328 at the HSI. Among these students, 125 students (23 and 101 students, respectively) responded and completed the survey.

Female participants constituted 62.6 % of the sample. In terms of the racial demographics, Whites made up 57 % of the population, followed by Blacks (13%), Hispanics, non-White (11%), Native Americans (4%), and Asians (2%). The participant sample was from the diverse household income levels: students who were from the family income below $75,000 comprised more than half of the sample, including 15% representing a household making $20,000 or less; meanwhile, six percent of the students reported family income higher than $200,000. Eleven percent and 13% of the students were from the household income levels of $150,000 to $199,000 and $100,000 to $149,999, respectively. Finally, while 68% of the sample was first-generation students, 12% of the students in our sample had parents working in the legal profession.

Variables and Analysis

The variables of interest in this study were measures of anticipatory socialization (i.e., perceived value of legal education, perceived purposes and outcomes of legal education, and anticipated need for emotional and social support during the studies) and capitals (i.e., role of finances, academic capital, and social capital). The six variables were created based on the literature reviewed in the conceptual framework section. *Social capital* was defined as one's undergraduate social interactions and agents, measured with 6 items (e.g., I know what to expect in law school from my academic adviser/s in my undergraduate education); *Academic capital* captures undergraduate co-curricular involvement using 6 items (e.g., During my undergraduate years, I was involved in student leadership organization/s on campus); One's *perceived purposes and outcomes of legal education* was measured using 7 items including "I want to pursue a law degree to make a difference in addressing the challenges in today's society." *Financial capital* (2 items) measured how one expects debt that would accrue from graduating from a law school. The *anticipated need for emotional and social support* is a factor measured by 4 items regarding where and how students find their support when it comes to their law education. Finally, the *perceived value of legal education* (5 items) asked students what outcomes they envision from a law degree (See Table 1).

Because multiple items were employed to capture the six underlying variables, called factors, we employed factor analysis which extracts maximum common variance from all items and puts them into a common score. As each factor should be associated with a specified subset of measured items based on the pre-established theory, we conducted a confirmatory factor analysis (Kim & Mueller, 1978; Bryant & Yarnold, 1995)[1]. We obtained factor scores for the six factors as an index of all items and included them as independent variables in the main analysis. For each factor, we calculated Cronbach's alpha in order to check the reliability. All factors had a coefficient of .60 or higher, suggesting that there is acceptable or relatively high internal consistency.

Table 1.

Definition and Items of Anticipatory Socialization and Capital Measures

Measures	Definition & Items	Cronbach α
Social Capital	Undergraduate social interactions and agents - I have developed a strong social peer support during my undergraduate years. - My undergraduate coursework prepared me well for a law school. - I know what to expect in law school from my undergraduate peers. - I know what to expect in law school from my academic adviser/s in my undergraduate education. - I know what to expect in law school from role models among law professionals. - During my undergraduate years, I had a faculty adviser who was scholarly productive (i.e., published peer-reviewed articles, books, book chapters, other manuscripts, conferences presentations, posters).	.748
Academic Capital	Undergraduate co-curricular involvement - During my undergraduate years, I presented at scholarly conferences and/or co-authored a publication with a faculty - During my undergraduate years, I was involved in student leadership organization/s on campus (i.e., Student Governance Organization, etc.) - During my undergraduate years, I was a member of A Greek Letter Organization - During my undergraduate years, I participated in service-learning or other civic engagement activities - During my undergraduate years, I was involved in other student organization/s	.662

	- During my undergraduate years, I was involved in student activism on campus	
Perceived purposes and Outcomes of Legal Education	- I believe that legal education will be difficult and challenging - I want to pursue a law degree to make a difference in addressing the challenges in today's society - I want to pursue a law degree to enter government service - During my undergraduate years, I had an assigned pre-law adviser - When applying to a law school, the amount of debt that I am accruing was/is my concern - When applying to a law school, uncertainty that I will be admitted was/is my concern - When applying to a law school, uncertainty about employment prospects after graduation was/is my concern	.628
Financial	Law School Debt Expectations - I expect to be at least $100,000 in debt after graduating from law school - I expect to be in debt after law school graduation	.679
Anticipated need for emotional and social support	- I know what to expect from law school from social media - I know what to expect from law school from pop cultural references - Lack of sense of belonging and integration to a law school was my concern - Not having enough social and emotional support from significant others was my concern	.683
Perceived value of legal education	- I feel like I have adequate funding to attend law school - I want to pursue law degree to make more money that I have previously had - I want to pursue law degree because it is one of the prestigious professional occupations - I want to pursue law degree to go into private practice - Persisting to law school graduation was my concern	.602

Our dependent variables of the access outcomes were twofold: students' intent to pursue a law degree and their perceptions of LSAT score. For the former, we measured: i. whether or not a student intends to apply to a law school, and ii. if they will enroll conditionally on being admitted to a law school. For the latter, we measure i. whether or not students were concerned about taking the LSAT, ii. whether or not they were concerned about their LSAT scores not being high, iii. whether or not students saw the LSAT to properly represent one's ability, and iv. what score they perceived to be admissible to law schools, particularly at the margin of 140 and 150 or higher, respectively. All outcome variables are measured as binary (1=yes, 0=no). See Table I for the definition and descriptive statistics of the variables.

The purpose of the study was to test how students' perceptions and forms of social and academic capital predict students' likelihood of pursuing a law degree as well as their perceptions of the LSAT. Yet, it was important to control for observable characteristics of the

students such as demographic and academic backgrounds (e.g., gender, family income and parental occupations, first-generation status, undergraduate major) that can influence both social and academic capital as well as one's intentions to pursue law degrees, in order to infer the relationships more accurately between the capitals and students' intent to pursue a law degree and their perceptions of LSAT scores. Therefore, we employed regression model to estimate the relationship between dependent variables and the independent variables consisted of six variables. Because the dependent variables are in binary (dichotomous) format, we employed a logistic regression model in this structure:

$$Pr(Y_i = 1) = \frac{exp\ (\alpha_i + \beta_1 F1_i + \beta_2 F2_i + \beta_3 F3_i + \beta_4 F4_i + \beta_5 F5_i + \beta_6 F6_i + \beta_7 X_i + \varepsilon)}{1 + exp\ (\alpha_i + \beta_1 F1_i + \beta_2 F2_i + \beta_3 F3_i + \beta_4 F4_i + \beta_5 F5_i + \beta_6 F6_i + \beta_7 X_i + \varepsilon)}$$

where β_1 through β_6 captures the association between each dimension of anticipatory socialization and capital and the probability of selecting the outcome, Y_i equals to 1, controlling for the vector of individual characteristics X_i. The coefficients are reported in odd ratios, which represent the probability of one responding "yes" with the variables that capture his/her intent to pursue a law degree and perceptions of LSAT scores (Long & Freese, 2001).

Limitations

The data came from only two institutions and the sample size was quite small. While we acknowledge that these points limit our ability to generalize the findings, we argue that the purpose of this study was to explore and empirically test the relationships between the capitals and students' perceptions of access to law schools. Further replications are warranted.

Findings

The majority of the pre-law students indicated that they would apply to a law school (N=98, 79.67%) and attend a law school, if admitted (N=107, 86.99%). Nearly all of the participants (82%) had not taken the LSAT at the time of the survey distribution. Additionally, 58.4% of the sample responded that they thought that the LSAT was not a good proxy for one's ability to study in a law school. About 75% of the students were concerned about taking the LSAT, and nearly half of the students were concerned about their LSAT scores (Table 2).

Table 2.

Descriptive Statistics

Dependent Variables	N (%)	Definition
Intention to apply	98 (79.67%)	One is very likely to apply to a law school (vs. considering, neutral, indecisive, and not likely)
Intention to attend	107 (86.99%)	If admitted, one is very likely to enroll in a law degree program
Concerns for taking LSAT	76 (75.25%)	One strongly agrees that he/she is concerned about taking the LSAT
Concerns for LSAT scores	50 (49.50%)	One strongly agrees that he/she feels unprepared for achieving a good score on the LSAT

LSAT scores not representing ability	59 (58.42%)	One strongly agrees that he/she believes LSAT does not represent adequately his/her academic potential to pursue a law degree
LSAT scores: 140-50	55 (55%)	One strongly agrees that achieving a score of 140-150 on the LSAT to be admissible to a law school of his/her choice
LSAT scores: 150 or higher	84 (83.17%)	One strongly agrees that achieving a score of 150 or higher on the LSAT to be admissible to a law school of his/her choice
Covariates		
Female	77 (62.6%)	One's indication of sex
household income: $ 75,000 or higher	52 (42.3%)	Self-reported household income level
Minority	42 (33.6%)	One's reported race is Black of Hispanic non-white
first-generation	85 (68%)	Highest level of education of either parent is associate degree or lower
parents in legal professions	15 (12%)	One of the parents is a legal professional
UG major: liberal arts/humanities	23 (18.4%)	Undergraduate major is in liberal arts or humanities (vs. other majors)

While we employed the factor scores as an independent variable of our analysis, it is worth noting several descriptive findings within the items that constructed each factor. First, we found that over 55% of the students agreed that undergraduate education provided them with a strong social peer support system and coursework for the law school preparation. During the undergraduate study, 71.2% of students participated in some student organizations, about 24% participated in student activism, and 43.9% participated in service-learning or civic engagement. Students who participated in any scholarly conferences or publication during undergraduate were at 12.3%. About 40% of the students were motivated to pursue a law degree to make an impact in the society and work in government service.

The majority of students (87%) perceived law education to be difficult and challenging and 72% of the respondents have some degree of concern about finances/debt, while 68% and 43% of the students reported that admissions and uncertainty about employment prospects after graduation challenged their decisions to pursue a law degree. Consistent with the national trends, financial concern was significant among the students. Specifically, 80% of students strongly agreed with the statement that "I will be in debt after law education, with an expected debt amount minimum $100,000" and 68% of students expressed concerns for persisting in law school. Only 8.94% and 12.20% of students strongly agreed or agreed with the statement that they had an adequate funding to attend law school. For these students, monetary gains and job prestige were not necessarily the motivation for pursuing a legal career.

Anticipatory Socialization, Capitals, and Intent

Columns A and B in Table 3 show the association between the six factors of anticipatory socialization and capitals and students' intent to apply to and attend a law school, respectively. We found that the perceived purposes and outcomes of law education to be positively correlated with the intent to apply to a law school: the odds of a student intending to apply to a law school was about 2.66 times higher for a one standard deviation increase in the factor. Students who anticipated a higher level of need for emotional and social support during the studies had lower odds of considering law school application by 12.2% (Odd Ratio=0.38). However, when students were provided with the condition that they were accepted to a law school, there were no differences based on the socialization and capitals in terms of the intent to matriculate and attend the school. No differences were found in the intent among the students with different demographic and academic backgrounds in our sample.

Anticipatory Socialization, Capitals, and Perceptions of the LSAT

The logistic regression results suggested that the six factors were significant predictors of students' concerns and perceptions regarding the LSAT (Table 3). In particular, students who reported a higher level of "perceived purposes and outcomes of legal education" and "perceived value of legal education" were more likely to express concern about taking the LSAT and earning adequate scores. These students also held negative perceptions about the LSAT as a way to evaluate one's ability to study law. In particular, a one standard deviation increase in these factors was associated with an increase in the odds of having concerns for taking the LSAT by 4.34 and 12.11, respectively (Column C). Students who had a higher score on the perceived purposes and outcomes of legal education were 2.17 times more likely to be concerned about their LSAT scores (Column D) and 2.87 times more likely to consider that LSAT scores were not adequate to capture one's ability. One's perceived value of legal education was also positively related to the negative perception of the LSAT to represent one's ability (Odd Ratios=2.32) (Column E). Moreover, academic and financial capitals were also significant predictors for the higher odds of concerning for taking the LSAT by 3.53 and 3.03 (Column C).

Table 3.
Anticipatory Socialization, Capitals, and Intentions for Law School Access

	(A)	(B)	(C)	(D)	(E)	(F)	(G)
	Intention to apply	Intention to attend	Concerns for taking LSAT	Concerns for LSAT scores	LSAT scores not representing ability	LSAT scores: 140-50	LSAT scores: 150 or higher
Social Capital	1.572	0.893	0.707	0.642*	0.949	2.410***	0.923
	(0.513)	(0.325)	(0.281)	(0.171)	(0.283)	(0.806)	(0.347)
Academic Capital	1.324	0.831	3.533**	1.207	1.045	0.934	1.918
	(0.466)	(0.307)	(2.163)	(0.373)	(0.346)	(0.296)	(0.938)
Perceived purposes and outcomes of legal education	2.661***	1.590	4.335**	2.174**	2.871***	2.171**	1.593
	(0.969)	(0.611)	(2.546)	(0.775)	(1.149)	(0.859)	(0.717)
Financial Capital	0.788	0.831	3.033***	1.117	0.616	0.673	1.466
	(0.276)	(0.320)	(1.295)	(0.351)	(0.215)	(0.246)	(0.597)
Anticipated need for emotional and social support	0.380**	0.556	0.979	1.119	0.643	1.874**	1.114
	(0.147)	(0.205)	(0.435)	(0.312)	(0.204)	(0.585)	(0.444)
Perceived value of legal education	1.663	1.022	12.114***	1.170	2.315**	0.801	3.156**
	(0.668)	(0.481)	(9.151)	(0.400)	(0.987)	(0.291)	(1.662)
Female	0.548	1.202	0.879	0.564	2.939*	1.024	1.181
	(0.344)	(0.796)	(0.619)	(0.300)	(1.631)	(0.558)	(0.792)
Household income: $ 75,000 or higher	0.412	0.317	1.038	1.271	1.642	0.730	0.892
	(0.262)	(0.232)	(0.800)	(0.672)	(0.916)	(0.406)	(0.619)
Minority	0.796	0.309	0.842	2.173	3.384**	1.349	0.834
	(0.504)	(0.225)	(0.593)	(1.116)	(1.902)	(0.724)	(0.547)
UG major: Liberal arts/humanities	2.054	2.567	0.173**	1.260	0.951	1.167	1.149
	(1.565)	(2.316)	(0.155)	(0.788)	(0.668)	(0.814)	(1.079)
First-generation	1.611	3.460*	6.189**	0.832	2.620*	0.424	0.625
	(0.980)	(2.250)	(4.845)	(0.408)	(1.419)	(0.223)	(0.430)
Parents in legal professions	0.263*	0.593	0.106**	1.153	0.625	7.344*	0.916
	(0.213)	(0.566)	(0.111)	(0.959)	(0.554)	(8.524)	(1.117)
N	115	115	96	96	96	95	96

*Notes . Odd ratios reported; Standard errors in parentheses. *p<0.05, **p<0.01, ***p<0.001*

Students' anticipatory socialization and capitals were related to the perceptions of the admissible scores. When it comes to the specific threshold scores, students who reported higher levels of social capital, perceived purposes and outcomes of legal education, as well as an anticipated need for emotional and social support were 1.87 to 2.41 times more likely to think that the LSAT of 140-150 was sufficient for admissions. Students who had a higher level of the perceived value of legal education were about 3.16 times more likely to respond that 150 or higher scores were required for the successful admission (Columns F and G).

Finally, we found several individual background characteristics to be correlated with students' concerns and perceptions of the LSAT. Students who were in liberal arts majors and had parents who were in legal professions were less likely to be concerned about the LSAT, whereas students who were first-generation were 6.19 times more likely to worry about the LSAT (Column C). Female and racial/ethnic students were about 3 times more likely to have a higher negative perspective towards the LSAT to represent one's ability, compared to their male and non-minority peers, respectively (Column E).

Discussions and Implications

We argued that anticipatory socialization and social and academic capital played important roles in the access outcomes in this study. The findings suggested that students ascribing higher ratings to the purposes and outcomes of legal education had stronger intentions to apply to a law school but were more concerned about taking the LSAT and interpreting their scores. Moreover, students who placed a higher value on legal education also demonstrated higher expectations for the LSAT requirements while casting more doubts about the test itself.

Future research is needed to examine how specific practices of socialization would impact students in terms of how they gather and process information to prepare for law school applications and test-taking. Pre-law programs and law schools might consider providing better guidance for students in explaining role of the LSAT, eliminating some concerns students might have, and increasing students' efficacy and intent to apply.

Another important finding is about the role of academic, financial, and social capitals on pre-law students' access to law school. In particular, we found that students who had a higher level of social capital and relied on their social peers to set expectations for further education tended to believe that the 'average level' (140-150) (e.g., Kaplan, n.d.) was enough for receiving an admission from a law school. This suggests the importance of social capital in terms of shaping one's expectations and strategies for law school applications and admissions accordingly. Interestingly, students who possessed a higher level of academic capital by participating in various undergraduate co-curricular activities tended to worry more about the LSAT. While this is somewhat contradictory to common expectations and discussions of self-selection of academically engaged students, research is needed to examine student engagement in co-curricular activities that are related to legal issues and role of these experiences in applicants' considerations to pursue a law degree. Finally, for students who were concerned about the debt after a law school, taking the LSAT was a significant concern despite the fact that their intent to apply and attend was not different from those who demonstrated less financial concerns. This may be due to the perceived costs for preparing for the test and potential impact of LSAT scores on financial aid in the form of scholarships. Schools might consider financial support for exams or revisit the role of the LSAT in their selections of students, particularly those who might lack financial capital.

Our analyses also highlighted interactions with the different demographic backgrounds. We found that female and racial/ethnic students had a negative perception of the LSAT as an indicator of one's ability to study in a law school, compared to their male and White counterparts. The LSAT remains the preeminent tool in determining admission, but it has not been without criticism. Scholars (Haddon & Post, 2008; Nussbaumer, 2006) argue that law schools over-rely on the LSAT to make admission decisions based on their concern for prestige, ranking, or institutional practice, and as a result, these approaches detrimentally impact diversity. On behalf of the Law School Admissions Council (LSAC), Pashley, Thornton, and Duffy (2005) admitted, "the Council is concerned that legal education may be placing too much emphasis on the LSAT, and by doing so maybe overlooking important additional admission criteria that could aid legal education in achieving its diversity goals" (p. 233). Law schools should consider whether their admissions, outreach, and communication strategies adequately reflect access to justice and student populations they desire to enroll (Anderson, 2009).

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