Meeting People Where They Are:

Personalized Learning to Foster Inclusion & Equity

By

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Executive Summary

The Institute of Quantitative Psychology (IQP) is a center for applied research at the University of the Atlantic that supports leaders to develop the characteristics that are correlated with long-term success.[1] Faculty affiliated with IQP conduct social science research to determine how to assess and develop the personality traits that contribute to successful individual and organizational outcomes. Then, the IQP team translates this research into three core products: (1) assessments that diagnose the extent to which participants embody those personality traits; (2) learning experiences that strengthen the personality traits; and (3) a digital platform that enables participants to access their assessment results, visualize and analyze the data, and create a learning plan.

Currently, the IQP team is not actively developing these products with equity, diversity, and inclusion (EDI) in mind. That is, they are not intentionally thinking about how their products are experienced by participants with diverse social identities and lived experiences, and how those identities mediate the impact of their efforts. Therefore, I investigated two sets of research questions (RQs). First, to what extent do learners experience belonging and authenticity—the hallmarks of inclusion—in IQP learning experiences? Second, to what extent do IQP learning experiences provide participants with the access, resources, and opportunities necessary to strengthen their personality traits and become more successful leaders? In both cases, I sought to understand how participants' experiences varied by individual social identities and combinations of social identities.

[1] I employ pseudonyms to protect the confidentiality of students and institutions. I have changed some identifying details that are not relevant to the project design, findings, or recommendations.

Since my RQs examined variance according to social identity, I employed critical race theory (CRT) as a conceptual framework to guide how I collected data, analyzed it, and derived recommendations. Critical race theory examines how racism is embedded in social systems that disadvantage people of color and privilege White people. Moreover, it provides a framework for analyzing systemic oppression according to other dimensions of social identity (e.g., gender, ability, sexual orientation, etc.).

I surveyed a sample of 121 University of the Atlantic students and alumni about their experience with IQP to illuminate trends at scale. I then conducted nine deep-dive interviews to better understand the qualitative story that undergirded the quantitative data. With respect to RQ1 (inclusion), I found that IQP participants experienced a high degree of belonging and authenticity across social identities. Although the IQP team has paid little explicit attention to EDI in the design of their learning activities, those activities inherently centered learners' individual identities and needs, and therefore resulted in participants feeling seen and valued for who they are.

Although inclusion was overall high, women experienced significantly less inclusion than men due to lack of representation in the curriculum, pressure to code-switch into predominately male leadership archetypes, and negative interactions with male peers. By contrast, study participation rates and quantitative survey responses provided evidence that Latinx people had a more positive experience than people who did not identify as Latinx. I did not uncover qualitative evidence indicating why this is the case, and believe further research is warranted to learn from this bright spot.

With respect to RQ2 (equity), I found that IQP learning experiences provided all participants with the access to resources they need to grow their leadership. However, some

participants worried that the assessments and learning experiences were culturally biased, as traits people consider to be *normal* or *good* are relative to the culture in which they are situated. Moreover, most learners have not yet applied IQP insights outside of classroom learning experiences. They viewed the program as an optional resource competing for their time, rather than an essential lever for achieving their most important goals.

Based on these findings, I recommend that IQP enhance inclusion in two ways. First, the team should revise their curriculum to address gender inequity by increasing the representation of women and train faculty to identify and address the slights that women experience from male colleagues in the classroom. Second, the team should further investigate the experience of Latinx people to uncover why they are having a more positive experience and seek to replicate those conditions for learners with other social identities.

Furthermore, I recommend that the IQP team alleviate students' concerns about cultural bias by clearly, explicitly, and proactively sharing when the research is valid across different cultures and when it is not. Finally, I recommend that they reposition IQP as an integral component of the MBA experience by introducing it earlier, explicitly teaching students how to apply IQP learning experiences to achieve their most important goals in the MBA program, and creating more opportunities for executive MBA students to apply IQP insights in real time at their workplace.

Introduction

Organizational Context

The Institute of Quantitative Psychology (IQP) is a center for applied research within the University of the Atlantic, jointly housed across the psychology and mathematics departments. Faculty apply psychological and quantitative methods to measure, model, and analyze psychological processes, with the aim of supporting both individuals and organizations to make better decisions. They have two primary strategies towards these ends. First, IQP facilitates communities of practice, which convene statisticians, computer scientists, psychometricians, human resources professionals, and other academics and practitioners to learn with and from each other. Second, IQP establishes research partnerships with individual organizations, designing products and experiments to understand how employees' personality traits, organizational culture, and career pathways drive performance.

Many organizations, including IQP, employ personality assessments as a tool to understand employees' personality traits. However, the field of commercial personality assessment has little grounding in scientific research and there is scant empirical evidence for its impact.[2] Therefore, in 2015, IQP launched an initiative to construct new and more effective products for developing individuals' personality traits in the workplace. Through this work, IQP seeks to create a research-driven approach to identifying, measuring, and strengthening the characteristics that are correlated with long-term success.

[2] Here I distinguish between peer-reviewed instruments for measuring personality traits in clinical psychology, such as the Big Five personality assessment, and commercial tools that purport to provide business leaders with insight into employees' needs, preferences, and capabilities. The latter tend to be based on their creators' subjective beliefs about personality rather than any empirical research (Chen, 2018; Stein & Swan, 2019). The Myers-Briggs Personality Inventory in particular is administered more than two million times annually. However, there is no theoretical basis for its construction and no practical evidence that one's Meyers-Briggs type indicator predicts individual behavior (Gardner & Martinko, 1996; Pittenger, 1993). For more discussion of the science of personality assessment, see the Literature Review.

In order to pursue this vision, faculty affiliated with IQP conduct social science research to determine how to assess and develop the personality traits that contribute to successful individual and organizational outcomes. Based on prior research in psychology, they currently focus their efforts on the personality traits of empathy, openness, grit, and achievement motivation. The IQP team then translates this research into three core products. First, faculty develop assessments that diagnose the extent to which users embody empathy, openness, grit, and achievement motivation. Second, staff create learning experiences—such as exercises, readings, podcasts, and videos—that strengthen those personality traits. Third, developers provide users with a digital platform that enables them to access their assessment results, visualize and analyze the data, and pursue learning experiences aligned to their specific constellation of strengths and areas for growth.

The IQP team theorizes that character is malleable and built over the course of months and years. This reflects the research consensus that personality traits—while not fixed—are relatively stable and tend to require long periods of time to change (Bleidorn et al., 2019).[3] Therefore, the IQP researchers intend for users to participate in cycles of assessment, learning, and analysis over the course of multiple years. Users track how their personality traits develop across these cycles, adjusting their learning plans as they go. This sustained engagement in turn generates new data to inform the IQP researchers' future work. For example, if the researchers were to find a correlation between users participating in learning experiences that develop empathy and their career advancement, that insight would enable the researchers to design future experiments to investigate the direction and strength of the relationship, search for mediating and

[3] Exceptions exist. For example, Peterson and Seligman (2003) found that among a sample of United States participants, prosocial personality traits—such as gratitude, hope, and kindness—increased in the two months following the September 11 terrorist attacks and remained elevated ten months later.

moderating variables, and then adjust the learning experiences accordingly. In this way, the team seeks to create a virtuous cycle where the more that users participate in IQP, the more effective IQP becomes for them and others.

Initial Testing

IQP aspires to create products that are relevant for and benefit all organizational leaders, ranging from current executives (e.g., the CEO of a large corporation) to emerging leaders (i.e., high potential early- or mid-career employees who seek to increase the scope and impact of their work), to aspiring leaders (i.e., people who seek the resources and credentials to step into their first leadership role). This entails a significant commitment to equity, diversity, and inclusion (EDI). The set of current, emerging, and aspiring leaders in our country encompasses people from every race, ethnicity, gender, and economic background, possessing a wide variety of career interests and political beliefs. In order to serve their needs, IQP must design products that feel welcoming to and support all leaders to succeed, regardless of social difference. Moreover, people from many backgrounds have been historically excluded from leadership positions on the basis of race, gender, religion, and other social identities. IQP has the potential to contribute to a more equitable society—where people from all backgrounds have equal opportunity to participate in leadership—by creating products that support people from historically marginalized backgrounds to grow.

At present, IQP is in closed beta. For the past two years, the team has exclusively tested their core products with University of the Atlantic MBA students. This has enabled them to access hundreds of aspirational and emerging business leaders, and to begin to follow them longitudinally. Participating students engage in an initial assessment/learning cycle in their first year of study. Then, they retake the assessment in their second year, pursuing further learning

based on the new results. After graduation, the students will have the opportunity to continue engaging with IQP products as alumni.

However, the University of the Atlantic MBA sample is not representative of the overall population of organizational leaders. The median age of employed people in the United States is 42.5 years. Among managers, it is 46.9 years. With an average of five years of work experience and a median GMAT score of 730 (96th percentile), University of the Atlantic MBA students are younger and more successful at traditional measures of academic achievement than the average leader in the workforce. Moreover, significantly more University of the Atlantic students identify as Asian American (26%) and significantly fewer students identify as White (38%), Black (9%), or Latinx (8%) than the American labor force overall (6%, 72%, 13%, and 17%, respectively).[4] This threatens the external validity of IQP's results, defined as the extent to which outcomes can be applied beyond the sample. That is, products which are designed to meet the needs of University of the Atlantic MBA students will not necessarily generalize to the broader population of leaders in business, government, or other sectors. Therefore, the next step for IQP is to expand their sample and begin testing their assessments, learning experiences, and platform with diverse audiences outside of students at the University of the Atlantic school of business. For example, by offering IQP in executive education courses and establishing partnerships with non-profit and for-profit leadership development organizations, the team can test their product with people who are underrepresented in the current sample of University of the Atlantic MBA students.

[4] University of the Atlantic data are for the class of 2022. United States labor force data are from the Bureau of Labor Statistics 2019 annual report (Bureau of Labor Statistics, 2020) and 2020 population survey (Bureau of Labor Statistics, 2021), the most recent reports for which summative data are available.

Problem of Practice

While IQP aims to create products that are valuable for all organizational leaders, the researchers are not yet actively developing assessments, learning experiences, or the platform with EDI in mind. That is, the team is not intentionally thinking about how users' diverse social identities and lived experiences will mediate whether the assessments, learning experiences, and platform feel welcoming and enable them to succeed and grow. Among these three core products, my capstone specifically focuses on the learning experiences because they are the locus of real-world impact. The IQP researchers are driven by the belief that promoting empathy, openness, grit, and achievement motivation will support all organizational leaders to achieve long-term success. However, even if IQP creates assessments that accurately measure these characteristics and administers them in a way that is accurate and reliable for people of all backgrounds, that will not matter if users experience the learning resources as alienating or ineffective.

Indeed, prior to the start of this capstone project, IQP received early feedback from focus groups that some University of the Atlantic MBA students did not see themselves in the learning resources. They reported that learning experiences felt vague and overly general, and therefore questioned whether the learning would be effective for them. At the time I embarked upon this research, the team had not yet analyzed the data to determine the extent to which these sentiments—which expressed concerns about inclusion and equity—were correlated with historically marginalized social identities. This created an opportunity for me to analyze the feedback to develop an initial map of when the learning experiences were not perceived as inclusive and equitable. I was then able to use that understanding to guide my review of the

academic literature, design a research project to gather further data, and ultimately create recommendations for IQP to better design and deliver its learning experiences with EDI in mind.

It is particularly important to begin this work now, while IQP is still nascent. Within the next 1-2 years, IQP will begin to scale, expanding from its current target audience (University of the Atlantic MBA students) to include aspiring, emerging, and executive leaders at other organizations across the country. IQP must establish a strong foundation of EDI practices now, in order to ensure that as they expand their reach and the sample becomes more diverse, they are benefitting—rather than harming—the leaders whom they seek to serve.

Literature Review

IQP seeks to create learning experiences that strengthen personality traits which have been shown to predict successful individual and organizational outcomes, starting with empathy (Kellett, Humphry, & Sleeth, 2002), openness (Noftle & Robins, 2007), grit (Eskreis-Winkler et al., 2014), and achievement motivation (Collins, Hanges, & Locke, 2004). While the IQP research team believes that strengthening these personality traits will support leaders of all backgrounds to succeed—and seeks to market their product to a diverse audience—they have not intentionally designed their learning experiences to feel inclusive to and produce equitable outcomes for people with historically marginalized identities. These oversights have the potential to prevent IQP from achieving their aspiration to successfully meet the needs of diverse audiences and contribute to a society where people from all backgrounds have equal opportunity to participate in leadership.

In order to support the IQP team to create inclusive and equitable learning experiences, I will begin my literature review by examining the extent to which it is possible for learning experiences to alter personality traits. Then, I will review what criteria make for effective

learning experiences in general. This will enable me to examine how white supremacy, patriarchy, and other forms of systemic oppression may lead women, people of color, and other marginalized groups to experience otherwise well-constructed learning experiences as alienating, inaccessible, or ineffective. Finally, I will conclude by reviewing methods to produce inclusive and equitable learning experiences which support people with historically marginalized identities to achieve equally strong outcomes as their more privileged peers.

Can Personality Traits Change?

Personality traits are the thoughts and feelings that guide behavior and distinguish people from one another (Allport, 1961). There is a large body of research demonstrating that personality traits change naturally as people mature, from childhood to adolescence (Soto & Tackett, 2015), young adulthood (Neyer & Asendorph, 2001), middle-age (Hill, Turiano, Mroczek, & Roberts, 2012), and old-age (Mõttus, Johnson, & Deary, 2012). Personality traits also shift as people move into new phases of social life, such as becoming parents; intentionally pursue changes in social role, such as joining the military; or experience atypical life events, such as traumatic accidents (Borghans, Duckworth, Heckman, & ter Weel, 2008).

However, the mere fact that personality traits can change through the course of life does not necessarily imply that personality traits will change in response to intervention. In order to determine whether this is the case, I look to Roberts et al. (2017), who conducted an exhaustive literature review of whether and how experimental interventions change personality traits. In their meta-analysis of more than 200 experimental interventions, Roberts et al. found that clinical interventions lead to significant and long-lasting changes in personality traits. This holds true across all types of clinical intervention (e.g., cognitive-behavioral therapy, supportive therapy,

pharmacological treatment, etc.) and persists in longitudinal follow-ups of participants after interventions cease (Roberts et al., 2017).

Outside the field of clinical psychology, there is evidence that learning interventions can be used to change personality traits. Much of this research comes from grit, which is defined as sustained perseverance and passion towards long-term goals (Duckworth, Peterson, Matthews, & Kelly, 2007). During the course of my literature review, I did not find any studies that examined how educational interventions enhance grit (or any other personality trait) among corporate leaders. However, educational interventions have been used to increase grit in audiences as diverse as elementary school students (Alan et al., 2019), professional soccer players (Rhodes et al., 2018), and resident physicians (Saddawi-Konefka et al., 2017). Findings from these studies suggest that learning experiences may be employed to increase grit across a wide variety of audiences. Moreover, IQP has created learning experiences that mirror many of the methodologies employed by these studies, such as changes to pedagogy and curriculum (Alan et al., 2019), positive visualization and intention-setting (Rhodes et al., 2018), and setting goals and planning how to overcome obstacles to achieve those goals (Saddawi-Konefka et al., 2017). This is significant because it provides empirical support for the effectiveness of IQP's methods.

There is also evidence that learning experiences are effective at changing other personality traits outside of grit. For example, learning the pomodoro technique—a method for breaking tasks into regular intervals of work and rest—has been shown to increase self-regulation and decrease procrastination among graduate students (Almalki et al., 2020) and teams of computer programmers (Wang et al., 2010). Likewise, experiments to prime people with prosocial cues have been shown to increase generosity in charitable giving (Andersson et al., 2017). More generally, Hudson and Fraley (2015) found that people who set goals to increase

any Big Five personality trait experienced increases in their self-reports of that trait and trait-aligned behavior over the subsequent 16 weeks.

In summary, research in clinical psychology provides robust evidence that personality traits can be changed through clinical treatment. While therapy is fundamentally different in nature from IQP's self-paced readings, podcasts, and writing exercises, the literature in clinical psychology clearly demonstrates that personality traits can change as the result of intervention. Moreover, research in social psychology, business, and economics demonstrates being exposed to information or learning new skills can change personality and subsequent behavior. While this research is newer and less established than clinical psychology, the techniques are similar to the IQP learning experiences. Collectively, the two strands of research provide empirical evidence that the type of learning experiences IQP offers can alter personality traits. Of course, the effectiveness of any given learning experience depends on the quality of its design and execution. With this in mind, I will turn my attention to the literature on what conditions lead to personality-changing experiences.

How Can Learning Experiences Change Personality?

Bleidorn et al. (2019) review recent theoretical articles and empirical studies that seek to establish a theory of action for how interventions drive change to personality traits. They find consensus among the literature that personality change is a two-step, bottoms-up process (Allemand & Flückiger, 2017; Geukes, van Zalk, & Back, 2018; Hennecke, Bleidorn, Denissen, & Wood, 2014; Hopwood, 2018; Roberts et al., 2017; Roberts, Hill, & Davis, 2017; Wrzus & Roberts, 2017). First, successful interventions lead people to adopt momentary changes to their personality state, defined as the particular actions which manifest a personality trait at any given moment. Imagine, for example, an aspiring leader who is overall not very open to the ideas of

others. They tend to close their ears to feedback, preferring instead to trust their own instincts. That is their personality trait. However, there are likely instances in which they are naturally more receptive to feedback. Perhaps this person is open to instruction when learning from an expert whom they respect in a field where they are a novice. At those particular moments, they embody a more open personality state. If they were seeking to become a more open person overall, then IQP ought to provide them with experiences that cause them to exhibit open personality states more frequently, pulling them out of their regular—less open—routine.

Second, while an individual intervention may cause a fleeting state change, repeated interventions over time cause people to form new habits, which eventually crystallize into enduring changes to their personality trait (Bleidorn et al., 2019). Keeping with the same example, the difficult-to-coach corporate leader might establish a cue to remind themselves to accept and implement feedback. Over time, practicing this behavior might cause it to begin to feel natural, such that they habitually accept coaching with greater openness even without explicit prompting. Eventually, their self-concept may shift, such that they begin to see and describe themselves as a person who is open to others' ideas overall.

This view of how interventions drive personality change is consistent with research from cognitive psychology about how people develop new capabilities overall. Hundreds of studies have found that behavioral change is enhanced when learning events are distributed over time, rather than presented in short succession or one-off. Indeed, this is one of the best-documented phenomena in learning science; it holds true for young children to adults and across many types of behavior, such as memory tasks, reading comprehension, mathematics problem-solving, surgical skills, etc. (Ausubel and Youssef, 1965; Cepeda et al., 2006; Hintzman, 1974; Moulton et al., 2006; Rohrer & Taylor, 2006; Vlach, Sandhofer, & Kornell, 2008). Therefore, it is not

surprising that interventions to change personality traits are consistent with the broader principle that spaced exposure results in enduring change, which is robust across many contexts.

The preceding establishes a framework for understanding how learning interventions drive personality trait change. However, not all people experience learning activities in the same way, and otherwise well-designed learning activities will not be effective if they are experienced as alienating by their audience. Therefore, I will next review the literature on how to create learning experiences that feel welcoming to all audiences.

Inclusive Learning

Inclusion is the degree to which people feel welcomed in a group, based upon experiencing belonging and authenticity (Jansen et al., 2014). In an inclusive group or experience, people of all social identities feel valued as members of a group (*belonging*) and allowed or encouraged to be true to themselves (*authenticity*). By contrast, people might feel valued only because they pretend to be someone who they are not (high belonging, low authenticity) or they might act true to themselves but be rejected for it (high authenticity, low belonging). During the course of my literature review, I did not encounter any research on inclusion in character development or executive leadership, specifically. As I noted previously,[5] I also did not encounter any research on educational interventions to develop character among executive leaders. I hypothesize that both of these non-findings stem from the cross-disciplinary and therefore niche nature of my capstone topic, as I am seeking to understand the EDI characteristics of educational strategies to develop psychological traits among business leaders. In order to develop a perspective on inclusion as it pertains to character-building and organizational outcomes, I reviewed the literature on inclusion in social psychology,

[5] In the *Can Personality Traits Change?* sub-section of the Literature Review.

organizational management, K-16 education, and economics of education. The literature in the former two fields explores how to create inclusive environments for adults who are pursuing shared outcomes in a work context, which is IQP's target audience. The literature in the latter two fields examines how to create inclusive learning experiences, which is IQP's method of delivery. Synthesizing across four disciplines, I find that inclusion hinges upon three key factors: organizational demographics, fair treatment, and positive representation. I explore each in turn.

Organizational Demography

Organizational demography is defined as the composition and distribution of social identities among the workforce (e.g., gender, race, age, educational attainment, etc.) (Pfeffer, 1983). Demographics play a key role in shaping whether people feel welcome and valued for their unique characteristics (Shore et al., 2011). For example, when studying the experience of 1,705 employees across 151 teams, Tsui et al. (1992) found that employees routinely ask themselves questions such as, "Is this my kind of organization?" and "Do I belong here?" and answer those questions based on the extent to which they see other people around them who hold similar social identities.

When people look around and do not see people who share their social identities, inclusion suffers. Kanter (1977) famously introduced the concept of tokenism to describe members of any social group who represent fewer than 15% of the total. In her classic study of women who worked in an organization that was comprised of 90% men, Kanter found that tokenized women felt highly cognizant of their gender identity and how it marked them as different from the modal (male) member of the work community. Moreover, token women reported being stereotyped and feeling scrutinized. Every action they took reflected upon the broader community of women, rather than representing them as unique individuals. Ultimately,

many chose to relieve this pressure by assimilation (adopting male characteristics) or invisibilization (avoiding conflict, risk, or even approbation). Although Kanter's study predates Jansen et al.'s (2014) research on inclusion—and she therefore did not use these exact words—the women she studied clearly experienced low belonging and authenticity in their work community. However, these negative experiences receded as gender representation at the firm increased. Kanter (1977) found that as a given group approaches gender parity, tokenized groups report feeling more accepted and valued. These results have since been validated and replicated across many identities and contexts, such token women performing in elite orchestras dominated by men (Allmendinger & Hackman, 1993) and token Black students studying at predominately White universities (Pollak & Niemann, 1998).

While Kanter (1977) conceptualized tokenization as harming all people in the numerical minority, subsequent research has demonstrated that negative impact varies based upon the status afforded to people by their social identities (Pollak & Neimann, 1998). For instance, token White men do not experience the negative effects reported by tokenized women in nursing (Heikes, 1991) or the law (MacCorquodale & Jensen, 1993). Nor do White men in tokenizing situations suffer the same negative experiences reported by token Black people in performance evaluations (Sackett, DuBois, & Noe, 1991).

These findings from the field of social psychology are consistent with the literature in K-16 education and the economics of education, which consistently demonstrates that organizational demography is crucial to the achievement of students who possess historically marginalized identities. Focusing on teacher identity as the salient dimension of organizational demography, researchers have found that women and students of color learn more from teachers who share their racial identity (Dee, 2004; Dee, 2005; Egalite, Kisida, & Winters, 2015; Holt &

Gershenson, 2015; Lindsay & Hart, 2017) and gender identity (Sears & Hennessey, 1996; Dee, 2005; Carrell, Page, & West, 2010; Mansour, Rees, Rintala, & Wozny, 2018). The preceding citations demonstrate that the effect is robust, holding true for Black, Latinx, Asian American, and Pacific Islander students in elementary, middle, and high school, as well as undergraduate college.

Positive Representation

This invites the question: Why is it the case that students with historically marginalized gender and racial identities learn more from teachers who share those attributes? The literature in education and the economics of education proposes that demographically similar teachers are more likely to expose their students to positive representations of their identities. They do this in two ways. Personally, demographically similar educators serve as role models to students with historically marginalized identities (Hess & Leal, 1997; Stewart, Meier, & England, 1989). Instructionally, demographically similar teachers are more likely to employ culturally relevant pedagogy that brings students' home language, culture, and interests into the classroom, thereby enabling them to pursue academic excellence without compromising their authenticity (Ladson-Billings, 1995).

For example, in an ethnographic study of low-income high school students in Washington, D.C., Fordham and Ogbu (1986) found that many Black students feared "acting White." These students perceived school to be a White institution designed to serve White students, where Black students are deemed unintelligent and unsuccessful. In this environment, demonstrating interest in academics would signal that were abandoning their Blackness. In the language of Jansen et al.'s (2014) later construct for inclusion, these students did not feel a sense of belonging at the school and could not pursue academic success authentically.

However, by bringing historically marginalized students' culture into the classroom—and explicitly positioning the classroom as a place designed for them to succeed—culturally relevant pedagogy has the potential to create a learning environment that promotes belonging and enables historically marginalized students to pursue authentic learning (Ladson-Billings, 1995). A teacher who practices culturally relevant pedagogy values the experience of historically marginalized students—and what it has taught them morally, intellectually, and politically—as a form of knowledge that is equally important as the knowledge and skills reified by the White pedagogical mainstream (Freire, 1970). By centering classroom discussions and learning activities around students' knowledge and experience, educators signal to students that they belong in the classroom, their experiences matter, and they can pursue learning as their authentic selves (Amstutz, 1999; Tisdell, 1995). In this way, they foster belonging and authenticity, which are the two essential components of inclusion (Jansen et al., 2014).

Fairness

The literature in social psychology, organizational management, K-16 education, and economics of education convincingly demonstrates positive effects from working with and learning from people who share those identities, based on who they are and how they teach. However, demography and positive representation are not sufficient on their own to create inclusive environments. One might imagine, for example, an organization school where the majority of teachers identify as Black, Indigenous, or people of color (BIPOC), mentor BIPOC students, and employ culturally relevant pedagogy. However, in this hypothetical school, the administration favors White students as a matter of policy, providing them with greater resources and opportunities, while denigrating the culture and traditions of students of color. Such an environment would not feel welcoming to students of color or support them to behave

authentically. This thought experiment points to the final factor that is necessary for inclusion: fair treatment.

Inclusive environments are characterized by policies, procedures, and individual behaviors that are "consistent with fair treatment of *all* social groups, with particular attention to groups that have had fewer opportunities historically and that are stigmatized in the societies in which they live" (Shore et al., 2011, p. 1277, emphasis in original). By definition, people will not feel valued in environments where they are not treated justly. Therefore, fairness matters for all. However, as Shore et al. (2011) note, fairness is particularly salient for people who have been historically marginalized on the basis of their identity, as they have ample reason to expect that they will be treated unfairly.

Hayes, Bartle, and Major (2002) propose that an individual's overall perception of fairness hinges upon "the management processes used to allocate opportunities, including interpersonal treatment, and the distribution of opportunities in the organizational context" (p. 450). That is, the policies used to determine who receives opportunities must be perceived as fair, the actual distribution of opportunities that results from executing these policies must be perceived as fair, and people must feel that they were treated fairly in the process. Colquitt et al. (2001) provide further evidence to bolster this model from the field of applied psychology. In their meta-analytic review of 183 studies on justice, Colquitt et al. (2001) find that the literature coheres around three dimensions of justice, each of which corresponds to one of the three factors described by Hayes, Bartle, and Major (2022): procedural justice, interactional justice, and interpersonal justice.

Procedural justice refers to the process by which decisions are made (Roberson & Stevens, 2006). It requires procedures to be followed consistently over time, based on accurate

information, and considering the needs and opinions of those people who are affected by the decision (Leventhal, 1980). Interactional justice is the extent to which people are treated fairly as those procedures are being implemented (Roberson & Stevens, 2006). It has two subtypes of its own. Interpersonal justice describes the degree to which people are treated with politeness, dignity, and respect by those who are making decisions or executing procedures. Informational justice refers to the extent to which decision-makers explain why procedures were implemented in a certain way (Colquitt et al., 2001). Finally, distributive justice focuses on the actual end distribution of opportunity itself (Roberson & Stevens, 2006). Although different people may have different views as to what distribution is fair, common rules include allocating opportunity according to contribution, need, and equal distribution (Colquitt et al., 2001). When procedural, interactional, and distributive justice are all present, they collectively constitute what Sheppard, Lewicki, and Minton (1992) term *system justice* or a broad organizational climate that promotes fair treatment of people at multiple levels of an organization, including both individuals and groups.

Equitable Learning

Equity is the condition in which all people have the access, resources, and opportunities necessary to succeed (University of Washington, 2021). Even in inclusive environments—where people are treated fairly and access, resources, and opportunities are available to all—there may be differences in who feels able to take advantage of these things. Positioning theory provides a useful framework for understanding why this is the case. Harré (2012) theorizes that not everyone in a social situation has equal ability to "perform particular kinds of meaningful actions at that moment and with those people" (p. 193). Rather, individual agency is determined by *positions* or collections of beliefs that people hold about the power, competence, moral standing,

and expectations of some individuals relative to others in a given context. These positions may emerge from intrapersonal understanding of self, interpersonal judgements, and—most important for this capstone—broader social narratives (Langerhove & Harré, 1992). To illustrate the difference among these drivers, imagine two colleagues, John and Jane, who are collaborating on a shared project. Intrapersonal self-understanding might lead John to believe (rightly or wrongly) that he is less competent than Jane and therefore self-censor his ideas, positioning her as the leader of their dyad. Jane might decide that John is a rival and therefore seek to discredit him in order to position her ideas more favorably in the interpersonal judgment of their peers. Finally, cultural narratives about gender might lead John—as a male—to feel freer to speak than if he were a woman, or lead others to treat his thinking more seriously than they would otherwise. As these examples illustrate, positioning can be intentional or implicit. In either case, positioning influences both the actions that people take as well as how their actions are interpreted by others (Langerhove & Harré, 1992).

Positioning does not only determine what people do in a singular moment; it shapes trajectories of participation over time. Anderson (2009) finds that "we are located culturally and historically as learners who are certain *kinds* of people within trajectories of knowing and being" (p. 293, emphasis in original). That is, if someone is positioned as a certain kind of person in some context—say, someone who is capable—then that will shape how their activities are interpreted over time in that context, creating narratives that become self-reinforcing. These trajectories are not neutral. Different trajectories of participation develop for different people in different contexts along predictable lines of social identity (Anderson, 2009). Keeping with the same example, who is considered "capable" is oftentimes a function of race, gender, and other social identities that have nothing to do with knowledge, skill, or potential.

Research in the field of social psychology provides empirical evidence for positioning theory. In social psychology, stereotype threat describes the phenomena of people being subjected to negative stereotypes about their social group when performing a task (Steele, 2010). Or, translated into the language of positioning theory, people experience stereotype threat when negative stereotypes about their social group position them as less capable than others. Worry about conforming to those stereotypes takes up mental capacity, reducing working memory (Schmader & Johns, 2003) and executive function (Inzlicht, McKay, & Aronson, 2006), while increasing self-consciousness and anxiety (Krendl, Richeson, Kelley, & Heatherton, 2008). Since people have limited cognitive resources available, devoting a large portion of those resources to anxiety and performance pressure is likely to depress performance. This creates a vicious cycle, where poor performance causes stereotype-threatened people to worry even more about confirming the stereotype, which further reduces performance, which further increases worry, etc. (Steele, 2010; Yeager, Walton, & Cohen, 2013).

Empirical studies have demonstrated that stereotype threat depresses performance among many different groups and on tasks as diverse as intelligence, memory, mental modeling, athletic performance, and social skills (Pennington et al., 2016). While no studies specifically examine the experience of aspiring, emerging, and executive leaders, the sheer reach of the phenomenon suggests that it is likely to impact IQP learning experiences.

Shapiro and Nueberg (2007) found that there are multiple types of stereotype threat, which affect different groups in different ways. They created a taxonomy of stereotype threats, based on two variables: the target of the threat (i.e., does the stereotype threaten one's self- or social identity?) and the source of the threat (i.e., is one at risk of confirming a stereotype perceived by themselves, in-group others, or outgroup others?). Pennington et al. (2016) then

build upon Shapiro and Nueberg's research to link specific mediators to each type of stereotype threat. They found that the strength of group identification, or the extent to which people feel a sense of belonging to a particular social group, is an important determinant of when and how people will experience stereotype threat. When group identification is low, people are most susceptible to stereotype threats that target their self-identity. For example, University of the Atlantic MBA students who plan to enter the nonprofit sector oftentimes do not identify with that social group as strongly as other identities, such as race and gender. Pennington et al.'s research suggests that they would be most susceptible to stereotypes that threaten to reflect poorly on them as individuals, such as how struggling in class might perpetuate the stereotype that they—as individual nonprofit leaders—are less driven than their peers who are interested in private equity or investment banking. By contrast, when group identification is high, people are more susceptible to stereotype threats that target their group identity. Pennington et al. (2016) use racial identity as the paradigmatic example of group-as-target stereotype threat. Because people of color oftentimes strongly identify with their racial or ethnic group, they are the most vulnerable to situations that threaten to reflect poorly on others in the group. This often arises in classroom contexts, where racist assumptions about cultural differences, family background, presumed socioeconomic status, and even innate intelligence create negative stereotypes about aptitude. For example, Martin (2009, 2012) establishes the extent to which stereotypes position Black children at the bottom of a racial hierarchy of mathematics ability and harm them psychologically, socially, and intellectually. His studies demonstrate how stereotype-driven positioning is not merely an abstract idea, but rather an experience of profound and lifelong consequence.

Conclusion

In summary, there is robust evidence that clinical therapy, exposure to new information, and learning new skills can change personality and subsequent behavior. This provides empirical evidence that IQP can alter personality traits by creating learning experiences for its user base. Research in psychology explains that these character-changing experiences occur through a two-step process, by which interventions first lead people to adopt new personality states. Then, repeated interventions over time lead people to form new habits, which eventually crystallize into enduring changes to their personality traits.

However, social identity mediates how people experience learning. In order for learning experiences to feel welcoming and enable historically marginalized people to show their true and authentic selves, there must be a critical mass of people who share their social identities, they must be treated fairly, and their identities must be positively represented. Moreover, historically marginalized people must be positioned in ways that support them to engage with agency and to their full potential. This requires them to see themselves as capable, others to see them as capable, and action to ameliorate negative stereotypes that reduce performance. If any of these factors are absent, the experience and success of historically marginalized people will suffer.

Conceptual Framework

Supporting IQP to deliver inclusive and equitable learning activities—and therefore to diversify pipelines into organizational leadership—requires examining how participant experience varies according to social identity. In particular, I seek to understand how IQP team members' design and facilitation decisions empower some learners to show their true and authentic selves, but not others; how these decisions permit some learners to exercise their full range of intellectual, emotional, and physical skills, but not others; and the extent to which both factors result in negative experiences or reduced learning for historically marginalized people.

As such, I employ critical race theory (CRT) as a conceptual framework to guide my research questions (RQs), data collection methods, and subsequent analysis. Critical race theory examines how racism is embedded in social systems to disadvantage people of color and privilege White people. This often occurs invisibly, without the conscious understanding of the people who lead those systems. In this way, CRT illuminates how well-meaning people may perpetuate racist outcomes and White supremacy—as is the case with IQP, where team members desire to serve leaders from all backgrounds but fail to consider what BIPOC learners need to feel valued, engage authentically, or experience success. Moreover, applying the core principles of CRT to dimensions of identity beyond race (e.g., gender, ability, sexual orientation, etc.) provides a powerful, unified framework for analyzing how a multitude of historically marginalized people may be poorly served by IQP's current approach, in order to recommend changes that will better meet their needs.

Theory and Application

My research methods operationalize four central principles of CRT. First, CRT asserts that racism is an invisible norm. Whiteness is the standard by which other races are measured, and departures from Whiteness are invisibilized or labeled deviant. This is the standard way of operating in America, the expected and everyday experience of most people of color in this country. When racism does not occur—*that* is the aberration (Bell, 1992). Therefore, my RQs assume that the lack of intentional effort to create inclusive and equitable learning experiences for BIPOC people and participants with other non-dominant identities will manifest as barriers to their success. While these barriers may be inadvertent and born from no ill will among IQP staff, they are no less real for that fact. My RQs ask how—not whether—systemic racism, sexism,

heteronormativity, ableism, and classism lead to differences in inclusion and equity for students with historically marginalized identities.

Second, although racism is pervasive in society, CRT holds that the idea of race itself is a social construct (Ladson-Billings & Tate, 1995). Racial categories are not real in any sense that corresponds to objective, inherent, or fixed facts about biology, separate from human perception (Mukhopadhyay, 2008). Therefore, as cultural, political, and economic conditions change over time, so too do the racial categorizations built upon them (Delgado & Stefancic, 2017). I operationalized this conception of race as socially constructed and constantly fluctuating in my data collection instruments by providing open-ended opportunities for survey respondents and interviewees to self-identify their race, ethnicity, and other social identities, rather than relying upon existing data from University of the Atlantic, which is standardized and static.[6] This ensured that my analysis of the extent to which IQP's learning activities were experienced as inclusive and equitable was predicated upon a nuanced, up-to-date understanding of learners' most salient social identities.

Third, CRT exhorts scholars and practitioners to take an intersectional approach, seeking to understand people's experiences as the product of multiple intersecting and mutually influencing identities (Crenshaw, 1990). This is particularly important when people hold multiple marginalized identities, which subject them to forms of oppression that are not experienced by people who hold those same identities separately (Crenshaw, 1989). Therefore, after collecting participants' self-identified demographic data, I analyzed those data in multiple

[6] University of the Atlantic collects standardized demographic data about students at time of matriculation, asking them to (for example) identify their race as Asian American, Black or African American, Hispanic or Latino, Native American or Indigenous, or White. However, these data tell an incomplete story. First, the categories are limited and may not correspond to people's true identities. Second, how students chose to identify in the past may no longer represent how they choose to identify today.

combinations, focusing on intersections among race, gender, sexual orientation, ability, economic background, and intended post-graduation employment sector.[7]

In my quantitative analysis, I conducted factorial analysis of variance (ANOVA) to calculate not only the extent to which individual dimensions of identity contribute to variance in inclusion and equity, but interaction effects among those identities. Following Crenshaw (1989, 1990), I paid particular attention to the experience of people who possess two or more marginalized identities in order to track how multiple forms of oppression create compounding negative effects. Likewise, in my qualitative analysis, I asked participants to consider how their identities inform their experience with IQP learning activities. This is reflected in both the open-ended structured questions that I posed to all interviewees and the follow-up questions that I used to probe selected responses for greater detail.

Finally, fourth, CRT asserts that the only way to fully understand the experience of racial oppression is to listen to the voices of people who experience racism (Matsuda, Lawrence, Delgado, & Crenshaw, 1993). I acted on this principle by directly asking participants to explain how they experienced marginalization and empowering them to shape the narrative of how their story is retold. In my survey, I followed Gillborn, Warmington, and Demack (2018) in recognizing that statistics are neither objective nor neutral: they reflect the biases and assumptions of the people who collect the data, organize the constructs, and communicate the findings. Therefore, I offered survey respondents the opportunity to react to drafts of my analysis and share feedback on how I could more accurately portray their experiences. In my interviews, I treated interviewees' experience as expert testimony which contextualizes and explains the

[7] Although not a traditional measure of privilege or oppression in society, conversations with Ruth Bosanquet, the executive director of IQP, suggest that employment sector is salient within the program. Business students who pursue careers outside of finance and consulting often report feeling unseen or less valued.

quantitative data. This was particularly important in cases where people from historically marginalized communities described experiences of oppression that did not register as statistically significant in the quantitative data—or even contradicted what the quantitative data portrayed as true for the population as a whole.

Project Questions

IQP aspires to provide learning experiences that will support a wide variety of people to develop personality traits that predict successful individual and organizational outcomes, starting with empathy, openness, grit, and achievement motivation. However, they did not develop their initial suite of resources with participants' social identities in mind: they did not consider what might be required for people with historically marginalized identities to feel valued, engage authentically, and experience success. As established in the Literature Review, CRT asserts that racism infects all aspects of society, upholding Whiteness as normative and rendering other racial identities invisible or deviant. This experience of constantly having one's differences erased or stigmatized rather than celebrated is shared by many historically marginalized communities, including women and transgender people (Johnson, 2002; Pilcher & Whelehan, 2016), queer people (Johnson, 2002; Seidman, 1994), and people with disabilities (Siebers, 2013). Therefore, my research questions assume that IQP's lack of proactive attention to EDI results in learning activities that are un-inclusive and inequitable for students with a wide variety of historically marginalized identities. I seek to identify the specific challenges experienced by these students and understand how their experiences differ from those of their more privileged peers:

- **RQ1**: To what extent do participants experience belonging and authenticity in IQP learning experiences? How does this vary by individual social identities and combinations of social identities?
- **RQ2**: To what extent do IQP learning experiences provide participants with the access, resources, and opportunities necessary to strengthen their personality traits and become more successful leaders? How does this vary by individual social identities and combinations of social identities?

Through these research questions, I aim to understand where gaps in inclusion and equity exist and why they exist, especially among people who identify with multiple historically marginalized communities. This positions me to then draw upon literature about fostering inclusive and equitable learning to recommend changes to how IQP designs and executes learning experiences. In this way, I hope to increase the likelihood their platform prepares leaders from all backgrounds to thrive—and therefore contributes to a more diverse pipeline of people into organizational leadership at all levels.

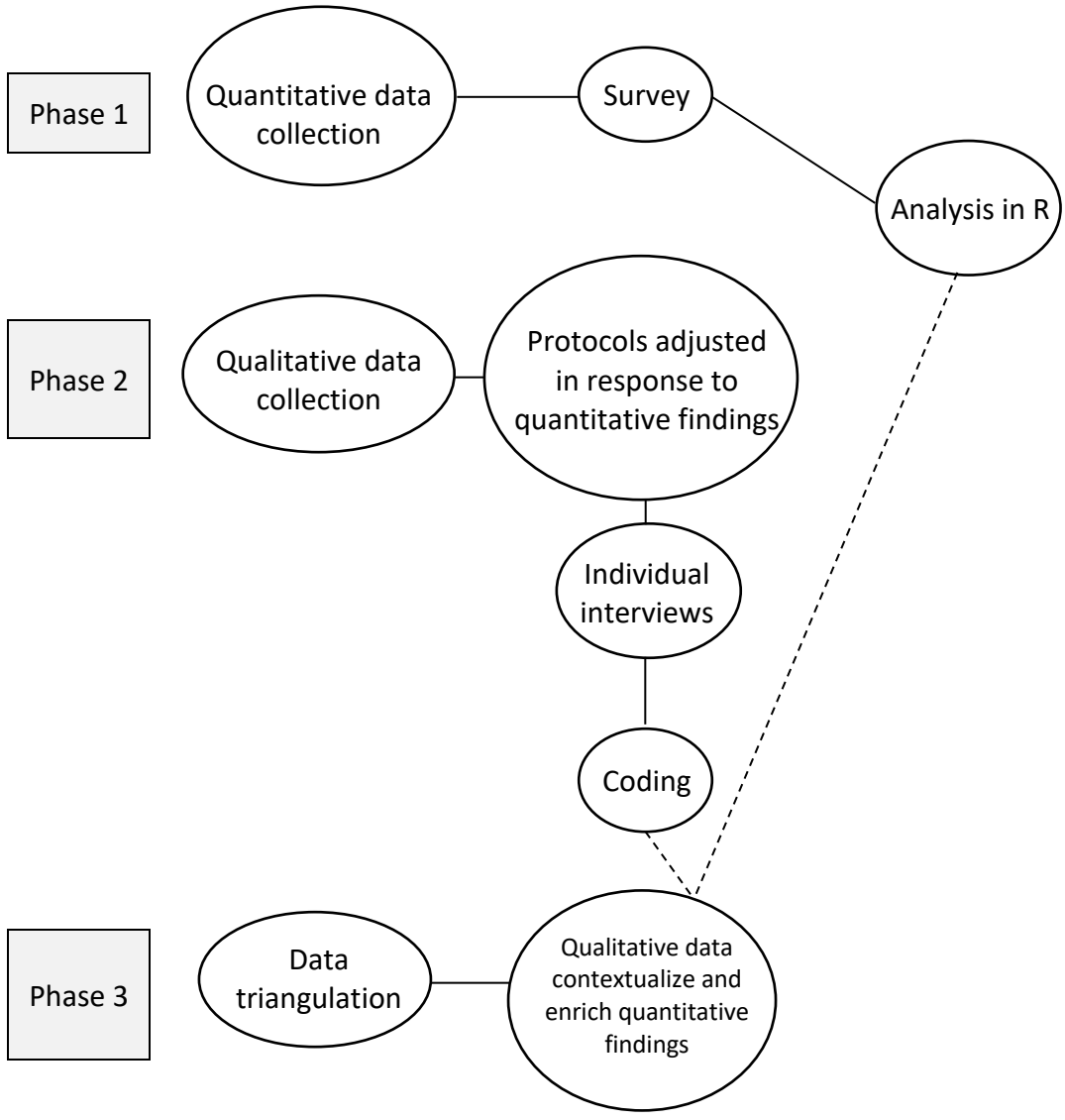
Project Design

I developed an exploratory sequential mixed methods design to evaluate the extent to which IQP participants experience learning activities as inclusive and equitable, as well as how these experiences vary according to social identity. In sequential design, qualitative and quantitative data collection occur in separate phases (Creswell, 2013). I began by administering a quantitative survey to gather initial trends about what was experienced by the participant population overall. I then used these findings to inform the design of my qualitative interviews, which collected more in-depth and nuanced information about the human experiences that undergirded the quantitative trends. Finally, I triangulated across all of the findings, using the

qualitative data to contextualize the quantitative findings (Creswell, Plano Clark, Gutmann, & Hanson, 2003) and increase the depth and breadth of my analysis beyond what could be found by any one approach in isolation (Almalki, 2016). This process is summarized in Figure 1 below.

Figure 1

Phases of project design



Visual adapted from Rose & Bowen (2017).

In the following sections I describe each of the data collection instruments, how they were constructed, how and I selected the sample population. See Appendix A for the email I used to introduce this capstone project, including how I explained the project's purpose and informed consent to participants. See Appendices B and C for my survey design and interview protocol, respectively, including how they align to research questions, literature, and conceptual framework. See Appendix D for my data collection timeline.

Participant Survey (Quantitative)

I administered a survey to University of the Atlantic MBA students who enrolled in Professor Evan Yamamoto's *Interpersonal Dynamics* class in 2019, 2020, and 2021.[8] Among respondents who indicated that they had participated in IQP learning experiences, the survey assessed the extent to which the activities felt inclusive (RQ1) and provided them with the supports they needed to succeed (RQ2).

Data Collection

In order to maximize responses, I designed the survey to take less than 30 minutes to complete (Deutskens et al., 2004), generate momentum by beginning with short multiple-choice questions that have low cognitive load (Liu & Wronski, 2017), and eschew a progress bar, the presence of which encourages dropout by focusing attention on how much work remains (Crawford, Couper, & Lamias, 2001; Liu & Wronski, 2017). The survey administration window was three weeks. Two days before the end of the survey window, I sent non-responders a personalized email reminder to complete the survey.

[8] My original plan was to send the survey to a random sample of all University of the Atlantic students between 2019-2021. Unfortunately, the institution restricts broad-scale research on the full student body. However, Professor Yamamoto—who is the faculty co-sponsor for IQP—like all professors may email his current and former students at any time. Therefore, targeting Professor Yamamoto's students enabled me to sidestep this restriction and access a sample of the student population over the same time period. For potential challenges to validity introduced by this sampling method, see the *Limitations* sub-section of the Discussion.

Survey Protocol

The survey had three parts: demography, inclusion, and equity. The demography section of the survey asked respondents to self-identify their race, gender, sexual orientation, ability, economic background, and intended employment sector. I collected these data to enable intersectional analysis of the inclusion and equity responses. In order to maximize the validity of the results, the questions followed federal standards for collecting demographic data (Health & Human Services, 2011; Standards for Maintaining, Collecting, & Presenting Federal Data on Race & Ethnicity, 2016), with four notable departures. First, I updated federal language to include terms that communities use to define themselves which have not yet made their way to the census (e.g., Latinx in addition to Hispanic and Latino; queer, in addition to gay and lesbian; etc.). Second, I ordered response options alphabetically to avoid signaling that options were listed in terms of normativity or desirability. Third, I always provided write-in and opt-out options, which the federal government does not consistently employ. Fourth, I added one question that is not part of the federal standard—asking respondents how they tend to be perceived by others—to understand their perspective on the social construction of race and ethnicity.

I created the inclusion section of the survey by adapting Jansen et al. (2014)'s design, asking participants to rate the extent to which feel they experienced learning activities as fostering belonging (questions 1-8) and promoting authenticity (questions 9-16) on a five-point Likert scale ranging from *strongly disagree (1)* to *strongly agree (5)*. Table 1 displays the eight Likert statements that comprise each variable. Since Jansen et al.'s original instrument was designed to assess the extent to which people experience inclusion in group dynamics, I adjusted phrasing to better fit the context of learning experiences. For example, I changed the question

stem “This group gives me the feeling…” to “The learning experiences gave me the feeling…” I randomized question order to control for question order bias.

Table 1

Likert statements measuring belonging and authenticity

Variable	Likert statements
Belonging	1. The learning experiences gave me the feeling that I belong
	2. The learning experiences gave me the feeling that I am part of the group
	3. The learning experiences gave me the feeling that I fit in
	4. The learning experiences treated me as an insider
	5. People in the learning experiences liked me
	6. People in the learning experiences appreciated me
	7. People in the learning experiences were pleased with me
	8. People in the learning experiences cared about me
Authenticity	1. The learning experiences allowed me to be authentic
	2. The learning experiences allowed me to be who I am
	3. The learning experiences allowed me to express my authentic self
	4. The learning experiences allowed me to present myself the way I am
	5. The learning experiences encouraged me to be authentic
	6. The learning experiences encouraged me to be who I am
	7. The learning experiences encouraged me to express my authentic self
	8. The learning experiences encouraged me to present myself the way I am

I designed a novel instrument to measure equity, based upon my findings from the literature review. In it, I asked respondents to assess the extent to which they experienced learning activities as providing the access, resources, and opportunities they needed to succeed, aligned to how I am conceptualizing equity (questions 1-3); the extent to which they believe the learning experiences changed their short-term actions or supported them to develop new habits, which is the mechanism by which character trait change occurs (questions 4-5); and the summative impact of the learning experiences (questions 6-7). Table 2 displays the Likert statements that comprise each of these variables. Respondents provided answers on a five-point

Likert scale ranging from *strongly disagree (1)* to *strongly agree (5)*. I randomized question order to control for question order bias.

Table 2

Likert statements measuring equity, habit formation, and impact

Variable	Likert statements
Equity	1. The learning experiences provided me with access to people who helped me to strengthen my desired personality traits 2. The learning experiences provided me with resources that helped to strengthen my desired personality traits 3. The learning experiences provided me with opportunities that helped to strengthen my desired personality traits
Habit formation	1. The learning experiences led me to try new behaviors 2. The learning experiences led me to form new habits
Impact	1. As a result of participating in the learning experiences, I strengthened my desired personality traits 2. The learning experiences were ultimately effective at helping me to grow as a leader

In both the inclusion and equity sections of the survey, respondents who participated in multiple learning activities could describe in an optional, free-text field how their experience varied across different activities.

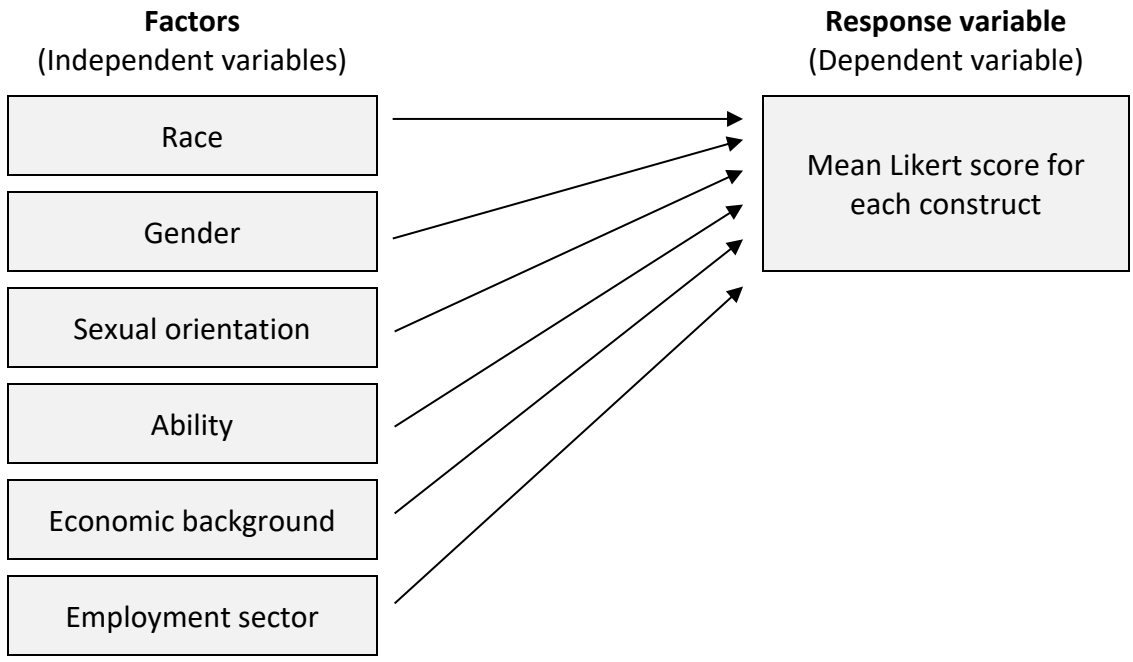
Analysis

I exported survey responses into a standard record format, then loaded them into R for statistical analysis. I began by finding the mean Likert score for each construct (authenticity, belonging, equity, habit formation, and impact), in order to represent the average experience of that construct. I then built six ANOVA models for each construct to determine the likelihood that variation in Likert scores was due to real (non-random) differences among groups according to

race, gender, sexual orientation, ability, economic background, and post-graduation employment sector. This is visualized in Figure 2 below.

Figure 2

Factors and response variables in quantitative survey ANOVA models



However, a significant ANOVA only indicates that a difference exits; it does not specify where that difference is located. For example, an ANOVA that examines the correlation between racial identity and authenticity might indicate that there are significant differences in authenticity according to respondents' race, but it will not indicate which racial groups experience greater or lesser authenticity. Therefore, whenever an ANOVA returned significant results, I conducted post hoc testing using Tukey's honestly significant difference (HSD) test, a tool to compare the mean of each sample to the mean of each other sample. These pairwise comparisons indicate

which of the specific groups are significantly higher or lower than the others. For both the ANOVAs and Tukey's HSD, I determined if differences were statistically significant at the level of $p=0.05$.

Finally, in order to operationalize my conceptual framework of CRT, I built two-way ANOVAs to look for interaction effects between race and other identities (gender, sexual orientation, ability, economic background, and employment sector) for each construct. These models indicated whether holding certain identities in combination resulted in experiences that were significantly different from people who held those same identities independently.

Whenever an ANOVA returned significant results, I tested for simple main effects. For example, if I were to find a significant interaction between race and economic background on belonging, then I would need to create five new ANOVAs, each testing the effect of economic background on belonging using only the subset of data for one racial group (e.g., American Indian or Alaska Native, Asian, Black, Pacific Islander or Native Hawaiian, or White). Since testing for simple main effects breaks the interaction into component parts and tests each of them separately, Bonferroni's procedure requires dividing alpha by the number of tests performed (Stevens, 1999). In this case, I would determine if differences were statistically significant at the level of $p=0.05/5=0.01$.

Finally, any significant main effect required post hoc testing using Tukey's HSD to determine which specific groups were higher or lower than others. Keeping with the same example, if I were to find a significant main effect between economic background and belonging among White people, then Tukey's HSD could determine whether White people who grew up in poverty experienced significantly greater belonging than White people who did not (or the reverse).

Participant Interviews (Qualitative)

I conducted semi-structured, open-ended interviews with a sample of University of the Atlantic MBA students and alumni about the extent to which they experienced learning activities as inclusive (RQ1) and equitable (RQ2). Following the principles of exploratory sequential design, I adjusted the draft interview protocol based upon my initial findings from the quantitative survey, in order to explore themes that emerged from that instrument.

Data Collection

At the end of the quantitative survey, I asked respondents to indicate if they would be interested to share further perspective in an interview. I then attempted to schedule an interview with everyone who responded affirmatively. In cases where people did not respond, I sent personalized follow-up emails two days and seven days after my initial outreach. I ceased communication if respondents remained noncommunicative after three contact attempts or replied at any point that they were no longer interested in participating.[9]

Interview Protocol

Through my semi-structured interview protocol, I sought to (1) determine how participants self-identified, to enable intersectional analysis of their responses; (2) learn about how they experienced the learning activities and uncover links between those experiences and their social identities; and (3) gather narrative data that contextualized and enriched the understanding of quantitative data from the survey. I began by inviting participants to share their most salient experiences, without direction, in order to uncover the information that felt most

[9] Non-probability sampling is less reliable than probability-based methods, which use random selection to build a representative pool. However, IQP researchers warned me that they had experienced very low interview response rates in the past (~2%), suggesting that any sampling method which only targeted a subset of the population might result in unacceptably few responses. For potential challenges to validity introduced by this sampling method, see the *Limitations* sub-section of the Discussion.

important to the interviewee. Then, I asked a series of specific questions about the extent to which interviewees experienced learning activities as inclusive and equitable according to the dimensions of each construct. I probed responses to look for connections across answers, and asked follow-up questions to gather further detail when necessary. I skipped any questions that were pre-emptively addressed when participants shared their initial reflections.

Analysis

I recorded interviews and transcribed them verbatim. In order to code the interview data, I conducted iterative cycles of analysis. I began by generating an initial set of hypotheses for what patterns would emerge, grounded in my conceptual frame, literature review, and the context that I had gathered from conversations with IQP's leadership team. Then, I combed through the transcripts, highlighting key words or phrases that matched those themes as well as identifying new ones. When unanticipated codes emerged, I re-read the literature I had already reviewed to mine it for new insights. Deepening understanding of the academic literature also changed the lens through which I interpreted the transcripts, leading me to see new themes that were invisible before. In this way, the literature review, interview methods, and analysis formed an interacting system where "each influences the other and each is a major factor in the outcome of the research" (Grady & Wallston, 1988, p. 12, as cited in Maxwell, 2006, p. 30). I repeated cycles of reading the transcripts and coding the data until additional readings yielded no new codes.

I included four components (columns) for each code in my codebook: definition, origin, importance, and example. I defined the codes to ensure that I used them consistently throughout my analysis. Moreover, I tracked whether codes originated deductively (i.e., derived from my literature review, conceptual framework, etc.) or inductively (i.e., based on the qualitative data itself) so that I could keep track of which findings matched my *a priori* hypothesis and which

were unexpected. I noted the importance of each code to ensure that there was a clear purpose for including the code in my analysis, as a forcing mechanism to avoid unnecessary bloat. Finally, I included an example of each code to help me better identify subsequent appearances in transcripts. See Figure 3, below, for an excerpt from my codebook, and Appendix E for the full codebook.

Figure 3

Excerpt of codebook for qualitative interviews

Code	Definition	Origin	Importance	Example
	Description of the code	How the code became part of the study	Why the code matters to the study	
Systemic oppression	Marginalization of specific groups supported and enforced by society	Deductive – conceptual framework	Core element of CRT	Lack of resources invested in BIPOC communities
Intersectionality	Relationship among multiple dimensions of identity	Deductive – conceptual framework	Core element of CRT	Sharing an experience grounded in multiple simultaneous identities

Findings

Descriptive Statistics of the Sample

One hundred twenty-one University of the Atlantic students or alumni responded to the quantitative survey. Among these respondents, 75 (62%) were students or alumni of the full-time traditional MBA program (MBA) and 46 (38%) were students or alumni of the part-time

executive MBA program. As hypothesized, there were few significant differences between the demographics of survey respondents and participants in the MBA/executive MBA programs overall. Among participants in the MBA program, there were no significant difference in the proportion of respondents who identified as American Indian or Alaska Native, Asian, Native Hawaiian or Pacific Islander, female, or male.[10] However, comparative error rate analysis revealed statistically significant differences in the proportion of Latinx, Black, and White respondents relative to the MBA program as a whole. This is depicted in Table 3 below.

Table 3

Comparative error rates between capstone (sample) and MBA program (population)

	Sample proportion	Population proportion	Comparative error (CE)	Difference (D)	D > CE
Latinx	0.17	0.03	8.59	14	Yes
Black	0.01	0.08	3.01	7	Yes
White	0.64	0.42	11.57	22	Yes

This invited the question: Were these differences due to the study topic or design, which might attract or alienate people who belong to particular communities? Or were they due to the composition of Professor Yamamoto's MBA *Interpersonal Dynamics* class, from which survey respondents were sampled? Further comparative error rate analysis demonstrated that Black students were underrepresented in Professor Yamamoto's class, relative to the MBA program as a whole, while Latinx and White students were in line with MBA program demographics. This is shown in Table 4 below.

[10] University of the Atlantic does not collect or did not release to me data about students' sexual orientation, ability status, or economic background.

Table 4

Comparative error rates between Interpersonal Dynamics *class (sample) and MBA program (population)*

	Sample proportion	Population proportion	CE	D	D > CE
Latinx	0.05	0.03	2.96	2	No
Black	0.03	0.08	2.88	5	Yes
White	0.41	0.42	7.05	1	No

Moreover, the proportion of survey respondents who identified as Black was not significantly different from the composition of Professor Yamamoto's class, as displayed in Table 5.

Table 5

Comparative error rates between capstone (sample) and Interpersonal Dynamics *class (population)*

	Sample proportion	Population proportion	CE	D	D > CE
Latinx	0.17	0.05	8.92	12	Yes
Black	0.01	0.03	3.11	2	No
White	0.64	0.41	12.58	23	Yes

Altogether, this suggested that the underrepresentation of Black students in the capstone study likely followed from their underrepresentation in the *Interpersonal Dynamics* class, rather than an element of study design that alienated Black students specifically.[11] By contrast, the overrepresentation of Latinx and White students in the capstone seemed to follow from an

[11] For discussion of potential challenges to external validity resulting from the underrepresentation of Black students in the quantitative survey, see the *Limitations* sub-section of the Discussion.

element of the study design that attracted these demographics, rather than the composition of the pool from which respondents were sampled.

Among participants in the executive MBA program, there were no significant differences in the proportion of respondents who identified as American Indian or Alaska Native, Black, Native Hawaiian or Pacific Islander, White, Latinx, female, or male. However, comparative error rate analysis revealed significant differences in the proportion of Asian respondents relative to the executive MBA program, as depicted by Table 6.

Table 6

Comparative error rates between capstone (sample) and executive MBA program (population)

	Sample proportion	Population proportion	CE	D	D > CE
Asian	0.50	0.25	15.60	25	Yes

Examining the composition of Professor Yamamoto's executive MBA *Interpersonal Dynamics* class (from which respondents were sampled) revealed that Asian students were overrepresented relative to the program overall. This is shown in Table 7.

Table 7

Comparative error rates between Interpersonal Dynamics *class (sample) and executive MBA program (population)*

	Sample proportion	Population proportion	CE	D	D > CE
Asian	0.37	0.25	9.29	12	Yes

However, Table 8 demonstrates that the proportion of Asian respondents in the capstone study was in line with Professor Yamamoto's executive MBA class.

Table 8

Comparative error rates between capstone (sample) and Interpersonal Dynamics *class (population)*

	Sample proportion	Population proportion	CE	D	D > CE
Asian	0.50	0.37	16.14	13	No

Altogether, these comparative error analyses showed that overrepresentation of Asian executive MBA students in the capstone likely followed from their overrepresentation in the executive MBA *Interpersonal Dynamics* class, rather than an element of study design that attracted them specifically.

I also surveyed participants about their sexual orientation, ability, economic background, and intended post-graduation employment sector. However, I did not find significant variation in any of these results and therefore will not describe participant demographics according to these variables in-depth here. For more detail, see Appendix F.

Finally, I conducted nine qualitative interviews, approximately evenly split between the MBA (44%) and executive MBA (56%) programs. Six interviewees identified as men and three as women. Three identified as Asian, five as White, and one as White and Latinx. The interviewees of color were evenly split between women and men. However, no interviewees identified as Black. As a result, the voice and perspective of this community was noticeably absent from the qualitative analysis. For potential challenges to validity introduced by this absence, see the *Limitations* sub-section of the Discussion.

Beyond ethnicity, race, and gender, when asked to identify their most salient identities, one interviewee identified as lesbian, gay, or bisexual. None identified as currently or formerly disabled or as having grown up in a low-income community. In response to the open-ended question about other identities, four interviewees identified as foreign-born nationals and two identified as religious.

Definition of Learning Experiences

When I asked interviewees to describe the extent to which they experienced IQP learning experiences as inclusive, many took an expansive view of the term. Whereas I had originally conceptualized learning experiences as the formal articles, exercises, podcasts, etc., housed within the platform, interviewees also included the IQP character assessments and the data visualization platform itself as sources of knowledge ("the assessment helped me to understand my strengths and weaknesses with lots of nuance, growing my self-awareness"), as well as classroom discussions and activities that occurred outside of IQP but drew upon the data (e.g., assignments in Professor Yamamoto's class and work with University of the Atlantic-provided executive coaches).[12] This interviewee described the integrated nature of the learning experiences particularly well:

> What was great about the experience was—in parallel to working with an [executive] coach—I was taking the dynamics class and negotiations class. All of these classes get you to think deeply about how you work with others. They all meshed with each other

[12] Indeed, interviewees reported less frequent engagement with the learning experiences housed within the IQP platform than other learning activities because they were positioned as being separate from the regular course of study ("I knew that [Professor Yamamoto] said you can revisit the platform and there's a lot more in-depth stuff to it than just the survey… but I didn't have the time"). This phenomenon is further explored in Finding 2b and Recommendation 2b.

and the assessment data. I was using elements of the class in my coaching feedback sessions, using survey results in class, etc. All of that was very useful together.

Therefore, my findings consider how all elements of the IQP system that contribute to learning—including the character assessment, data visualization tools, formal learning experiences contained within the IQP platform, executive coaching, and MBA class curriculum—inform the extent to which participants experience inclusion and equity.

Findings Related to Research Question 1

Finding 1a: IQP participants experienced a high degree of belonging and authenticity across social identities, despite little explicit attention to EDI in the design of learning activities, due to the way in which those activities center individual identity and needs.

When asked to describe their experience with IQP learning activities, survey respondents reported a mean score of 3.79/5.00 for belonging and 4.20/5.00 for authenticity. The 95% confidence interval for authenticity (4.08, 4.31) was significantly higher than the 95% confidence interval for belonging (3.67, 3.92). This indicated that learners felt more encouraged to be true to themselves than valued for being true to themselves, although the average learner experienced relatively high degrees of both sentiments.

When disaggregating data by social identity, ANOVA models showed no mean differences in belonging according to learners' ethnicity, race, gender, sexual orientation, economic background, or employment sector. There were significant differences according to gender, which will be discussed in Finding 1b. Likewise, ANOVA models showed no mean differences in authenticity according to race, gender, sexual orientation, ability, economic background, or employment sector. There were significant differences according to ethnicity,

which will be discussed in Finding 1c. These results are summarized in Table 9, with expanded detail in Appendix G.

Table 9

ANOVAs modeling differences in belonging and authenticity according to social identity

	Belonging		Authenticity	
	F-statistic (F)	P-value (P)	F	P
Ethnicity	0.22	0.64	6.66	0.01*
Race	0.36	0.78	0.94	0.44
Gender	5.30	0.02*	0.46	0.50
Sexual orientation	0.92	0.44	0.37	0.78
Ability	7.95	0.0006***	2.51	0.09
Economic background	1.13	0.33	0.32	0.73
Employment sector	4.27	0.42	1.17	0.33

$*p < 0.05$. $**p < 0.01$. $***p < 0.001$

Table 9 also shows a highly significant difference in belonging according to ability. However, post-hoc testing with Tukey's HSD located the difference in a small group of people (n=2) who preferred not to indicate their ability status; they experienced less belonging than both people with disabilities and people without disabilities. I considered excluding these data from the analysis because people who choose not to answer a question do not necessarily constitute an ability group. That is, these two individuals could be very different from one another and not constitute a true "group" in terms of this variable. However, within the context of my conceptual framework and this research question—i.e., the critical study of belonging and authenticity—withholding information may provide a valuable signal about the extent to which people feel comfortable revealing their identity. Therefore, I decided to include people who choose not to identify as a group in my statistical analysis.

I applied this approach consistently across identity groupings. However, *ability* is the only variable for which there was a significant finding among respondents who chose not to identify. Moreover, because n=2 and there is no qualitative evidence that interviewees feel unsafe revealing ability status, I do not feel comfortable extrapolating conclusions about belonging from this finding, and so it does not feature prominently in my Findings or Recommendations.

I was surprised by the high mean belonging and authenticity on the quantitative survey, the few cases of significant variation according to social identity, and the overall positive tone of the qualitative feedback. Critical race theory holds that racism is systemic and standard. To borrow Tatum's (2003) analogy, it is the smog we breathe: ubiquitous, unseen, and impossible to escape. One might not identify as a *smog-breather*, but they cannot avoid breathing the air. Likewise, whether or not someone intends to be racist, they cannot help but be socialized into racism. Therefore, CRT (Bell, 1992) and other critical theories (Johnson, 2002; Pilcher & Whelehan, 2016; Seidman, 1994; Siebers, 2013) hold that people with historically marginalized identities will experience alienation and oppression absent intentional efforts to the contrary, and I expected to encounter significant differences in the experience of learners according to their race and at the intersection of race and other historically marginalized identities.

The interviews provided an explanation for why this was not the case, as participants' reflections illustrated how IQP learning experiences are highly tailored to individual learners. Across all types of learning activities, participants consistently reported that IQP learning experiences enabled them to become truer versions of themselves over time. This quotation is representative of the whole: "I have more awareness of my strengths and weaknesses [now], and I am actually more confident and comfortable to be myself."

The literature on culturally relevant pedagogy holds that centering learning around students' individual knowledge, needs, and experiences enhances belonging and creates an environment where they can pursue learning authentically (Amstutz, 1999; Tisdell, 1995). Therefore, even though the IQP team did not intentionally seek to center EDI in the construction of their learning activities, they succeeded at creating an inclusive environment for people who hold a wide variety of social identities.

Many participants expressed appreciation for the extent to which IQP learning activities were tailored to their particular identity and individual needs. For example, one student lauded the IQP assessment as "taking something that could have been very cookie-cutter" and instead providing a highly personalized experience by charging them to "to find yourself in these things and come out with things that work for you." Likewise, multiple interviewees praised their executive coaches as building a deep and trusting relationship, which enabled them to be vulnerable and take risks, and yielded insight that felt deeply personal. This is especially notable for how often it occurred across lines of racial difference. For example, this White student described working with an executive coach of color as an intimate and affirming experience: "I felt like I could be super open, honest, [and] vulnerable… My coach asked constantly, 'How does that make you feel?' It wasn't therapy, but there was an aspect of therapy." An immigrant woman of color working with a White American coach echoed similar sentiments:

> We had a five or six session in total. The first two or three session really established a relationship with the coach… The coach always asked me questions and connected with me quickly. So after data collection, the coaching sessions were very specific to just about me… It's harder to learn those from the book because book is too generic. This is the very specifically designed for me, which is great.

By supporting participants to achieve greater self-understanding and placing their priorities at the center of learning, IQP signaled that their experiences matter, they belong in the program, and they can pursue learning as their authentic selves.

Finding 1b: Women experienced significantly less inclusion than other learners, due to (1) learning activities that do not consider how their gender identity shapes lived experience, (2) feeling expected to code-switch into predominantly male leadership archetypes, and (3) being positioned as unimportant or incapable by male peers.

While there was overall little variation in belonging and authenticity according to social identity, the negative experience of some women is a striking outlier. This is evident in the quantitative data, where Tukey's HSD post-hoc testing demonstrated that women experienced less belonging (3.63/5.00) than men (3.92/5.00), a difference which was significant ($p\text{-adj}<0.05$). Qualitative interviews underscored this point powerfully, as two (of three) women spoke extensively about experiencing lack of belonging specific to their gender.

First, these women yearned for learning activities that contextualize their individual personality traits and needs in a broader picture of how social identities such as gender are privileged or marginalized by society. Absent these considerations, the learning activities felt generic and therefore alienating; they seemed to be designed for an audience to which neither of the women belonged. For example, one of the women lamented that "in both IQP and classroom learning… no part of the material or content or what was given to you was tailored towards your identities. It was all very generic." She went on to describe the experience of learning that she lacked presence and receiving advice to become part of the "in-crowd" so that she felt more comfortable speaking up. But "how do you do that when you're different?" she asked, noting

that what is useful "advice for a cis straight White man is different from advice for someone who doesn't identify as any of those things."

Second, it is not the case that the women were merely offered unhelpful advice oriented towards men. Rather, they felt pressured to adopt predominately male archetypes of leadership. An example of this phenomena can be found in a classroom activity where students examined case studies of influential leaders and discussed what they could learn from those leaders' personality traits. As one woman noted dryly, "Obviously, they were all men."[13]

By failing to explicitly consider female learners' social identities, these learning experiences pushed students to adopt narrowly and stereotypically male patterns of behavior. For example, one woman described classroom learning activities as "very much like the world as it is," meaning that successful leadership "looked like male—and typically White male—influence tactics." Another asked rhetorically, "[Is the goal to] improve to be more like men in power? What? How did we decide that?" Indeed, the experience of constantly comparing themselves to male leaders provoked deep frustration. These women were never sure if the areas of growth identified by IQP assessments reflected their genuine developmental needs as individuals, or simply biases that they ought to act more like men. Their experiences echo Pilcher and Whelehan's (2016) finding that women should expect their differences to be erased or stigmatized rather than celebrated, and Kanter's (1977) description of how tokenized women feel highly cognizant of their gender identity and how it marks them as different from men. In this case, women are *not* tokens in the context of University of the Atlantic enrollment: approximately 50% of the MBA program and 33% of the executive MBA program identify as

[13] In fact, three of the seven leadership case studies in Professor Yamamoto's *Interpersonal Dynamics* class profiled women. However, that does not make this statement any less important. For both women quoted here, the overall experience of participating in IQP and classroom learning was dismissive of their gender identity. Indeed, I find it significant that they felt that way *even though* Professor Yamamoto sought to provide a gender-balanced curriculum.

female, well above the 10% threshold for tokenization. However, these women described feeling significantly disadvantaged within the context of the business community overall, e.g., referencing the "historical positions of power held by men," "the agency of heterosexual cis men in business," "the boys' club" of business leadership, etc. This suggests that they see themselves as tokenized within the broader field of business leadership, which may then shape their experience in the University of the Atlantic MBA program.

Two White men who participated in the same learning activities reported diametrically opposite experiences. The first, when asked to describe the extent to which he felt validated by his assessment results, simply replied, "Yeah, I did the [assessment] and I thought: Yep, this is me." The second, describing the extent to which he saw himself reflected in the case studies, said, "These guys… they were so very excellent at what they were doing. They represented things I strive to become." The straightforwardness of their reflections—the simple ease with which they connected with class content—is striking in comparison to the self-doubt expressed by their female peers.

Finally, third, the women mentioned multiple instances of being positioned as unimportant or incapable by male peers. In a particularly salient example, one woman described her former CEO visiting the program to deliver a guest lecture. Her male classmates openly admitted that they "didn't really think [she] knew him or worked for him" until he mentioned her by name during the lecture and sought her out afterwards to debrief. It was clear to her that "these guys didn't perceive [her] as someone who would have done work for a CEO." Another woman noted that men would occasionally tell her that they appreciated her contributions at the end of a term. However, "they'll tell the other guys in the moment. They'll lift each other up, they're there to be each other's confidence-builder." She never left class knowing that she made

a positive contribution and told me that it weighed on her that she was not treated equal to the men. Positioning theory holds that individual behavior is governed by the perceptions that people hold about themselves and others in a given context, which are often derived from broader social narratives about identity and the power or marginalization that it confers (Langerhove & Harré, 1992). In these examples, male students positioned their female classmates as less competent by virtue of their gender, which resulted in women feeling alienated from the classroom community.

Both women who spoke about this at length in our interviews were emphatic that their experience was widespread among their peers. One woman explained that "there were a lot of people who are really upset" by the hegemony of male leadership archetypes. They wanted her to "push the fight" for IQP learning activities to recognize "how [experiences are] different for women or people of color or any other sort of minority group." However, she personally felt worn-down and did not have that fight in her:

> I didn't exhibit a lot of fight—and I don't feel like as a woman I often get to. I certainly haven't gotten to very much here at the University of the Atlantic. I don't think it plays well when a woman does. So I don't know that I really care, I don't know that I ever will, I don't know that the world really wants me to. Sure, we could debate if that's right or not. But like whatever, yeah, it's fine.

This comment illustrates the impact of stereotype threat, as the experience of worrying about—and working to overcome—negative stereotypes is an exhausting form of mental and emotional labor (Steele, 2010).

Critical race theory argues that the only way to fully understand the experience of racial oppression is to listen to the voices of people who experience racism (Matsuda, Lawrence, Delgado, & Crenshaw, 1993). Likewise, I sought to listen to women who were oppressed on the

basis of their gender. Both interviewees who spoke at length about their experiences with sexism told me that they wanted IQP learning activities to explicitly account for how social identity confers power, privilege, or marginalization. In this example, a woman asked for greater "context," by which she meant grounding in identity:

> I'm not even asking for *all* of the context. I don't need the system to know that I'm a Mexican woman. Even if it was like, "If you're a woman, here's how this might be different." Even that would be appreciated. Or for someone else, "If you're a person of color, here's how this could be different." I'm sure that would be appreciated. It doesn't need to be so sophisticated that it's looking at every combination of identities. It's just like, "Here's another way to think about things."

The women noted that these changes to IQP learning activities would not *only* benefit historically marginalized people. As one woman noted:

> I would also love to see advice tailored towards where I [hold dominant identities]. Like, "You're a White person, you have a position of power. Here's how you can leverage those strengths that IQP found you to have to help others of minority backgrounds… How can you leverage the strengths we've said you have to be a better ally or co-conspirator?"

Changes such at these might both position students to succeed within the current business paradigm and empower them to shape business to become more equitable. In the words of one woman, "We're the future business leaders. Someone's got to [change the world]—and presumably it will be us." I further explore how IQP might pursue this change in Recommendation 1a.

Finding 1c: Study participation rates and quantitative survey responses provided evidence that Latinx people have a more positive experience than people who do not identify with that community.

Latinx people were overrepresented among quantitative survey respondents (17%) compared to the demographics of the MBA program (3%) and *Interpersonal Dynamics* class (5%). Both differences were significant at $p<0.05$. Moreover, Tukey's HSD post-hoc testing demonstrated that Latinx people experience greater authenticity (4.64/5.00) than people who do not identify with that community (4.15/5.00), a difference which was significant ($p\text{-adj}<0.05$).

I do not have qualitative evidence that supports these quantitative findings. One Latinx person participated in a qualitative interview. However, they described their most salient identities as race, gender, and sexual orientation, and did not speak explicitly about their experience through the lens of their Latinx identity.

Similar to Finding 1a, this is surprising. I do not have evidence that the IQP team has taken any intentional actions to create a more positive experience for Latinx people. Critical race theory holds that absent explicit effort to counteract systemic oppression, historically marginalized people will experience oppression; racism is the natural state of affairs (Bell, 1992). Therefore, I expected Latinx people to report experiencing a lack of inclusion when participating in IQP learning activities, rather than the reverse. In Recommendation 1b, I will explore how the IQP team might better understand this phenomenon, in order to replicate the conditions that are creating it with other social groups.

Findings Related to Research Question 2

Finding 2a: IQP learning activities provided all participants with the access to resources they need to grow in their leadership, although some individuals worried about the possibility of cultural biases reducing the impact of those resources.

Overwhelmingly, participants—even those with substantial critiques—found IQP learning experiences to be highly valuable for their leadership development. This is evident in both the quantitative and qualitative data.

When survey respondents were asked to rate their experience with IQP learning activities, they reported a mean score of 4.16/5.00 for equity. This indicated broad agreement that IQP provides them with the resources needed to increase leadership success. Moreover, when disaggregating data by social identity, there were no significant differences in equity according to learners' ethnicity, race, gender, sexual orientation, economic background, or future industry.[14] This is summarized in Table 11.

Table 10

ANOVA modeling differences in equity according to social identity

	SS	MS	F	P
Ethnicity	0.25	0.25	0.52	0.47
Race	0.24	0.12	0.25	0.77
Gender	0.27	0.27	0.56	0.46
Sexual orientation	1.74	0.58	1.24	0.30
Ability	3.80	1.90	4.34	0.02*
Economic background	0.04	0.04	0.09	0.77
Employment sector	7.50	0.75	1.73	0.09

$*p < 0.05$. $**p < 0.01$. $***p < 0.001$

[14] There was a significant difference in equity according to ability. As discussed in Finding 1a, post-hoc testing with Tukey's HSD located the difference in a small group of people (n=2) who prefer not to indicate their ability status and express strong dissatisfaction with IQP across the board. While statistically significant, I do not believe this is meaningful for the overall analysis of the program.

Interviewees described the IQP platform as intuitive, well-designed, and straightforward, which made it easy to access information and learn more about themselves as leaders. For example, one participant praised the ease with which she could visualize her strengths and areas for growth, which enabled her to see "where I fell short of my own perceptions and how my perceptions were different than others' perceptions of me." Moreover, it was "the first time I've ever seen personal feedback graphically depicted" which made the information stickier. The end result is that "I look at it a lot. I have to say, yes, it was very helpful." Interviewees expressed similarly positive sentiments about the contributions of other IQP learning activities to their learning, such as executive coaching ("very, very helpful for my leadership development") and related classroom learning activities ("it was class that helped me the most").

Although broadly satisfied with the learning experiences as a resource for leadership development, some participants questioned the extent to which cultural biases might produce invalid assessment results. This concern is meaningful because the assessment shapes how subjects see themselves and what areas for growth they decide to pursue; it is the foundation upon which all subsequent learning is built. If the assessments are inaccurate, then everything that follows from them—all of the learning experiences on the IQP platform, and how the data are used in class activities and the executive coaching program—will be predicated upon those inaccuracies.

For example, one international student noted that feedback varies in directness across cultures: "In France and Spain, people will be a lot more honest in their feedback than in the UK and certain Asian cultures where feedback is provided in more roundabout ways." Likewise, a different student from the United States explained how behavioral expectations vary across

cultures. Someone who is considered "a super extrovert in India might score super high on that basis" when assessed by fellow Indian people but "score lower in the US context" where the cultural baseline for extroversion is higher. Both comments demonstrated the belief that character trait scores vary according to the culture in which ratings occur, threatening the validity of the assessment results.

It is not clear to me—as a researcher—whether the specific claims made by interviewees are true, e.g., whether French people are more direct than the British, or Americans are more extroverted on average than Indian nationals. But truth-value aside, the frequency with which people expressed these concerns suggests that addressing them is crucial to ensuring that participants trust IQP and value the learning that it produces. I will explore how IQP can address concerns about cross-cultural validity in Recommendation 2a.

Finding 2b: Most participants are not yet applying IQP insights outside of classroom learning experiences because they view the program as an optional resource that competes for their time, rather than an essential lever to achieve that which matters the most

When asked to describe their experience with IQP learning activities, survey respondents reported a mean score of 3.94/5.00 for habit-formation. This indicated broad agreement that participating in IQP led them to try and then sustain new behaviors. However, it was the lowest scale score among the variables I measured, and bolsters interview findings (described below) that IQP learning experiences are not yet leading to persistent changes in students' lives. As elsewhere, there were no meaningful differences in habit-formation according to social identity. This is summarized in Table 12.[15]

[15] There was a significant difference in habit-formation according to ability. As discussed in Finding 1a, post-hoc testing with Tukey's HSD locates the difference in a small group of people (n=2) who prefer not to indicate their ability status and express strong dissatisfaction with IQP across the board. While statistically significant, I do not believe this is meaningful for the overall analysis of the program.

Table 11

ANOVA modeling differences in habit formation according to social identity

	SS	MS	F	P
Ethnicity	0.96	0.96	1.71	0.19
Race	2.52	1.26	2.28	0.11
Gender	0.11	0.11	0.19	0.67
Sexual orientation	0.32	0.11	0.19	0.91
Ability	4.52	2.26	4.30	0.02*
Economic background	0.03	0.03	0.06	0.81
Employment sector	6.27	0.62	1.12	0.36

$*p < 0.05$. $**p < 0.01$. $***p < 0.001$

Eight of the nine interviewees indicated that they have not yet applied IQP insights outside of classroom learning experiences. They described it as an optional resource that competes for their time, rather than an essential lever to achieve the goals that are most important to them. For example, multiple students in the traditional MBA program told me that they were grateful to participate in the learning experiences but did not have a way to apply them until after graduating from University of the Atlantic and beginning their next full-time role. One student in particular elaborated that he was primarily focused on networking with classmates, participating in clubs and extracurricular activities, and preparing for on-campus interviews—but did not see how developing greater empathy, grit, achievement motivation, or openness might help him to succeed at those endeavors.

Moreover, participants in the executive MBA program—who *could* directly apply IQP in the context of their workplace—often described themselves as lacking sufficient free time to explore resources, internalize learnings, and apply insights. For example, one executive MBA student noted that they "never really played around with the portal itself after the initial survey

process [concluded]" even though they knew "there's a lot more in-depth resources than just the survey" because they "didn't have the time to explore it." Another student described himself as overwhelmed with work and study. Although he viewed IQP as one of the executive MBA program highlights, and wanted to apply the insights, "I'm busy with other stuff… I'm catching up, I haven't been able to get there yet." For these executive MBA students, attending graduate school while working full-time was a stressful endeavor that left them with little excess bandwidth; they saw IQP as helpful but not immediately tied to their core goals, and deprioritized it as a result.

By contrast, the one interviewee who applied IQP insights outside of classroom activities did so precisely *because* he saw a direct connection between the learning experiences and his priorities. Roger, an executive MBA student, participated in the IQP character assessment. He then examined his results more closely in the *Interpersonal Dynamics* class, and the discussion and learning activities in that class led him to realize that he underappreciated the value of positive culture in employee satisfaction and company performance. Roger believed changing these mindsets would lead him to greater success in his full-time role, and he resolved to find an opportunity to stretch himself by adopting the role of culture leader at work. Therefore, he volunteered to co-lead a project where he would (1) conduct a landscape analysis of workplace culture and then (2) develop a plan to leverage culture as a strategy for increasing productivity, even though this was outside of his comfort zone. Or, translated into the language of Bleidorn et al.'s (2019) framework for personality change, Roger sought to try on a new personality state via engaging in novel behaviors. Participating in the project ultimately led Roger to spot a big gap in his organization: they had enterprise-wide values and mission statements, but nothing specific to or capable of uniting individual product teams. He authored those values and mission statements,

positioning himself as a cultural leader within the organization and garnering a promotion in the process.

Together, these examples suggest that the IQP team might strengthen the impact of their program by making explicit connections between engaging with the learning activities and achieving core business school goals, such as networking and learning from extracurricular activities (for full-time MBA students) or work goals (for executive MBA students). I will explore how they might approach this in Recommendation 2b.

Finding 2c: IQP participants are eager to adopt new behaviors and expect that this will translate to increased leadership success

Finally, survey respondents reported a mean score of 4.26/5.00—the highest among the five constructs—for impact, demonstrating a strong belief that engaging with the learning experiences strengthened their desired personality traits and resulted in tangible leadership growth. However, this is inconsistent with the analysis presented in Finding 2b. It strikes me as unlikely that IQP learning experiences resulted in significant leadership growth, when participants were relatively unlikely to try new behaviors, form new habits, or otherwise prioritize acting on the insights outside of class. Rather, I interpret the high impact score to indicate that participants believe IQP *will* have a positive impact for them in the future.

Some people stated this explicitly in interviews. For example, one interviewee initially told me that IQP was "super helpful" in strengthening his desired personality traits. However, when I asked him to elaborate, he revealed that "to be honest, I haven't applied any of [the learning] yet. I don't start work until September, so I'll apply it then. But I'm hopeful." Comments like this suggest that survey scores indicate intent (to act) and expected impact (when they do), rather than what has already materialized.

This finding is meaningful because it underscores the importance of repositioning IQP as central to participants achieving their priorities in the MBA program or at work. Learners are having a strong experience with IQP and believe that it will play an important role in their future. The IQP team ought to capitalize on these sentiments by creating opportunities for more participants to apply learnings in real time, rather than risk their enthusiasm will diminish after graduation. I will explore how they might approach this in Recommendation 2b.

Recommendations

IQP is housed within the University of the Atlantic, a storied institution with a substantial endowment. However, the team is charged with fundraising their own budget and it is not currently possible for them to hire additional staff, contract with external consultants, or initiate new resource-intensive strategies. This is important because there are not currently any staff on the IQP team who are specialists in EDI. That is, the team was assembled based on expertise in empirical research, analytics, product development, and program management, not employees' knowledge of systemic racism and other forms of oppression throughout history or their ability to integrate this knowledge into the design of learning experiences. This adds another layer of complexity to the problem of practice: in seeking to support IQP to design and execute learning experiences that feel inclusive and achieve equitable outcomes for diverse audiences, my recommendations must be executable by the current team.

I am eager to embrace this constraint because I believe it increases the capstone findings' external validity. Thousands of organizations are seeking to commit themselves to racial justice and EDI in the wake of America's racial reckoning, with EDI job openings surging 55% in the two months after George Floyd's murder (Maurer, 2020) and Millennial and Generation Z job seekers expecting corporations to commit to EDI in their internal and external practices (Miller,

2021). For the many organizations that are unable to reconstitute or retrain their staff, leaders must find ways to pursue EDI outcomes that are within the capabilities of the current team.

Recommendations Related to Research Question 1

Recommendation 1a: Address gender inequity in learning experiences

Women report significantly less belonging than men, due to three factors: (1) learning activities that do not consider how their gender identity shapes lived experience, (2) feeling expected to code-switch into predominantly male leadership archetypes, and (3) being positioned as unimportant or incapable by male peers. Therefore, the IQP team must evolve their offerings to address each of these root causes.

First, the research on positive representation demonstrates that students from historically marginalized communities learn more when they see people who share their identity—people who can serve as guides and role models—in the classroom and their curriculum (Hess & Leal, 1997; Ladson-Billings, 1995; & Stewart, Meier, & England, 1989). Therefore, the IQP team ought to highlight more women leaders in the formal learning resources housed within their platform and encourage professors to do the same in their aligned classroom activities. For example, the IQP team might interview a prominent female CEO about her career trajectory, the unique challenges and opportunities she has faced as a woman, and her advice for other women who seek to follow in her footsteps and upload that to the IQP platform. Similarly, Professor Yamamoto might profile more women leaders in his *Interpersonal Dynamics* class, to counterbalance the prevalence of male leaders in the MBA curriculum and classroom discussion overall.

Of course, people's personalities—their interests, perspectives, values, approaches, etc.—are the product of multiple intersecting and mutually influencing identities, all of which shape

how they experience the world (Crenshaw, 1990). Women are no exception. Therefore, it is essential that attempts to diversify the curriculum introduce true diversity, highlighting women with a wide variety of intersectional identities, which inform many different approaches to communication, decision-making, and other elements of leadership style.

Increasing women's representation in the learning activities will likely help to reduce the extent to which women feel pressure to code-switch into predominantly male leadership patterns by expanding the set of archetypes which are viewed as successful. However, positive representation will not address the slights that women are experiencing from their male colleagues, which position them as less capable and important in the classroom. This negative positioning sends the signal that women cannot expect to be treated fairly in the learning environment, which Shore at al. (2011) demonstrate is anathema to inclusion.

The antidote is implementing procedural justice: developing new policies, procedures, and approaches that increase fairness, which are explicitly rooted in the needs and opinions of the people who currently experience marginalization (Colquitt et al., 2011; Hayes, Bartle, & Major, 2022). Professors must first be more attuned to the experiences of women, noticing microaggressions, observing when women's body language or silence signals discomfort, and talking with them to learn more. As they become more aware of the challenges that women experience, professors must then choose whether to address issues proactively (e.g., setting new expectations for classroom conduct) or reactively (e.g., adjusting facilitation style), and publicly (e.g., talking with the full class) or privately (e.g., pulling individual men aside) based upon the context. It is outside the scope of this capstone project to outline a comprehensive plan to address classroom climate. However, Love (2000) provides a useful framework to guide their efforts,

outlining a four-step process for seeing inequity, understanding its impact, and taking action to address its root causes.

Recommendation 1b: Further investigate Latinx student experience

The quantitative data indicate that Latinx people experience significantly greater authenticity than people who do not identify as Latinx. However, I do not have qualitative evidence to understand why this is the case. Perhaps IQP is (unintentionally and unknowingly) taking action to provide an inclusive experience for Latinx people, which both improves their experience and makes them more interested to participate in the capstone study. Perhaps there is a selection effect at play, and Latinx people who are more likely to engage authentically no matter the barriers are disproportionately drawn to participate in IQP. Or perhaps the phenomenon is mediated by a third variable that I have not measured in this study.

Therefore, I recommend that the IQP team conduct further research to understand the experience of Latinx people. In particular, I believe they ought to conduct a second round of interviews, explicitly sampling from people who identify as belonging to the Latinx community. During those interviews, they should supplement the current protocol with an additional set of questions that ask people how Latinx identity mediates their ability to be authentic (specifically) and their experience with IQP learning activities (broadly).

After completing the interviews, the IQP team should code the transcripts and conduct two rounds of analysis. First, they ought to triangulate their new data with the findings in this capstone, in order to increase the internal and external validity of the research that has already been completed. This will ensure they have the most robust possible picture of how all people—including those who identify as Latinx—experience inclusion and equity in IQP learning experiences. Second, they should analyze the new data about how Latinx identity mediates

experience on its own, extracting an independent set of findings and recommendations. This will enable the IQP team to understand the conditions that result in a positive experience for Latinx people—and in revealing those conditions, consider how to replicate them for other demographics of learners.

Recommendations Related to Research Question 2

Recommendation 2a: Communicate candidly and transparently about cross-cultural validity

Multiple students expressed concern that cultural differences might produce invalid assessment results, as what people consider to be *normal* or *good* is relative to the culture in which they are situated. IQP must address this concern, as the character assessment provides the foundational data that informs all subsequent learning experiences.

There is cross-cultural research that justifies the importance of empathy, grit, achievement motivation, and openness. Many studies examine the experience and behavior of people with a wide variety of backgrounds within the United States. For example, Noftle and Robbins (2007) conduct four independent studies on the relationship between openness (and other Big Five personality traits) and measures of academic success, and intentionally construct samples that are diverse in race, ethnicity, gender, and age. Likewise, Eskreis-Winkler et al. (2014) examine how grit predicts success among diverse groups of Amy Special Operations Forces, students in Chicago public schools, sales representatives at a vacation ownership corporation, and married adults in communities across the United States.

The IQP team ought to explicitly communicate to participants (1) how personality traits are correlated with leadership success across cultural contexts in the United States, (2) for which cultural communities that is the case, and (3) how we know this to be true based on the research methods. This knowledge will enable learners to feel more confident in acting on IQP insights,

as they will know when the literature applies to people who share their identities or lead others in the contexts where they desire to work and live.

At the same time, CRT asserts that people are experts in their own lived experience, and therefore the only way to fully understand racial oppression is to listen to the voices of people who experience racism (Matsuda, Lawrence, Delgado, & Crenshaw, 1993). As such, I believe it is essential to listen to—rather than dismiss—the University of the Atlantic students and alumni who share that IQP character assessments do not accurately measure leadership traits in their cultures. Moreover, there is support in the literature for these sentiments: some global studies find that character assessments are not valid across all cultural contexts.[16]

The IQP team ought to communicate this information to participants too, following the same three criteria outlined above: (1) how personality traits are correlated with leadership success across multiple cultural contexts globally, (2) for which cultural communities that is the case, and (3) how we know this to be true based on the research methods. This knowledge may lead some participants *not* to act on IQP insights, because the literature does not apply to people who share their identities or lead others in the contexts where they desire to work and live. That, too, is trust-building: sharing data transparently, even when it might encourage participants to disregard IQP insights, demonstrates that the team truly has their participants' best interests at heart.

Recommendation 2b: Position IQP insights as critical for students to achieve their core goals during business school

[16] For example, Disabato, Goodman, and Kashdan (2018) construct an international sample of approximately 7,600 participants from six continents to assess the cross-cultural reliability of grit assessments. They find that grit is more predictive of successful outcomes in individualistic cultures (like America) than collectivist cultures (such as those in Latin America and Asia).

Almost every interviewee described an intent to apply IQP learnings in their work, but only one shared concrete evidence of having actually done so. This is important because the promise of IQP ultimately lies in its ability to drive real-world impact. IQP aspires for learners to become more effective business leaders and—in advancing the leadership of people from all backgrounds—to contribute to a more equitable society, where people who have been historically excluded from business leadership are able to thrive. It is a significant accomplishment that participants report a high degree of belonging and authenticity overall, with few significant gaps according to individual social identities and at the intersection of race and other social identities. But if that felt experience of inclusion does not translate to changed behaviors and increased leadership success, then IQP's impact on the world is limited.

Roger, the executive MBA student who successfully applied IQP insights to his work, provides a case study for how to create the conditions for greater real-world impact. Across the interviews, students often told me that they spent less time with the IQP learning experiences than they wanted—especially the formal activities housed on the IQP online platform—because they were stretched too thin across classes, extracurricular activities, and networking. They viewed the learning activities as separate from their core interests and obligations, and therefore a nice-to-have resource that could be deprioritized when short on time. By contrast, Roger saw a clear connection between IQP and his most important goals, and therefore chose to center IQP insights in his decision-making in a way that led to significant growth.

This suggests that the IQP team ought to introduce full-time MBA students to the platform and learning experiences during the period between matriculation (in the spring) and the beginning of classes (in the fall), when students are highly motivated and have a surfeit of

free time. Learning how to navigate the platform when opportunity cost is low will decrease the barrier to entry once classes have started, students feel harried, and opportunity cost is high.

Moreover, engaging students during the pre-MBA summer would enable the IQP team to reposition the learning activities as an essential component of the MBA experience, which will make them more effective at achieving their core goals in the MBA program: building a robust professional network and preparing for future business leadership. Developing the personality traits of empathy, openness, grit, and achievement motivation has been shown to predict successful individual and organizational outcomes in a wide variety of contexts (Collins, Hanges, & Locke, 2004; Eskreis-Winkler et al., 2014; Kellett, Humphry, & Sleeth, 2002; Noftle & Robins, 2007).

The IQP team should explain this research, and then make the case that strengthening these personality traits will lead student to achieve greater success at core elements of the business school program. For example, it seems likely to me that increasing receptivity to learning new ideas from others (openness) will yield greater learning from peers during classroom discussions.[17] Likewise, persevering through challenge (grit) is likely essential to leading impactful community projects. The IQP team could draw similar parallels between character development and extracurricular priorities, e.g., running for leadership roles in student clubs, developing trusting relationships with a diverse network of peers, etc. I believe that positioning their learning activities as indispensable to achieving students' business school objectives will enable the IQP team to significantly increase the frequency with which MBA students apply learnings in the pursuit of those objectives.

[17] Indeed, this may be particularly important for men in the MBA program, as a way of increasing their level of respect for women, in the pursuit of greater gender equity within the program. See Recommendation 1a.

Within the part-time executive MBA program, the IQP team should ask professors to implement assignments which require students to apply IQP insights to their full-time work. In this way, they can intentionally replicate the conditions that led Roger to uncommon success. It would be easy to do this in Professor Yamamoto's *Interpersonal Dynamics* class, as students are already required to create a personal action plan that codifies their takeaways from the IQP assessment and learning experiences. My recommendation only requires extending that project, so that students are required to act (not only plan to act) and focusing that action on their workplace.

However, it is not enough to only add this assignment to the *Interpersonal Dynamics* class. Research in psychology demonstrates that personality change comes as the result of repeatedly adopting a new personality state, until that state crystallizes into a new baseline (Bleidorn et al., 2019). This is consistent with the literature in cognitive science, which finds that repeated learning events distributed over a long period of time are far more effective than events which occur one-off or in short succession (Ausubel and Youssef, 1965; Cepeda et al., 2006; Hintzman, 1974; Moulton et al., 2006; Rohrer & Taylor, 2006; & Vlach, Sandhofer, & Kornell, 2008). This suggests that IQP will find the greatest success when many professors—ideally both within and across program years—implement assignments that explicitly require executive MBA students to apply IQP insights to try new behaviors in the workplace.

Discussion

Limitations

I had originally planned to administer the quantitative survey to a random sample of all University of the Atlantic students and alumni who have had the opportunity to participate in IQP. Following Slovin's formula, when the population is multiple thousands, a relatively small

sample—on the order of a few hundred respondents—is sufficient to achieve a confidence interval of ninety-five percent or greater. However, this approach was disallowed by the institution, and my recourse was to sample students and alumni of Professor Yamamoto's *Interpersonal Dynamics* class instead. Professor Yamamoto's class is not perfectly representative of the broader student population: a significantly smaller proportion of the class identifies as Black than the MBA program overall, while a significantly larger proportion of the class identifies as Asian than the executive MBA program overall. This introduces risk of external invalidity, as my capstone findings may not generalize to the broader student population. I sought out to identify, understand, and address EDI gaps among learners with historically marginalized identities; accurately understanding how experience varies according to racial identity is crucial to this endeavor.

The potential impact of this external invalidity is compounded by the fact that qualitative interviews were selected from respondents to the quantitative survey, rather than sampled independently. Again, this was a necessary compromise born from the fact that I was prohibited from broad-scale research on the student body. However, it resulted in the severe underrepresentation of Black perspective in the study, as not a single Black person participated in a qualitative interview. Moreover, asking quantitative survey respondents to opt into qualitative interviews may select for those people who are the most passionate—whether they are intensely satisfied or intensely dissatisfied—resulting in a bimodal distribution of inputs. This also threatens external invalidity, as there may be important elements of the participant experience which are not represented in the capstone analysis.

This underrepresentation must be kept in mind when reviewing my findings and recommendations. The findings are explicitly relevant to the community of Asian and White

people who participated in IQP, as well as people of all races who identify as Latinx. Therefore, before implementing any sweeping changes to the program, I would encourage the IQP team to collect and analyze additional data, to expand the sample set and validate whether the initial findings hold true for learners who identify as Black—both to understand the experience of Black students and alumni with respect to their racial identity, and to determine whether Black intersectional identities (e.g., Black women, Black people from a low income background, Black disabled people, etc.) change the findings for other dimensions of social identity.

Conclusion

IQP aims to support leaders from all backgrounds to strengthen the personality traits associated with long-term success, beginning with current University of the Atlantic MBA students. This mission entails significant challenges and opportunities. It is a daunting task to create products that feel welcoming to all participants—and which provide them with the access, resources, and opportunities they need to succeed—when learners' needs vary greatly according to cultural background, social identity, and prior experiences. However, the opportunity created by taking on the charge is vast. By supporting people with historically marginalized identities to grow, IQP has the potential to contribute to a more equitable society—one where people from all backgrounds have equal opportunity to participate in organizational leadership.

I designed a mixed methods study to evaluate the extent to which IQP participants experience learning activities as inclusive and equitable, as well as how these experiences vary according to social identity. I surveyed current students and alumni of Professor Evan Yamamoto's *Interpersonal Dynamics* class to gather quantitative data at scale, and then conducted qualitative interviews to better understand their experience in depth. These instruments revealed that IQP participants experience a high degree of belonging and

authenticity across social identities. Even though IQP did not intentionally center EDI in the design of their assessments, learning activities, or data visualization platform, their products are inherently customized to each learner's needs. As a result, participants reported feeling seen and valued for who they are, which resulted in a high degree of inclusion.

Examining the variation that underlies the average, I found two notable subgroup trends. First, women experienced significantly less inclusion than men due to lack of representation in the curriculum, pressure to code-switch into predominantly male leadership archetypes, and negative interactions with male peers. Therefore, I recommended that the IQP team increase the representation of women in their learning experiences and train faculty to notice and intervene when women experience microaggressions or overt oppression from male peers in the classroom. Second, Latinx learners had a more positive experience than people who did not identify with that community. I did not find qualitative evidence indicating why this might be the case, and therefore recommended that the IQP team conduct further research to identify the conditions leading this to occur and how to replicate them with other populations.

Participants across social identities reported that the learning experiences provide the access, resources, and opportunities they need to succeed. However, some participants worried about cultural bias in the learning experiences, as what people consider to be *normal* or *good* is relative to the culture in which they are situated. Therefore, I recommended that the IQP team proactively and transparently share with participants when the research is valid across cultures and when it is not. Finally, despite strong beliefs about the effectiveness of the learning experiences, participants are not consistently applying IQP insights outside of the classroom environment. They viewed the program as an optional resource which competed for their time, rather than an essential lever to achieve their most important goals. Therefore, I recommended

that the IQP team reposition the program as an integral component of the MBA experience by introducing it earlier, explicitly teaching full-time MBA students how to apply IQP insights to achieve their most important program goals (e.g., networking), and creating more opportunities for executive MBA students to apply IQP insights in the workplace via classroom assignments.

Areas for further research

I believe this capstone provides a strong foundation for the IQP team to better understand the strengths and areas for growth in their program, according to participants' social identities. However, it is certainly only a starting point. Further research is necessary along three dimensions. First, the IQP team ought to collect and analyze additional data—expanding the sample size and constructing the sample frame using probability-based methods—in order to validate my initial findings. Second, while doing this, they ought to pay particular attention to the responses from Black and Latinx learners. The former group was severely underrepresented in both the survey and interviews, and I do not have sufficient data to feel confident that my findings reflect their experience. The latter was overrepresented among survey respondents and reported significantly greater authenticity; however, my interviews did not uncover why this was the case. In both instances, more investigation is necessary to fully understand their experience.

These moves will enable the IQP team to build a more accurate understanding of how participants experience the learning experience at the present moment. However, the team is also on the precipice of implementing my capstone recommendations, which (I hope) will meaningfully change learners' experience with the program and the success they achieve. Therefore, third, the IQP team ought to extend my methods by periodically readministering the survey and interviewing a new sample of learners, in order to create a predictable and virtuous cycle of gathering data, analyzing it, implementing interventions, and studying their effects. It is

my sincerest hope that this capstone project both helps the IQP team to improve inclusion and equity in the moment *and* equips them with the methods and tools to iteratively improve EDI outcomes long into the future.

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Appendix A: Recruitment & Framing

Email Letter

Initial outreach from Professor Yamamoto to University of the Atlantic students who have enrolled in Interpersonal Dynamics *in 2019, 2020, and 2021.*

Dear [Name],

I'm writing my [semester] [year] students with an unusual request. Would you be willing to complete a short survey about your experience with our IQP assessments?

Your opinion will improve the experience of future University of the Atlantic students. We have partnered with an outside researcher to evaluate how inclusively and equitably we are treating our students. I've personally seen how important belonging is to our student body and want to have a positive impact on that.

To take the survey (<10 minutes) follow this link: [link]

Thank you for your consideration! I know you are super busy and I hate to even ask, but I believe in the cause. And the participation rate in this kind of research matters a lot.

Very much hope 2022 is treating you well.

Evan

Opening the survey brings students to the following page about informed consent:

Darin Lim Yankowitz, a doctoral student at Vanderbilt University, is conducting a capstone project on the extent to which participants in IQP experience an inclusive and equitable learning environment. As a current or former MBA student at the University of the Atlantic, you have been invited to participate in IQP during your tenure here and we hope to learn from your experiences—even if you did not participate—in order to improve the quality of IQP's offerings.

Your participation in this study is completely voluntary and your responses will be kept confidential. Participation or non-participation will not impact your relationship with IQP or the University of the Atlantic. Agreeing to participate in this survey serves as informed consent to participate in the study and confirmation that you are at least 18 years of age.
If you have any questions about this project, please contact the principal investigator, Darin Lim Yankowitz (darin.s.lim.yankowitz@vanderbilt.edu), or his faculty advisor, Dr. Sayil Camacho (sayil.camacho@vanderbilt.edu). If you have any questions about your rights as a project

participant, please contact the Vanderbilt institutional review board (IRB) at 615-332-2918. Please print or save a copy of this page for your records.

There are two buttons at the bottom of the screen:

- [I am 18 years of age and agree to participate] *takes people to the survey questions*
- [I do not agree to participate] *redirects people to the University of the Atlantic homepage*

Appendix B: Quantitative Survey

Demographic Data

Questions and response options

1. Do you identify as a member of the Chicano, Hispanic, Latino/a, or Latinx community?
    a. Yes
    b. No
    c. I identify as [write-in]
    d. I prefer not to answer
2. How do you describe your race? Please select all that apply. [multi-select, with dropdowns for country of origin]
    a. American Indian or Alaska Native
    b. Asian or Asian American
    c. Black or African American
    d. Native Hawaiian or Pacific Islander
    e. White
    f. I identify as [write-in]
    g. I prefer not to answer
3. How do you believe your race and/or ethnicity is most often perceived by others?
    a. American Indian or Alaska Native
    b. Asian or Asian American
    c. Black or African American
    d. Latino/a
    e. Native Hawaiian or Pacific Islander
    f. White
    g. I tend to be perceived ambiguously
    h. I tend to be perceived as [write-in]
    i. I prefer not to answer
4. How do you currently describe your gender identity?
    a. Female
    b. Male
    c. Non-binary
    d. I identify as [write-in]
    e. I prefer not to answer
5. Do you identify as transgender?
    a. Yes
    b. No
    c. I identify as [write-in]
    d. I prefer not to answer
6. How do you describe your sexual orientation?
    a. Asexual
    b. Bisexual
    c. Gay or lesbian
    d. Heterosexual
    e. Queer

f. I identify as [write-in]
g. I prefer not to answer

7. Do you have a disability?
    a. Yes, I have a disability (or previously had a disability)
    b. No, I do not have a disability
    c. I prefer not to answer
8. Do you identify as growing up in poverty or coming from a low-income background?
    a. Yes
    b. No
    c. I identify as [write-in]
    d. I prefer not to answer
9. What is the industry you plan to work in after the University of the Atlantic?
    a. Consulting
    b. Consumer Products
    c. Energy
    d. Financial Services – Hedge Funds/Other Investments
    e. Financial Services – Insurance & Diversified Services
    f. Financial Services – Investment Banking/Brokerage
    g. Financial Services – Investment Management
    h. Financial Services – Private Equity/Buyouts/Other
    i. Financial Services – Venture Capital
    j. FinTech
    k. Future Mobility
    l. Healthcare
    m. Legal & Professional Services
    n. Manufacturing
    o. Media, Entertainment, & Sports
    p. Real Estate
    q. Retail
    r. Social Impact
    s. Technology
    t. Other: [write-in]
    u. I prefer not to answer

Alignment

- **Project questions**: N/A
- **Literature**: federal guidelines on demographic data collection
- **Conceptual framework**: race (and other identities) are social constructs that may change over time

Inclusion

Framing

As part of your University of the Atlantic MBA, you were offered the opportunity to participate in the Institute of Quantitative Psychology (IQP)'s assessment platform and learning ecosystem designed to help you strengthen personality traits.

Questions

1. Did you participate in learning experiences through the IQP platform?
    a. Yes
    b. No

Questions 2-4 are conditional based on the answer to question 1.

2. *If respondents answered 1a ("Yes").* Why did you choose to participate? Please select all that apply. [multi-select]
    a. It was part of my executive coaching
    b. It was required in Professor Yamamoto's *Interpersonal Dynamics* class
    c. Academic Advising told me to participate during pre-term
    d. Other students were participating
    e. To help me reflect, learn, and grow
    f. Other: [write-in]

3. *If respondents answered 1b ("No").* Why did you choose not to participate? Please select all that apply. [multi-select]
    a. Taking the assessment was too time-consuming
    b. I did not feel comfortable asking people for feedback
    c. I could not access the IQP platform
    d. I was not aware of the opportunity
    e. Other: [write-in]

If respondents did not participate in IQP, end survey. Otherwise, continue.

4. Which learning experiences did you participate in? Please select all that apply. [multi-select]
    a. Exercises and interventions on the IQP platform
    b. Reading articles and popular press on the IQP platform
    c. Listening to podcasts on the IQP platform
    d. Watching videos on the IQP platform
    e. Executive coaching
    f. Peer coaching
    g. Self-guided personal development
    h. Other: [write-in]

Thinking about how you felt during these learning experiences, to what extent do you agree with the following statements?

Belonging

5. The learning experiences gave me the feeling that I belong

6. The learning experiences gave me the feeling that I am part of the group
7. The learning experiences gave me the feeling that I fit in
8. The learning experiences treated me as an insider
9. People in the learning experiences liked me
10. People in the learning experiences appreciated me
11. People in the learning experiences were pleased with me
12. People in the learning experiences cared about me

Authenticity

13. The learning experiences allowed me to be authentic
14. The learning experiences allowed me to be who I am
15. The learning experiences allowed me to express my authentic self
16. The learning experiences allowed me to present myself the way I am
17. The learning experiences encouraged me to be authentic
18. The learning experiences encouraged me to be who I am
19. The learning experiences encouraged me to express my authentic self
20. The learning experiences encouraged me to present myself the way I am

For respondents who selected multiple learning experiences:

21. Given that you had the opportunity to participate in multiple learning experiences, is there anything you want to share about those learning experiences? [optional free response]

Response options

For each prompt in questions 5-20, respondents will rate the extent to which they agree or disagree on a Likert scale:

1. Strongly disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly agree

Respondents may additionally choose N/A, indicating that the statement does not apply to the learning experiences that they participated in.

Alignment

- **Project questions**: RQ1
- **Literature**: inclusion is the product of belonging and authenticity, and exists when there are no differences according to social identity
- **Conceptual framework**: intersectional analysis

Equity

Framing

As part of your work with IQP, you participated in learning experiences designed to help you strengthen personality traits (e.g., reading podcasts, working with executive coaches, etc.).

Questions
Thinking about how you felt during these learning experiences, to what extent do you agree with the following statements?

1. I received enough support to understand and make sense of my assessment results
2. The learning experiences provided me with access to people who helped me to strengthen my desired personality traits
3. The learning experiences provided me with resources that helped to strengthen my desired personality traits
4. The learning experiences provided me with opportunities that helped to strengthen my desired personality traits
5. The learning experiences led me to try new behaviors
6. The learning experiences led me to form new habits
7. As a result of participating in the learning experiences, I strengthened my desired personality traits
8. The learning experiences were ultimately effective at helping me to grow as a leader

For respondents who selected multiple learning experiences:

9. Given that you had the opportunity to participate in multiple learning experiences, is there anything you want to share about differences among those learning experiences? [optional free response]

Response options
For each prompt in questions 1-8, respondents will rate the extent to which they agree or disagree on a Likert scale:

1. Strongly disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly agree

Respondents may additionally choose N/A, indicating that the statement does not apply to the learning experiences that they participated in.

Alignment

- **Project questions**: RQ2
- **Literature**: equity occurs when people have the access, resources, and opportunities they need. In the case of personality change, this results in short-term changes to behavior, which solidify into long-term habits and yield equally successful outcomes for people of all social identities.
- **Conceptual framework**: intersectional analysis

Closing

Question and response options

1. As part of this study, we would like to interview people to better understand their perspective. Would you be willing to participate in an individual interview or focus group about your experience?

   Please note, this project wants to elevate the experiences of historically excluded populations. Information gathered through individual interviews and focus groups will support advance our understanding of your experience.
   a. Yes, please
   b. No, thank you

For people who answered 1a ("Yes")

2. Would you prefer to share your perspective in a(n)
   a. Individual interview
   b. Focus group
3. The best way to get in touch is [select]
   a. Email: [write-in]
   b. Other: [write-in]

Alignment

- **Project questions**: RQ1, RQ2
- **Literature**: N/A
- **Conceptual framework**: marginalized people are experts in their own oppression and their voices must shape how their stories are told

Appendix C: Participant Interview Script

Framing

Thank you for agreeing to participate in this interview. I'm eager to learn from your perspective and experience. First, I want to make sure you have all the information you need about this conversation:

- My name is Darin and I'm a doctoral student at Vanderbilt, working with the Institute of Quantitative Psychology (IQP) to help ensure their learning experiences create an environment that feels welcoming and safe, and supports people from all backgrounds to learn and grow. In doing this, we aspire for IQP to help create a more diverse pipeline of people into organizational leadership at all levels. With that in mind, I'm really interested to better understand how *you* have experienced IQP.
- Do you have any questions about that? Otherwise, I'll proceed to explain the format of the interview.

I'd like to outline how we'll spend this time so that you know what to expect:

- This interview should take approximately 45 minutes.
- I'll keep everything that you say confidential. That means that anything you share with me will not be associated with you. However, I will look for themes that emerge from interviews and share takeaways with the IQP team along with anonymous quotations to illustrate important points.
- I hope that puts you at ease to speak candidly.

To assist with notetaking, it would be helpful to record this interview. Is that OK with you? If you'd prefer that I don't record, I'll type notes as we talk instead.

Demographic Data

Before we jump into specific questions about IQP, I'd love to learn a little bit about you. What's your experience been like at the University of the Atlantic so far?

When you think about all of the identities that you hold, which do you think matter the most in IQP learning experiences?

Potential probing questions:

- *If interviewee asks for clarification:* For example, when I was a master's candidate at Columbia, I was highly aware that I was the only Asian American in my class; that identity felt particularly important to me as a result. When you think about your experience with IQP, which identities are the most important to you? Why?
- *If interviewee does not share their racial or ethnic identity, ask:* What about race or ethnicity? How does that relate to your experience with IQP?

Alignment

- **Project questions**: N/A
- **Literature**: federal guidelines on demographic data collection
- **Conceptual framework**: race (and other identities) are social constructs that may change over time

Overall

As part of your work with IQP, you have participated in learning experiences designed to help you strengthen personality traits (e.g., reading articles, listening to podcasts, working with an executive coach, etc.). Overall, what has been your experience with that learning?

In thinking back to what you said earlier about identity [*elaborate*: such as X being particularly important to you], how does that inform your experience with IQP learning experiences?

Potential probing questions:

- Can you say more about why you felt that way?
- I'd like to play that back to ensure I'm interpreting it correctly. I'm hearing you say X, Y, and Z. Is that right? Is there anything I'm leaving out?

Inclusion

The intent of IQP is to support students to measure and strengthen the characteristics that are correlated with long-term success. Part of the promise of this work lies in supporting *all* types of leaders to grow their personality traits. Do you feel like the learning experiences you participated were welcoming and enabled you to show up as your authentic self?

Potential probing questions:

- To what extent did you see yourself in the learning experiences?
- To what extent did you feel like the learning experiences valued your life experiences?
- To what extent do you think opportunities were distributed to students fairly?

Alignment

- **Project questions**: RQ1
- **Literature**: people experience learning as inclusive based on organizational demography, positive representation, and fairness
- **Conceptual framework**: marginalized people are experts in their own oppression and their voices must shape how their stories are told; intersectional analysis

Equity

As you know, the overarching purpose of IQP is to support you to strengthen your desired personality traits. How successfully did the learning experiences enable you to reach your growth goals? Why?

Potential probing questions:

- Did the learning experiences provide you with access to people who would support your growth?
- Did the learning experiences provide you with resources to support your growth?
- Did the learning experience open up new opportunities for you that led to growth?
- In what contexts did you try new behaviors? Why?

During the course of learning, to what extent did the learning experiences make you aware of your identity?

Potential probing questions:

- Were there any moments that you felt like you stood out in a positive or negative way? Why?
- *Additional, context-specific follow-up questions to understand how these experiences relate to individual and combinations of social identities, especially historically marginalized identities*

Alignment

- **Project questions**: RQ2
- **Literature**: equity occurs when people have access, resources, and opportunities they need, which yields equally successful outcomes for people of all social identities. Learning experiences advance equity when they position all types of people to be successful. In order for this to occur, learning experiences must not trigger stereotype threat.
- **Conceptual framework**: marginalized people are experts in their own oppression and their voices must shape how their stories are told; intersectional analysis

Recommendations and closing

So far, I've asked you a lot of questions about your experience as a learner. Now, I'd love to know how you would approach IQP if you were put in charge of the platform. What would you prioritize to make learning experiences more inclusive and equitable?

Potential probing questions:

- What recommendations would you make to create a learning environment that felt welcoming and enabled you to show up as your true self?
- What recommendations would you have for IQP as they think about supporting increasingly diverse populations?

That concludes my substantive interview questions for you. Thank you again for your time. I know you have a lot going on and many competing priorities, and I appreciate the opportunity to learn from you.

There are just two other things I'd like to ask you in closing. First: when I finish the analysis, would you be like for me to follow-up with you to share my preliminary findings?

Second: I've asked you a lot of questions today. Before we go, do you have any questions for me?

Alignment

- **Project questions**: RQ1, RQ2
- **Literature**: N/A
- **Conceptual framework**: marginalized people are experts in their own oppression and their voices must shape how their stories are told; intersectional analysis

Appendix D: Data Collection Timeline

Table 12

Timeline for collecting and analyzing qualitative and quantitative data

Method	Approx. date	Activity	Notes
All	February 22, 2022	Email University of the Atlantic MBA students and alumni to introduce capstone	After winter break concludes
Survey	February 22, 2022	Survey window opens	
Survey	March 7, 2022	Email reminder to non-responders	Two days before window close
Survey	March 9, 2022	Survey window closes	
Interviews	March 1 – March 31, 2022	Conduct interviews	Respondents who indicate a desire to participant in interviews are sent a Calendly link on a rolling basis, beginning March 1 No interviews during March 3-13 (spring break). Interviews must end by the beginning of April.
Interviews	Rolling	Email reminder to non-responders	Five days after receiving the Calendly link, if they have not yet scheduled an interview
All	April 1 – April 15, 2022	Conduct initial, high-level analysis of survey responses and interviews; conduct follow-	While waiting for interview signups

		up analysis of the IQP dataset based upon headlines that emerge
All	April 15 – April 30, 2022	Share initial quantitative and qualitative headlines with survey respondents who opted into further engagement in shaping the narrative

Appendix E: Qualitative Interview Codebook

Table 13

Codebook for qualitative interviews

Code	Definition	Origin	Importance	Example
	Description of the code	How the code became part of the study	Why the code matters to the study	
Systemic oppression	Marginalization of specific groups supported and enforced by society	Deductive – conceptual framework	Core element of CRT	Lack of resources invested in BIPOC communities
Intersectionality	Relationship among multiple dimensions of identity	Deductive – conceptual framework	Core element of CRT	Sharing an experience grounded in multiple simultaneous identities
Learning activity	Experience that fosters learning	Inductive – theme emerged from interviews	Mechanism by which IQP drives impact	IQP survey, visualization platform, related activities inside and outside of class, etc.
Belonging	Feeling valued for individual characteristics	Deductive – literature review	Dimension of inclusion	Expressing feeling of connection to others

Authenticity	Being allowed or encouraged to display one's true self	Deductive – literature review	Dimension of inclusion	Revealing true beliefs or feelings
Tailoring	Sentiments about personalized results or support	Inductive – theme emerged from interviews	Mediates belonging	Personalization of IQP resources
Patriarchy	Dominance of men over women	Inductive – theme emerged from interviews	Mediates belonging	Male leadership archetypes impressed upon women
Positive representation	Presenting specific identities in a favorable light	Deductive – literature review	Mediates inclusion	Highlighting minority leaders in curriculum
Access to resources	Having access to the resources necessary to succeed	Deductive – literature review	Dimension of equity	Drawing connection between IQP and leadership success
Actionable insight	Insights which inform decisions or actions	Inductive – theme emerged from interviews	Mediates impact	Acting on IQP learning
Habit-formation	Developing new patterns of behavior	Deductive – literature review	Mediates impact	Repeatedly trying new actions

Appendix F: Participant Demographics

Table 14

Demographics among respondents to quantitative survey

Variable	Dimension	Percentage
Ethnicity	Latinx	12%
	Not belonging to Latinx community	88%
Race	Asian	40%
	Black	2%
	Native American or Alaska Native	<1%
	Pacific Islander	0%
	White	56%
	Prefer not to answer	2%
Gender	Female	43%
	Male	57%
	Non-binary	0%
	Transgender	0%
Sexual orientation	Bisexual	3%
	Gay or Lesbian	2%
	Heterosexual	94%
	Prefer not to answer	2%
Ability	Currently or formerly disabled	5%
	Able-bodied	93%
	Prefer not to answer	2%
Economic background	Low-income	8%
	Not from low-income background	90%
	Prefer not to answer	2%

Appendix G: Statistics on Belonging and Authenticity

Table 15

ANOVA modeling differences in belonging according to social identity

	Sum of Squares (SS)	Mean Squares (MS)	F-statistic (F)	P-value (P)
Ethnicity	0.08	0.08	0.22	0.64
Race	0.41	0.14	0.36	0.78
Gender	1.89	1.89	5.30	0.02*
Sexual orientation	1.03	0.34	0.92	0.44
Ability	5.18	2.59	7.95	0.0006***
Economic background	0.84	0.42	1.13	0.33
Employment sector	4.27	0.42	1.17	0.33

**p < 0.05. **p < 0.01. ***p < 0.001*[18]

Table 16

ANOVA modeling differences in authenticity according to social identity

	SS	MS	F	P
Ethnicity	1.97	1.97	6.66	0.01*
Race	1.18	0.30	0.94	0.44
Gender	0.15	0.14	0.46	0.50
Sexual orientation	0.35	0.12	0.37	0.78
Ability	1.53	0.76	2.51	0.09
Economic background	0.20	0.10	0.32	0.73
Employment sector	3.74	0.34	1.09	0.38

**p < 0.05. **p < 0.01. ***p < 0.001*

[18] For both Table 15 and Table 16, I considered applying a Bonferroni correction to account for the number of comparisons being performed. However, I decided not to lower alpha because this is exploratory research. I believe a Bonferroni correction would be too conservative, considering that the intent of the analysis is to surface initial lines of inquiry to investigate further. See, for example, the *Limitations* and *Areas for Further Research* sub-sections of the Discussion.