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The Undergraduate in the "New Urban University": Recognizing the Role of Agency and its Correlates in the Student's Academic Life Story

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NATIONAL LOUIS UNIVERSITY

THE UNDERGRADUATE IN THE "NEW URBAN UNIVERSITY":

RECOGNIZING THE ROLE OF AGENCY AND ITS CORRELATES AS A GROWTH

CONTINUUM WITHIN THE STUDENT'S ACADEMIC LIFE STORY

COMMUNITY PSYCHOLOGY DOCTORAL PROGRAM

IN THE COLLEGE OF PROFESSIONAL STUDIES AND ADVANCEMENT

A DISSERTATION SUBMITTED TO

THE GRADUATE SCHOOL IN PARTIAL FULFILLMENT OF

THE REQUIRMENTS FOR THE DEGREE

DOCTOR OF PHILOSOPHY

COMMUNITY PSYCHOLOGY DOCTORAL PROGRAM
IN THE COLLEGE OF ARTS AND SCIENCES

BY

KAREN J. GALEA 2017

Chicago, Illinois

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Community Psychology Doctoral Program

Dissertation Notification of Completion

Doctoral Candidate: Karen J. Galea

Title of Dissertation: The Undergraduate in the "New Urban University": Recognizing the Role of Agency and its Correlates in the Student's Academic Life Story

Dissertation Chair: Bradley Olson, PhD

Dissertation Committee: Ignacio Lopez, EdD
Judah Viola, PhD

Date of Final Defense Meeting: April 27, 2017

The above named candidate has satisfactorily completed a dissertation as required for attaining the Doctor of Philosophy degree in the Community Psychology Doctoral Program.

Signature   Date

Bradley P. Olson, PhD   April 27, 2017

Ignacio Lopez   April 27, 2017

Judah Viola   April 27, 2017

Dedication

This research project is dedicated to all those who have felt left or pushed out of the education system. If a college education is what you want, go get it! There will always be someone along the way to support you. There will always be an environment that you can call home. There will always be knowledge to gain and people who will influence you and change your life forever. Do not give up.

Acknowledgements

Deepest gratitude goes to those who supported and encouraged me, and who most of all, remained patient with my crazy schedule. As a mom, daughter, wife, sister, colleague, and friend this process impacted many people who surrounded me. I know I would never have succeeded without the constant positive energy and encouragement from everyone.

Brad, my advisor, colleague, and friend: Your guidance and knowledge during this process has been phenomenal. You are brilliant, and I am truly grateful to know you and have had this opportunity to study alongside you. Thank you.

Mom and Dad: My counsel. Mom, you were nervous for me for all the right reasons—taking too much on and becoming overstressed and sick. But your caring and constant love made sure my needs, and those of your grandsons, were always attended to. Dad, your support never wavered from day one. You have always supported the pursuit of higher education and never question its value. Thank you both for believing in me and providing just the right dosage of encouragement and advice I needed to succeed.

My husband, Márcio: You have been my advisor, my cheerleader, and my anchor. Thanks for always telling me to "go get it." Thank you for running with the crazy schedule and always being there for the boys.

My son, Julian: You were nine when I started this path and now you are twelve. I thought of you often as I worked on this project because in so many ways I saw you and heard you in the young college students I interviewed. It will not be long before you are in college navigating a system that I know you will expertly own.

My son, Gio: You were six when I started this path and now you are nine. You have been incredibly patient when so many late nights you wanted my time and I could not give it to you. Thank you for understanding and tolerating compromises, I know it has not been easy on you but somehow you seem to accept that mom needed to stay focused.

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Kate and Mark, my friends: I am pretty sure you were the very first people that planted the "PhD seed." Today, I thank you! You were right, it is worth it in the end.

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Abstract

According to the U.S. Department of Education (2016), only 36% of first time college students enrolled at broad-access institutions graduate within six years, compared to 60% at all universities. The vital role of academic agency is universally accepted; however, debate remains over a shared definition. The purpose of this study is to determine which combination of non-academic attributes generate, grow, and support academic agency for undergraduate students at a broad-access, minority-serving "New Urban University." Three questions are examined:

1. Which attributes define academic agency, and how do they relate to conceptually similar variables?

2. Assuming academic agency exists along a continuum over time, is growth affected by age, pivotal life experiences, or both?

3. What role can institutions of higher learning play in creating pivotal life experiences to foster growth of students' academic agency?

This research study utilizes a mixed-methods design divided into: Study 1, a quantitative examination, and Study 2, a qualitative methodology based on the life story method. In Study 1, a survey examining grit, self-efficacy, ethnic identity, leadership, fair academic opportunity, academic self-appraisal, and family support was administered to 63 undergraduate students. A new domain emerged for academic agency comprised of leadership, academic familiarity, and fair academic opportunity. All domains, except for ethnic identity, demonstrated significant increases in age, suggesting emergence of a continuum of growth for academic agency and other non-academic attributes. Study 2, using a qualitative design with 12 undergraduates, is guided by McAdams' (2001) life story model of identity adapted for the context of education.

The Undergraduate in the "New Urban University": Recognizing the Role of Agency and its

Correlates in the Student's Academic Life Story

Cognitive measurements used to forecast college success such as school rank, grade point average (GPA), and standardized test scores have been the gold-standard in the American education system for over a century (Valentine, 1987). These measures have been shown to have strong reliability and, to a lesser extent, useful validity for the traditional college population (i.e. white, middle- to upper-middle class males). Yet, there have been strong arguments that these indicators do not adequately assess the likelihood of college success (defined here as grades, retention, or graduation) for more diverse populations (defined here as students of color, first generation college-goers, and non-traditionally-aged students) who often attend universities that embrace "access" (Sommerfield, 2011).

Standardized measures have been criticized for inadequately assessing students who are at risk of dropping out or adequately predicting diverse students' readiness for college (Sedlacek, 1993). These traditional cognitive measures have oftentimes resulted in either false negatives (underestimating a student's ability) or over-predicting performance (Young & Koplow, 1997). A growing body of research suggests that so-called "non-cognitive" characteristics are as important as cognitive ones in predicting postsecondary success (Stecher & Hamilton, 2014) or in designing interventions that can help such students succeed.

Tests such as the Scholastic Aptitude Test (SAT) were developed with the intention of bringing about more equitable decisions (Sedlacek, 2004), with the belief that if the tests are fine-tuned enough for good reliability they would be fair predictors for everyone (Sedlacek, 2005). Yet, there is great likelihood that different groups have different experiences, and their own unique way of demonstrating their attributes and abilities. One significant, unintended

outcome of the SAT and other standardized tests is that they ignore the complex variability in human nature (Sedlacek, 2003; 2004). These tests essentially fail to appreciate or recognize the richness of academic aptitude existing in non-mainstream cultures as the exam itself is contextually favorable to the white, middle-class experience (Rappaport, 1977). Therefore, developing one test or one measure for everyone does not necessarily result in more equal and valid assessments of all people (Sedlacek, 2005).

The quest for more comprehensive measures of human ability is not new. While there are many questions about ethics, values, relevance, and cultural sensitivity, it is important to look at the historical attempt to comprehend "ability" even if the primary goal is to understand "potential," and to encourage and foster potential. These historical attempts have included an emphasis beyond the cognitive and into attitudinal, motivational, emotional, social, and behavioral aspects that may contribute to a student's success. One can call these latter factors "agency," although such individual agency is only relevant among the broader "communal" or "environmental" aspects that also impact student lives.

Historically, American psychologist David Wechsler (1896-1981), of the pre-eminent Wechsler intelligence scales, stated that intelligence cannot be fully measured until it includes "some measures of the non-intellective factors." He urged colleagues to construct a "global intelligence scale" (Wechsler, 1943) that goes beyond cognitive abilities.

Likewise, Sternberg (1985) suggested a broader, "triarchic" theory of human intelligence, where intelligence is viewed as a triad. First, with *analytical intelligence,* information is interpreted in a well-defined and unchanging context, such as GPA and standardized tests. Second, *experiential intelligence,* involves the ability to interpret information in changing, real-world contexts. Finally, contextual intelligence considers the ability to adapt to changing

environments. Still others, like Garner (1989), argued for conceptualizations of intelligence that were even more multi-faceted, where each human being is capable of multiple, diverse, and relatively independent forms of intelligences. One example includes social and emotional intelligence, which has also been touted as a model that broadens our conception beyond cognitive abilities.

These definitions and classifications of intelligence require a reevaluation of the goals of determining—even more than "ability" —"fit," "potential," and the need for particular "motivation" and "support." The term "non-cognitive" (e.g., agency and communal) factors has grown in popularity. Here, "agency" rather than "non-cognitive" will be the chosen nomenclature, which reflects a particular "fit," within a particular context, and requires communal access, support, and the understanding of guidance of how to leverage personal experiences to grow. How do we better understand the utility of traditional survey instruments designed to measure students' cognitive knowledge of mainstream cultural values and understanding, while simultaneously taking agency into account? Instead of emphasizing who will succeed, and to what extent, based on a test score, how can we measure the factors that will help any or most students flourish, given the right settings and environmental factors? How do we validate and promote the diverse educational values students arrive with at college, and support them in demonstrating that these personal values and beliefs are assets?

It is necessary to examine the relevance of cognitive compared to agency-related factors; the definition (combination of variables that constitute) of agency; and its construct, convergent, and discriminant validity, particularly for traditionally underserved and ethnically diverse students. Agency remains imprecisely undefined, or rather, comprised of a collection of various attributes that reflect non-cognitive, non-academic or non-intellective "potential" or "readiness."

If the construct of agency was more clearly defined and viewed in stages or along a trajectory of growth, and examined in combination with other attributes, then perhaps educators, counselors, coaches, and advisors would be better equipped to provide targeted support where students need it most. From a psychometric perspective, this is the process of construct validity (Cronbach & Meehl, 1955). If a set of attributes were defined as agency, and each recognized with their own growth potential, as well as their growth potential or effect in relation to other attributes (i.e. growth in one area will signal growth in another area), those working with students could better map, predict, and enhance the growth trajectory along this agency-based continuum.

Determining a student's agency can be done by administering a survey addressing key attributes. Such a process can be strengthened if done in conjunction with obtaining narrative information about the student's past, in order to elicit rich, personal stories from childhood that operationalize examples of agency and other important attributes. A primary goal would be to take students' educational narratives and help them deconstruct their past moments and experiences, both negative experiences they have risen above, and those that still haunt them. McAdams (2001) found through using life story interviews of 269 adults that people construct their past through stories, and the trajectory of these stories are most commonly characterized as "redemptive," when bad things happen but the person finds peace and ultimately grows, or "contamination," when a life pattern turns toward the worse.

In addition to these paths of redemption and contamination, McAdams places great emphasis on the distinction between agency and communion, as do other researchers. Morales and Shroyer (2016), for instance, use the term "personal agency inspired by hardships." In the context of education, Pacheco (2012) has discussed the ability to develop and strengthen contemporary agency as being relevant to the "everyday resistance" some students must engage

in to take on inequalities. In conjunction with agency and communion, memories of the "everyday resistance" could be leveraged through a renewed understanding of language, race, or whatever was the root cause of resistance.

The examination of agency within a student at a broad-access institution (or what can be called the New Urban University) aligns with renowned community psychologist Rappaport's (1977) observations. He argued that educators rarely validate how children from non-middle class, non-white cultures think in other situations, communicate with children and adults from their culture, or navigate content that is not school-related but is contextual to their reality. He further noted it is necessary to understand these strengths "as a function of their distinctive environment." Sedlacek (2005) calls for measures in higher education with variables relating to adjustment, motivation, and student perceptions, particularly compared to the traditional verbal and quantitative measures [of the SAT]: "While non-cognitive variables are useful for all students, they are particularly critical for nontraditional students, since standardized tests and prior grades may provide only a limited view of their potential."

How can we possibly know a student's potential purely from traditional cognitive measures? Traditionally underserved students may arrive at college being led to believe their level of intelligence is at a deficit. A critical role for college educators, therefore, is to validate the contextual and environmental knowledge students possess, and guide them to activate their own authentic agency within their new context, anchored in past experiences. By activating learning about their own agency, educators can help students move away from a place of neutrality or passivity. Learning then becomes less of a transference of knowledge, as most enter college believing it will be, and more about creating new and authentic forms of knowledge and experience (Freire, 2001). As a student's agency moves along the continuum of growth, so does their potential—and ultimately their success.

Agency-related College Readiness. Alternate measures of academic agency are not as mainstream as purely cognitive measures, partly because of their highly contextual nature, but also because of the lack of a shared definition. Without a shared understanding, the field of study is open to debate and criticism. This creates an air of skepticism on the usefulness of agency to affect, for instance, college success in any sort of systemic way (Sommerfield, 2011). In the absence of a universal definition or protocol, the attributes that eventually define agency depend on who is conducting the research (Sommerfield, 2011). This, coupled with the lack of a clear and universally accepted definition, has further stunted the advance of research in this area: "Clear definitions provide the foundation for utility, accuracy and understandability" (Patton, 2008). Without a collective definition, no shared tools of measurement exist (Duckworth & Yeager, 2015), and with no shared measurement, interventions related to student agency are compromised (Yeager & Walton, 2011). For higher education to better predict and define student readiness and success (Stecher & Hamilton, 2014), a universal definition for academic agency is critical—especially for non-traditional populations.

In relation to agency and readiness for college success, Sommerfield (2011) offers these five classifications: *habits of mind, executive functioning abilities, external resources, dispositions, and college knowledge*. By more clearly categorizing the multitude of non- academic attributes into specific domains, research can begin to isolate the most critical variables that comprise agency-related readiness (Sommerfield) and examine other key attributes that support its growth.

In an effort to describe agency and related attributes, ones which both comprise and support it, the following four validated scales, adapted to account for repetition or areas of overlapping themes, collectively offer a new measurement for consideration: the Non-cognitive Questionnaire (NCQ) (Tracy & Sedlacek, 1987); the Grit Scale (Duckworth, Matthews & Kelly, 2007); the Multigroup Ethnic Identity Measure (MEIM) (Phinney, 1992); and the New General Self-Efficacy

Scale (Chen, Gully, & Eden, 2001). Collectively, these scales examine general academic capacity (leadership, fair academic opportunity, academic self-appraisal, family support, and academic familiarity), grit (consistency of interest and perseverance of effort), ethnic identity, and self-efficacy. When combined into one protocol, these scales may bring researchers closer to identifying the attributes that comprise agency, and those that support its growth. Further, when these attributes are viewed in the aggregate, in isolation, or in relation to one another, educators may begin to see where targeted support could yield growth along a suggested continuum. Ultimately, students must embark on their educational journey and discover for themselves how to succeed within each environment they encounter. With the national six-year graduation rate at 60% for all first-time college students and 36% for those at broad-access institutions (U.S. Department of Education, National Center for Education Statistics, 2016), there has never been a more pressing time to explore fresh ways to support student success. Unlocking agency's potential could be the key to opening a new door for thousands of college or prospective college students; especially for those who have faced hardship resulting in high school GPAs and standardized test scores not reflective of their total capacity and desire to succeed.

Attributes that Define and Support Student Agency

The following section examines the aforementioned attributes alongside Sommerfield's five classifications of habits of mind, executive functioning abilities, external resources, dispositions, and college knowledge.

General Academic Capacity. Sedlacek and Brooks' (1976) seminal work on non-cognitive attributes and college success cuts across three of Sommerfield's classifications: *habits of mind*, *executive functioning abilities*, and *external resources*. Sedlacek and Brooks proposed seven non-cognitive predictors of minority student college success: *positive self-concept*, *realistic self-appraisal*, *understanding of and ability to deal with racism*, *preference for*

long-range goals over short-term or immediate needs, *availability of a strong support person*, *successful leadership experience,* and *demonstrated community service*. The Non-Cognitive Questionnaire (Tracey & Sedlacek, 1987) was later developed, which included subscales: *lack of perseverance, leadership, the desire to prove oneself, preference towards long-range goals, academic self-appraisal, family support, self-confidence,* and *academic familiarity.*

  Grit. The more recent Grit Scale (Duckworth & Quinn, 2009) sits squarely in Sommerfield's executive function abilities category. The Grit Scale suggests that perseverance and passion for long-term goals create resilience in learning. In a 2013 interview, Duckworth explained that grit is not just about having resilience in the face of failure, but concurrently remaining loyal to a commitment over many years. (Perkins-Gough, 2013). Grit also does not correlate with a high grade-point average or test scores, but rather has more to do with how much people want to understand, learn, or succeed.

  Grit is but one non-academic marker to predict college persistence and success, yet it has come under scrutiny for not tapping the potential of traditional students and many students of color. Critics (Herold, 2015, Sparks, 2016) consider grit a middle- and upper-class construct justifying privilege, and they criticize it for only being a proxy for character-building (Ris, 2015). To this end, it is believed that grit is offered as the solution for success for poor kids in low-performing schools and not necessarily expected of more affluent kids who have external resources available. Specifically, it may be believed that the grittier, poorer kids can climb their way out of poverty (Tough, 2012; Tough, 2011). As quoted in an Edweek op-ed blog (Herold, 2015) Ira Socol, an educator within Albermarle County public schools in Virginia states: Sure, I want kids who are resilient…. I also want children who feel safe in school, who feel their teachers are looking out for them, and who believe schools are providing them with flexibility and opportunity versus telling them to pull themselves out of poverty by their bootstraps. This statement suggests that while grit

may be a human characteristic, it is also largely defined by a person's environmental context.

  Multigroup Ethnic Identity. Ethnic identity and appreciation for diversity are important non-cognitive attributes; particularly for traditionally underserved minorities and even more so for students of color who attend predominately white institutions. Sommerfield classifies these attributes as *habits of the mind*, or those qualities which help people manage uncertain or challenging situations.

According to Erikson (1968), identity formation is fundamental to the development of human beings as they move through adolescence and early adulthood; and a critical subcomponent of this development is ethnic identity. Ethnic identity is a complex process involving how one views oneself within a wider ethnic group either of their own ethnic group, or within a multiethnic context (Cuellar, Nyberg, Maldonado, & Roberts, 1997). Assessing a student's degree of ethnic or multiethnic identity is increasingly important for systems of support in education as North American society grows more multicultural (Sue, Parham, & Bonilla-Santiago, 1998). The mental health implications of ethnic identity have received increasing attention as data suggests a strong correlation between a healthy ethnic identity and academic success (Cuellar, Nyberg, Maldonado, & Roberts, 1997; Sedlacek, 2005; and Cole, Matheson, & Anisman, 2007).

  Most salient to ethnic identity is stereotype threat, which refers to negative stereotypes about intellectual capacity based on one's ethnic, racial, or gender group to the degree that certain groups are regarded as inferior by the majority population (Steele & Aronson, 1995). Stereotype threat compromises self-esteem (Tajel, 1982) and may provoke motivational and emotional responses that could affect academic performance (Steele & Aronson, 1995). Cole, Matheson, and Anisman (2007) administered a series of scales that measured anxiety, depression, academic achievement goals, and perception of social support to 263 first-year North American college students from mixed racial backgrounds at a North American, predominately

white, institution of higher learning. The researchers found that students from traditionally underserved groups had greater goal avoidance and reduced perceptions of support within the academic environment. Further, although all students, including Euro-Caucasian students, showed signs of increased depression and anxiety over the academic year, minority students revealed increasingly higher levels compared to their non-minority counterparts. When grades were examined over the same period, students who experienced more depression and anxiety also exhibited lower grades. Cole, Matheson, and Anisman's research supports the possibility that stress-related symptoms associated with ethnic identity may be predictive of final grades for college students.

General Self-Efficacy. Although the notion of self-efficacy may seem straightforward, definitions vary. According to Wood and Bandura (1989), self-efficacy is the "belief in one's capabilities to mobilize the motivation, cognitive resources, and courses of action needed to meet given situational demands." Lee (2009) categorizes it as one of four self-belief constructs associated with personal achievement in academics: anxiety, self-concept, confidence, and self-efficacy. Social cognitive theory (Bandura, 1991) defines self-efficacy as (a) level or magnitude (particular level of task difficulty); (b) strength (certainty of successfully performing a particular level of task difficulty); and (c) generality (the extent to which magnitude and strength beliefs generalize across tasks and situations). Within Sommerfield's classifications, self-efficacy is not a stand-alone construct, but rather embedded across four of her five non-academic factors. For example, self-efficacy could be associated with the dispositions category, as defined by Ridgell and Lounsbury (2004). It also appears as a construct in Sedlacek's (1987) *Non-Cognitive Questionnaire* which cuts across three of Sommerfield's factors: habits of mind, executive functioning abilities, and external resources. Regardless of where self-efficacy fits within the compendium of non-academic attributes, it is one indicator of academic success (Lee, 2009).

Self-efficacy can also be defined as either a task-specific or general construct. Both task- specific and general self-efficacy relate to one's ability to achieve desired outcomes, but their difference lies in scope. For instance, Lee (2009) examined task-specific self-efficacy in relation to one's belief in mathematics success. In contrast, general self-efficacy is the belief in one's ability to perform well across a wide variety of situations (Chen, Gully, & Eden, 2001). Perhaps the most significant difference between task-specific and general self-efficacy is that general self-efficacy emerges over one's lifetime and strengthens as successes accumulate. Not surprisingly, therefore, as successes accumulate general self-efficacy becomes stronger, making it increasingly resistant to temporary failure (Eden, 1988). Task-specific self-efficacy, on the other hand, can come and go depending on the undertaking.

A strong general self-efficacy ultimately "trickles down" to situations that would be impacted by task-specific self-efficacy, making a strong general self-efficacy an indicator of success across multiple domains. When there is failure, a strong general self-efficacy acts as a shield against adverse, potentially ego-blowing events (Chen, Gully, & Eden, 2001). General self-efficacy has strong implications for academic success as it is positively relates to learning-related goal orientation (Chen , Gully, Whiteman, & Kilcullen, 2000), as well as motivational traits such as the need for achievement and conscientiousness (Chen, Gully, & Eden, 2000). In terms of preparing students for the workforce, as jobs become increasingly broad, complex, and demanding, having employees with a strong general self-efficacy is an asset (Chen, Gully, & Eden, 2001) and one that should be nurtured and developed in higher education.

The Gap in Literature: Understanding Academic Agency to Assess Academic Readiness

Part of the challenge for educators is that helping a student view their non-academic attributes as tools for success is highly contextual both in terms of each individual human being, and in terms of their specific environments. In other words, what may prove successful for a

specific population or person at one institution may not be successful at a similar university down the street. Yet, despite this challenge, Yeager and Walton (2011) posit that small interventions that target attributes such as dispositions, thoughts, feelings, and beliefs can sharply reduce achievement gaps over the long-term. Yeager and Walton (2011) describe learning environments as "tension systems" where a complex field of forces are at play, constantly promoting and restraining behavior. How students activate their agency within this tension system is vital. If educators within this tension system are able to understand each student and the attributes that comprise *their* agency in the aggregate, as isolated constructs, and as the interplay between constructs, perhaps higher education could more effectively help students move along their agency-based growth continuum. Yet because of the highly contextual and individualized nature of this type of intervention, coupled with the prevailing lack of a universal definition for agency, few high-quality measures exist (Duckworth & Yeager, 2015). This lack of construct validation (Cronbach & Meehl, 1955) may partly be the cause behind the few related educational interventions grounded in research (Stecher & Hamilton, 2014). Yet the need for these scales is pressing given their relevance for traditionally underserved students or for those who experienced hardship during their high school years resulting in a negative impact on GPA and standardized test scores.

Purpose of Study

The purpose of this study is to determine which combination of non-academic attributes, and the interplay between them, is most likely to generate and grow academic agency for undergraduate students within a specific environment, particularly the broad-access new urban university. Non-academic attributes examined include grit, ethnic identity, leadership, fair academic opportunity, academic self-appraisal, family support, and academic familiarity. Academic success is defined as academic self-efficacy and grade point average.

Research Questions

Question 1: What attributes define academic agency, and what is the evidence of convergent and discriminant validity, and predictability in relation to other relevant correlates and academic outcomes?

Question 2: Assuming academic agency exists along a continuum, is this growth affected by age, by pivotal life experiences, or both?

Question 3: What role can institutions of higher learning play in creating pivotal life experiences, and in connecting students to these past pivotal life experiences in order to foster growth of students' academic agency and capacity?

Method

This research study utilizes an explanatory sequential mixed-methods design. In such designs, the quantitative data is collected first, and the qualitative design is then used to explain the results in more detail (Creswell, 2014). A mixed-methods approach leverages the rich heterogeneity of quantitative and qualitative methodologies and synergistically bridges the commonalities of these separate approaches into a useful whole. A mixed-methods approach allows the interrelated constructs and themes derived from each method to converge and diverge, creating the opportunity to learn more deeply about the phenomena at hand (Olson & Jason, 2015). In the case of the proposed study, the mixed-methods design allows objective numerical tests of construct, convergent, predictive, and discriminant validity of agency to be determined through the collection and analysis of quantitative data. Qualitative interviews then provide richer context for agency and related constructs across life story narratives.

The present research refers to the quantitative component as *Study 1: Quantitative* and the qualitative as *Study 2: Qualitative*.

Study 1: Quantitative Methods

Participants and Procedure. A 67-question survey collecting demographic data and measures assessing the degree to which participants exhibit grit, ethnic identity, self-efficacy, leadership, fair academic opportunity, academic self-appraisal, family support, and academic familiarity was developed.

The survey battery, described below, was administered online via Survey Monkey to undergraduate students at a broad-access, urban university in Chicago, Illinois. The university is a private, non-profit, minority-serving, and Title V institution (where 25% or more of undergraduate students are Hispanic). The university is non-denominational and grounded in a

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social justice mission. Twenty-seven percent of attendees are undergraduate students, 80% are women, 44% are traditionally underserved minorities, and 91% of the student body attend part-time.

For the last 30 years, the university has focused on degree completion at the undergraduate level; accordingly the average age of students is 34. In 2010, the institution changed its focus and began recruiting traditionally-aged students directly out of high school. Today, there exist two undergraduate tracks for students pursuing their bachelor's degree. Officially launched in fall 2015, a new cohort-based program recruited students directly out of high school with no more than 15 transferable credits. Conversely, the degree-completion program attracts working adults who may have a substantial portion of the requirements necessary for an undergraduate degree, and likely have been separated from the higher education setting for a period of time. Many of these students are already well-established in their careers and juggling work, family obligations, and school at the same time.

The survey was administered in three waves. In total, 63 participants fully completed the survey. The first wave of data was collected in January, 2016 by inviting students in NLU's traditionally-aged undergraduate program to a pizza lunch during their regularly-scheduled learning lab time. Students were asked to bring their university-issued laptops or hand-held devices in order to access the survey link. Twenty-nine students completed the survey. Three participants' data were incomplete so were therefore permanently removed from the data set, leaving 26 participants.

The second wave of data were collected between March, 2016 and April 2016 by seeking permission from undergraduate faculty to disseminate the Survey Monkey link to their students. The survey was distributed to 96 students enrolled in NLU's degree completion program where 24 new students randomly participated and completed the survey. The third wave was collected

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from October 2016 through December 2016 using convenience sampling in NLU's traditionally-aged undergraduate program. Twelve students participated in this final wave of data collection. Once the survey closed, data was downloaded from Survey Monkey to Microsoft Excel, and then uploaded into SPSS. Data from participants was cleaned, leaving 63 participants with complete data.

Instruments. Section 1 of the survey battery comprised 38 questions capturing data on a variety of domains related to successful academic agency and readiness. Section 2 included the remaining 30 questions focusing on demographic data. Section 1 was constructed by combining and adapting the following four existing scales: the Grit Scale (Duckworth, Peterson, Matthews, & Kelly, 2007); the Multigroup Ethnic Identity Measure (MEIM; Phinney, 1992); the New General Self-Efficacy Scale (Chen, Gully, & Eden, 2001); and the Non-Cognitive Questionnaire (Tracy, Terence & Sedlacek, 1987). The Grit Scale used a five-point Likert scale ("Not like me at all," "A little like me," "Somewhat like me," "Mostly like me," and "Very much like me"). The remaining scales used a four-point Likert scale ("Strongly disagree," "Agree," "Disagree," and "Strongly disagree").

The MEIM, New General Self-Efficacy, and Academic Capital scales were reverse scored during analysis. Please see Appendix A for the Non-Cognitive Questionnaire.

Grit Scale. The Grit Scale was developed by Duckworth et. al. (2007) and contains two subscales: *perseverance*, and *passion for long-term goals*. Grit is as much about resiliency over adversity as it is about having consistent interests over time. Across multiple studies, grit steadily

demonstrated incremental success beyond pure talent, strongly suggesting grit may ultimately be the best at measuring the result of sustained effort over time.

The scale was validated through six studies examining different populations. These studies included educational attainment among two samples of adults (N =1,545 and N = 690) 25 years and older (M = 45 years); grade point average among Ivy League undergraduates (N = 139); retention in two classes of United States Military Academy, West Point, cadets (N = 1,218 and N = 1,308) with a median age of 19.05 (SD = 1.1); and ranking in the National Spelling Bee of children (N = 175) between the ages of 7 to 15 years (M = 12.20, SD = 1.23) (Duckworth, Peterson, Matthews, & Kelly, 2007). What Duckworth et. al. discovered was that grit consistently predicted success over talent (Perkins-Gough, 2013).

In the first two studies, which examined adults only, grit was related to age and had advanced levels of formal education. Older people tended to be higher in grit than younger people, suggesting that grit grows with time. Those with higher grit scores correspondingly made fewer career changes, indicating the importance of staying committed and loyal to a goal for the long term. The third study, which examined Ivy League undergraduate students, demonstrated that students who scored higher in grit also earned higher GPAs than their peers, despite having lower SAT scores. This study indicated that hard work was a stronger indication of success than pure (cognitive) talent. The fourth and fifth studies examined West Point cadets and found that grit predicted the summer retention of first year cadets better than the summary measure of cadet quality used by the West Point admissions committee. In the final study, competitors with more grit—defined as those with more accumulated practice—outranked participants with less grit in the Scripps National Spelling Bee (Duckworth, Peterson, Matthews, & Kelly, 2007).

The amount of energy invested in a specific task at a given moment in time is transparent both to oneself and others. What the grit scale allows is the examination of consistency of a person's long-term goals and the stamina with which those goals are pursued over time. Duckworth et. al. (2007) argue that this latter dimension is more challenging to measure because it must include the intensity of individual differences as well as the importance of working longer without switching direction.

Although the grit scale offers insight into individual differences in "resilience in the face of failure" and having deep commitments over many years, limitations exist. First, this self-report questionnaire may be particularly susceptible to social desirability bias or the desire to "look good" (Creswell, 2014). Second, the way in which the questions are worded (retrospective in nature, e.g. *Setbacks don't discourage me*) may be measuring consistency of situations over time rather than consistency of individual differences in grit over time. A third argument is that the six primary studies on the topic have focused on correlations between IQ and grit, thereby limiting the external validity of the tool. And finally, none of the studies explored the relationship between grit and other variables known to predict achievement (Duckworth, Peterson, Matthews, & Kelly, 2007), nor did they examine groups from traditionally underserved segments of society.

In the present study, grit was selected because of its emergent and exploratory qualities and limited use with traditionally underserved populations. Also, as a listed limitation, grit has not been examined much with other personal qualities attributable to success and academic agency. In the present study, grit is viewed in relation to other nonacademic attributes. This tool was used in its original format.

Multigroup Ethnic Identity Measure (MEIM). The Multigroup Ethnic Identity

Measure (MEIM) was conceived by Phinney (1992) and emerged out of the need for an

instrument that could assess ethnic identity across multiple racial/ethnic groups. Unlike most

ethnicity-related measures, the MEIM is unique in that it is not specific to a particular ethnic

group, such as African American, Hispanic American, or Asian American (Ponterotto, et. al.,

2003). This research uses the original MEIM (Phinney, 1992) which is comprised of one factor:

ethnic identity (a developmental and cognitive component) with affirmation, belonging, and

commitment as an affective component. On a test of internal consistency, the Cronbach's alpha

for MEIM items was high (.89), suggesting that overall the scale is considered reliable.

The MEIM builds from social and ego identity theory (Erikson, 1968) and underscores

Phinney's assumption that a single model of ethnic identity formation would supersede identity

with a specific ethnic group (Ponterotto et. al., 2003). Informed by theories in identity formation,

Phinney assumes ethnic identity evolves over a trajectory of time, starting in adolescence and

continuing through early adulthood. In early adulthood many people are still exploring their

ethnic identity (Marcia, 1980). The MEIM is the most widely used measure to assess the status

of ethnic identity formation with adolescent and young adult populations.

Because the MEIM's purpose is to assess ethnic identity across diverse ethnic groups,

content-specific components such as cultural values and beliefs are not included (Phinney &

Ong, 2007). A review of 12 studies (Ponterotto, et. al. 2003) found that the ethnic identity

reliability analysis is satisfactory and criterion-related validity is moderate. Yet, some

disagreement exists whether Phinney's MEIM is truly assessing ethnic identity. One study

involving 5,423 young adolescents, comprising diverse ethnocultural groups (Roberts, et al.,

1999), strongly suggested that "ethnic identity" is best thought of as exploration and

commitment, consistent with Marcia's (1980) trajectory for identity formation. Two additional studies subsequent to Roberts, et. al. (1999), focusing on similar populations, also suggest the use of exploration and commitment. A third analysis concentrating on Asian American college students suggests a three-factor solution: one similar to exploration, as well as clarity and pride (which together resemble commitment) (Phinney & Ong, 2007).

Phinney and Ong (2007) have acknowledged the subscale discrepancies as evidence stemming from few confirmatory factor analyses. The early uses of the scale were more exploratory where the more recent uses have been testing the psychometric properties of the construct and its subscales, which lead to the introduction of the MEIM-Revised (MEIM-R) (Phinney & Ong, 2007). The MEIM-R reduces the MEIM down from 14 questions to 10. Several questions are re-worded to reflect the present-perfect tense and two questions were replaced with new language entirely. Compared to a single, overall ethnic identity score, two subscales, *exploration* and *commitment*, are included (Phinney & Ong, 2007). Although the MEIM-R has increased in popularity, psychometric examinations of exploration and commitment remain rare (Chakwa, Butler, & Shapiro, 2015).

As stated previously, the original MEIM (1992) was used for the present research. The MEIM (1992) is reduced from 15 to nine questions to account for redundancies with the other three scales used in the study. Of the remaining nine questions, no language was adjusted from the original protocol. The use of the MEIM (1992) in the present study aligns with the conception of ethnic identity that has a developmental trajectory over time.

New General Self-Efficacy Scale. The New General Self-Efficacy Scale (NGSE) takes root in its predecessor, the General Self-Efficacy Scale (SGSE). Chen, Gully & Eden (2001) were motivated to revise the SGSE because of its apparent lack of systemic construct validity in relation to general self-efficacy. The former scale has been criticized for being too strongly associated with the Rosenberg Self-Esteem scale, and further, has failed to predict performance (Chen & Gully, 1997).

The development of the NGSE began with retaining seven of the original 17 items of the SGSE and creating seven new items for a total of 14. These 14 questions were scored on a 5-point Likert-type scale from "Strongly disagree" (1) to "Strongly agree" (5). The prototype was then tested three times within the context of higher education. Study 1 compared the content validity of the NGSE to that of the SGSE, and Studies 2 and 3 further compared reliability and validity of the NGSE and SCSE scales in various samples (Chen, Gully, & Eden, 2001).

The first study consisted of 316 (mean age = 24; 78% female) undergraduate students enrolled in upper-level psychology courses at a large, mid-Atlantic university. The second study included a similar group of 323 undergraduates. Of this sample, the average age was 23 (range=18-74) of whom 77% were women, 27% were not employed, 43% were employed part-time, and 30% were employed full-time. The third study included 54 managers (83% male; mean age of 38) attending an executive MBA program at an Israeli university (Chen, Gully, & Eden, 2001).

These studies confirmed the unidimensional nature of the NGSE compared to its predecessor. The NGSE yielded higher content and predictive validity, suggesting that this construct, consistent with the focus of the present study, may be useful in forecasting a student's success in college. Most importantly, the NGSE may be able to help explain motivation and performance in a variety of contexts; not just academia. The NGSE may be able

to inform educators and provide further confidence to students in their ability to effectively adapt to novel or adverse environments, which is also a strong indicator of personal, academic agency.

Although the NGSE has made great strides in accurately assessing general self-efficacy, showing convergent and yet discriminant validity with self-esteem, few studies have examined its relationship to other variables such as anxiety or school/work satisfaction due to the focus on goals, effort, and performance (Chen, Gully, & Eden 2001; Judge, Locke, & Durham, 1997). Therefore, for the present study, wording in the eight questions from the New General Self-Efficacy Scale were slightly adapted to reflect the context of education and the university setting in which the study was conducted. For example, the original question "I will be able to achieve most of the goals that I have set for myself" was adapted to "I will be able to achieve most of the *education* goals that I have set for myself at *this university*."

Non-Cognitive Questionnaire. Tracey and Sedlacek (1987) administered the Non-Cognitive Questionnaire (NCQ) to support more traditional admissions requirements (i.e. GPA and standardized test scores) and predict the academic success of academic minorities. The NCQ tests the structural relation of seven non-cognitive dimensions related to minority student academic success proposed by Sedlacek and Brooks (1976). These factors include: global positive self-concept as related to expectations for the coming years; realistic self-appraisal; especially with respect to academic abilities; understanding of and ability to deal with racism; ability to work toward longer-term rather than short-term goals; availability of people supportive of one's academic goals; successful leadership experience in either organized or informal groups; demonstrated community services; and academic familiarity. The survey consists of 23 items, broken down in two nominal items relating to educational expectations, 18

Likert-type items relating to expectations about college and self-assessment, and three open-ended questions relating to present goals, past accomplishments, and group affiliations.

The survey initially was administered en masse to 2,122 entering freshmen in 1979 and 1980 at a mid-Atlantic university. Of these freshmen, 80% identified as white, 13% black and the remaining 7% as other racial/ethnic backgrounds. The researchers discovered that, for white students, positive self-concept, preference for long-term goals, and realistic self-appraisal were most strongly related to GPA. Only positive self-concept predicted the likelihood that the white students would stay enrolled in school. Overall, it was the ability to meet academic demands that most strongly predicted white students' success.

For African American students, Tracey and Sedlacek observed a different pattern. The only variables related to GPA were positive self-concept and realistic self-appraisal. Positive self-concept, support, and community service were all strong dimensions in predicting persistence in school. Overall, it was the ability to cope with a wide variety of issues (i.e. agency) that most strongly signaled African American students' success (Tracey & Sedlacek, 1982).

This work is seminal in that it opened the discussion of how students from diverse backgrounds experience a sense of support at predominately white institutions. Their work signaled the need for institutions of higher education to examine how their environment is or is not supporting diverse students, in addition to the critical importance of "community" as an intervention. Since the first publication of the NCQ, numerous studies have shown strong validity in assessing the academic potential of a variety of nontraditional groups, particularly in relation to non-cognitive factors including African Americans, (Sheu & Sedlacek, 2004); Latino Americans; (Sheu & Sedlacek, 2004), Asian Americans (Fuertes, Sedlacek, & Liu, 1993; Sedlacek & Sheu, 2004, in press), international students (Boyer & Sedlacek, 1988), women

(Ancis & Sedlacek, 1997), as well as athletes (Sedlacek & Adams-Gaston, 1992). The NCQ scales predict grades, retention, and graduation from college, and are useful in scholarship selection and retention programs (Sedlacek, 2004). Reliability estimates (test-retest and coefficient alpha) range from .70 to .94 for the eight scales.

In the present research, the NCQ is adapted to account for redundancies with the other scales in the battery. Specifically, constructs relating to perseverance were omitted because of their similarity to Duckworth's Grit Scale. Self-confidence was also omitted because of its close relationship to self-efficacy. In sum, the original 24 question survey was reduced to 13 questions. Language was also adapted to reflect the context of the educational environment in which the research was conducted. For example, "I expect to encounter racism" was adapted to "I expect to encounter racism *at this institution*."

Based on the literature and theory, several items on the Sedlacek NCQ were used to derive the items of "academic agency," along with another different sub-component called "academic communion." The development and psychometric properties of these subscales, central to the current study, are described below.

Study 1: Results

Study 1 explored statistical relationships among non-academic attributes to help better understand the construct validity of academic agency. The first step in the analysis was to run Cronbach's alpha to determine the reliability of each of the four scales and subscales used in the analyses. Each scale demonstrated high internal consistency**.** Of the 38 questions examining academic attributes, 26 required reverse scoring: six questions from the Grit Scale measuring the consistency of interests; all ten questions comprising the Multigroup Ethnic Identity Measure; and four of eight questions comprising the General Self-Efficacy scale. In the fourth scale adapted from the Non-Cognitive Questionnaire, three questions measuring leadership, two

questions measuring fair academic opportunity, one question measuring academic self-appraisal, and one question measuring family support were also reversed scored.

Initially, data was coded so that analyses on individual domains within each scale could be examined. For grit, self-efficacy, and ethnic identity, the outputs from the complete scales proved more robust then separating out the domains. Therefore, responses from questions for each scale were computed to create a mean score for each participant across the scales, and then this single index was used for all subsequent analyses.

The adapted Non-Cognitive Questionnaire measured five variables (leadership, fair academic opportunity, academic self-appraisal, family support, and academic familiarity), and were condensed into two new and primary measures of academic communion and academic agency.

Academic communion combined one item from the domain of academic self-appraisal ("I am as skilled academically as the average undergraduate student at NLU") and one item from family support ("My family has always wanted me to go to college").

Academic agency combined all three questions measuring the domain of leadership ("I am sometimes looked up to by others"; "If I ran into problems concerning school, I have someone who would listen to me and help me"; and "In groups where I am comfortable, I am often looked to as a leader"); two questions from the variable of academic familiarity ("It should not be very hard to get a B (3.0) at this university" and "About 65% of students graduate within 6 years at private, non- profit universities (like this university). How certain are you that will you will graduate?") and one question about the desire to prove oneself ("I want a chance to prove myself academically").

Description of the Sample

Of the 63 students who fully completed the survey, 84% were female. Students recorded their

ethnicity, and the final sample was 50% Hispanic; 40% African American; 9% white, and 1% Asian. Participants' ages spanned 18 to 50 years where the near majority or 49% were between the ages of 18 and 19; 21% between 20 and 26; and 30% were 27 years old or older. The median GPA was 3.58.

The National Academy of Sciences recommends defining young adulthood between the ages of 18 and 26, and notes trends differ greatly from the current generation and those previous. Such trends include taking longer to achieve independence, having lengthened pathways to adulthood, and overall enjoying a less-healthy lifestyle. According to the National Academy of Sciences (2014) these trends make this age group particularly vulnerable, highlighting the need for special attention from the scientific community.

When examining agency-related variables on a growth continuum, the composition of the sample made it difficult to determine the effects of age versus program subgrouping, precisely because the different subgroups had distinctly different mean ages. Several statistical analyses were run to try to determine whether age or group had a stronger effect on the outcome variables. In the end, it was decided that it was perfectly acceptable to focus on age rather than the two programs from which the students were recruited. Nevertheless, given their strong relationship, it is likely that elements related to both age and the type of student who entered the program could have accounted for some portion of the findings.

Given the focus on age, and the preponderance of students between ages of 18 and 24 who took part in the study, data was examined by breaking the aggregate into three age group categories: Group 1: New Adults (ages of 18 to 19, n=31); Group 2: Young Adults (ages 20 to 26, n=15); and Group 3: Adults (27 and older n=16). One student did not identify their age. These age group categories were selected for several reasons. First, grouping participants within these age classifications seemed like a natural response given the distribution of ages. With 71%

of respondents under age 26 (n=63) and 49% between the ages of 18 and 19, Group 1: New Adults became an obvious bracket. The second category Group 2: Young Adults was identified based on the National Academy of Sciences recommendation for defining young adulthood between the ages of 18 and 26. With Group 1 already defined as having the most members, Group 2 became the group with the second highest number of members. Finally, Group 3: Adults was defined as students who were 27 and older. Of this final group, one student was 28, five students were in their 30s, four in their 40s and one student was 50. A second reason for grouping participants by age aligned with the researcher's desire to define and examine student agency along a continuum. Although age is the not the only factor which contributes towards continuum growth, it is important nonetheless.

Analysis of Growth Trajectory. A one-way between participants ANOVA was conducted to compare the effect of age groups on GPA, grit, self-efficacy, ethnic identity, academic communion, and academic agency. The most significant effects of age at the $p < .5$ level for the three conditions was self-efficacy $[F(2, 59) = 8.755, p = .000]$ followed by academic agency $[F(2.59) = 6.681, p = .002]$; GPA $[F(2, 59) = 6.528, p = .003]$; academic communion $[F(2.59) = 4.909, p = .011]$; and grit $[F(2, 59) = 3.587, p = .034]$. There was no statistically significant relationship between age and multi-group ethnic identity. See Table 1.

Post hoc comparisons using the Duncan test indicated the mean score across variables increased with each age grouping. For example, Group 3 had a higher mean score for self-efficacy (M=2.87, SD .900) compared to that of Group 2 (M=3.23, SD.932) and a significantly higher score compared to Group 1 (M=2.39, SD.898). See Table 2. This trend was observed across all variables, except ethnic identity where the highest score peaked in Group 2 (M=2.88, SD=.582), compared to Group 3 (M=2.77, SD=.919) although a modest gain was observed from

Group 1 (M=2.45, SD=.582) indicating some level of development from new adults to young adults.

The following six tables illustrate the mean variables of GPA, grit, self-efficacy, ethnic identity, academic communion, and academic agency in relation to the three age group categories of Group 1: 18 and 19 years old; Group 2: 20 to 26 years old; and Group 3: 27 years or older.

Table 1: Mean GPA and Age
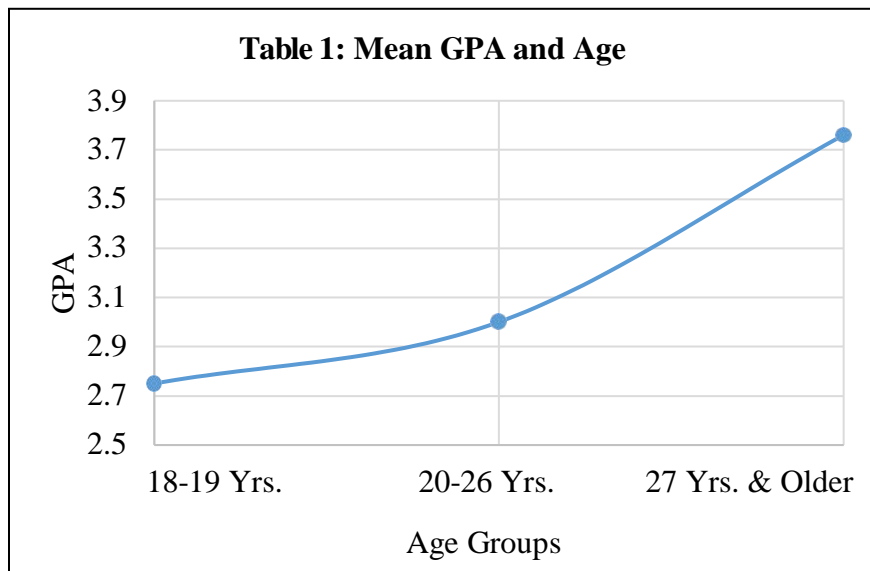
Table 1 represents the relationship between GPA and age groups. The mean GPA for Group 1:18 and 19 years old was 2.75; Group 2: 20 to 26 years old was 3.0 and Group 3: 27 and older was 3.76.

Table 2: Mean of Grit and Age Group
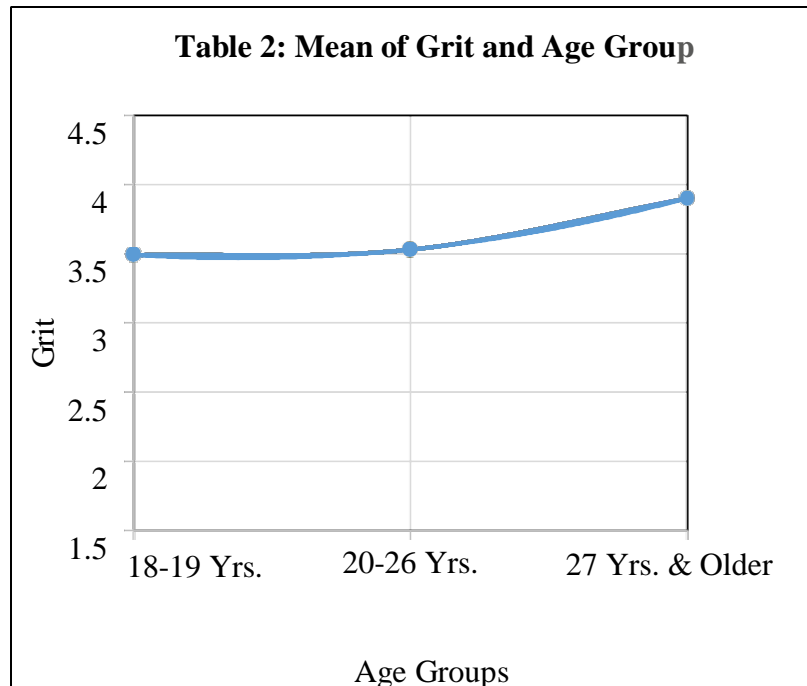
Table 2 represents the relationship between grit and age groups. Grit was measured on a five-point Likert scale ranging from 1 (*Not like me at all*) to 5 (*Very much like me*). The mean grit score for Group 1: 18 and 19 years old was 3.49 (between *Somewhat like me* and *Mostly like me*); Group 2: 20 to 26 years old was 3.53 (between *Somewhat like me* and *Mostly like me*); and Group 3: 27 years old and older was 3.9 (consistent with *Mostly like me*).

Table 3: Mean of Self-Efficacy and Age

Table 3 represents the relationship between self-efficacy and age groups. Self-efficacy was measured on a four-point Likert scale ranging from 1(*Strongly disagree*) to 4 (*Strongly agree*). The mean self-efficacy score for Group 1: 18 and 19 years old was 2.39 (consistent with *Disagree*); Group 2: 20 to 26 years old was 3.23 (consistent with *Agree*); and Group 3: 27 years old and older was 3.45 (between *Agree* and *Strongly agree*).

Table 4: Mean of Ethnic Identity and Age

Table 4 represents the relationship between ethnic identity and age groups. Self-efficacy was measured on a four-point Likert scale ranging from 1 (*Strongly disagree*) to 4 (*Strongly agree*). The mean ethnic identity score for Group 1: 18 and 19 years old was 2.45 (between *Disagree* and *Agree*); Group 2: 20 to 26 years old was 2.77 (between *Disagree* and *Agree*); and Group 3: 27 years old and older was 2.83 (between *Disagree* and *Agree*).

Table 5: Mean of Academic Communion and Age

Table 5 represents the relationship between academic communion and age

groups. Academic communion was measured on a four-point Likert scale ranging

from 1 (*Strongly disagree*) to 4 (*Strongly agree*). The mean academic communion

score for Group 1: 18 and 19 years old was 2.38 (consistent with *Disagree*);

Group 2: 20 to 26 years old was 3.08 (consistent with *Agree*); and Group 3: 27

years old and older was 3.15 (consistent with *Agree*).

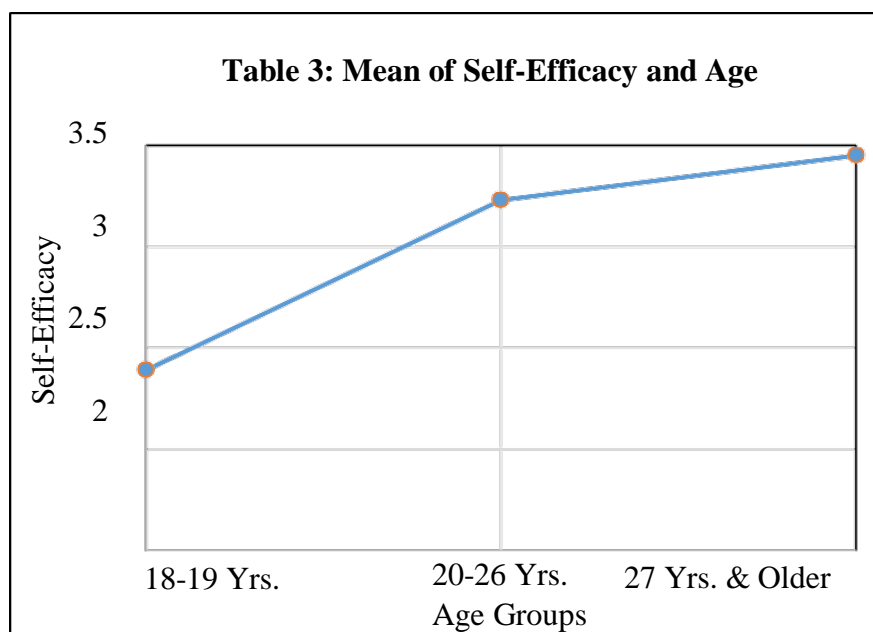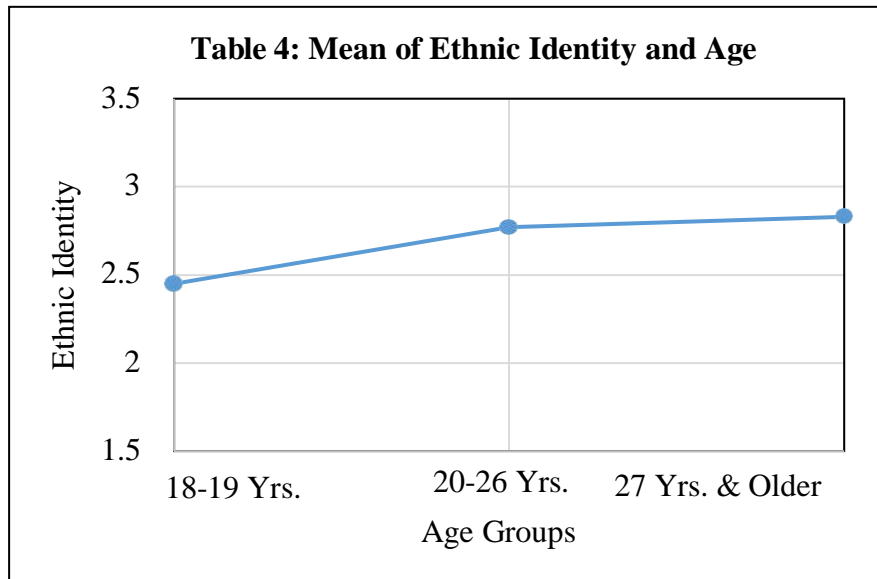**Table 6: Mean of Academic Agency and Age**

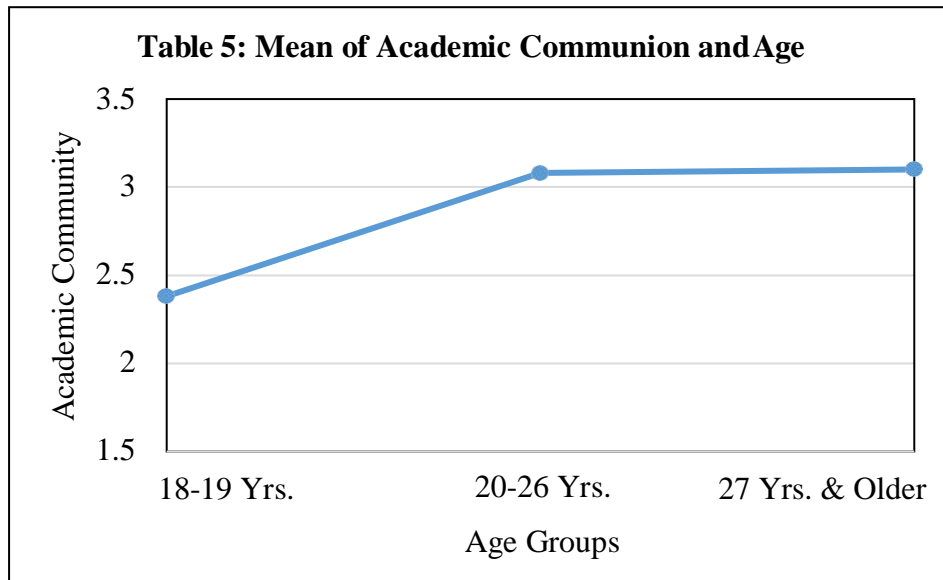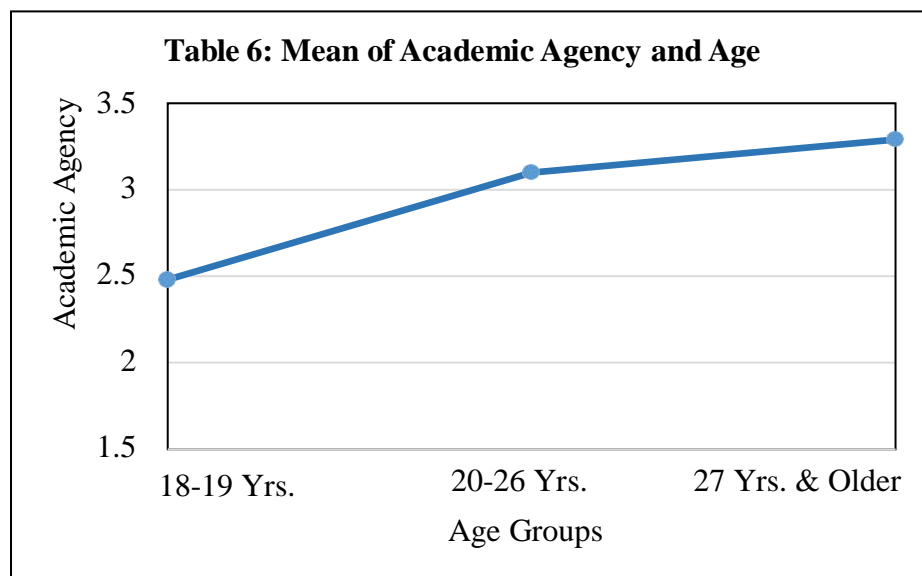Table 6 represents the relationship between academic agency and age

groups. Academic agency was measured on a four-point Likert scale ranging from 1 strongly disagree to 4 strongly agree. The mean academic agency score for Group 1: 18 and 19 years old was 2.48 (between *Disagree* and *Agree*); Group 2: 20 to 26 years old was 3.1 (consistent with *Agree*); and Group 3: 27 years old and older was 3.29 (consistent with *Agree*).

Taken together, these results suggest that as adults grow and mature, so does grit, self-efficacy, ability to do well in school (GPA and academic communion), and confidence to navigate the educational system (academic agency). The slight dip in ethnic identity observed in Group 3 compared to Groups 1 and 2 is consistent with literature. Although the construction of ethnic identity is dynamic, identity formation—of which ethnic identity is a subcomponent— peaks at adolescence and early adulthood (Erikson, 1968). Therefore, the ethnic identity constructed as a teenager will look different during young adulthood and again different during parenthood or middle age. Ethnic identity is also often related to experiences and is reevaluated at life's transitions (Blume, 2017). Understanding the role of ethnic identity within student agency, and again, along the continuum of student agency is critical. If students are not exploring this aspect of their identity in college, then it may signal the need to help them in finding ways to do so as it is developmentally appropriate and arguably necessary.

Grit is observed to change significantly as students age, again, signaling an opportunity to observe growth along a suggested continuum. Duckworth also observed an increase in grit as adults aged, but is careful to conclude that age is the main factor. Rather, what she suggests is that age combined with life experiences, and how those experiences are used as we grow, may be more of an indicator of grit. For example, As teenagers and young adults, people have a tendency towards novelty and a low threshold for frustration. Eventually people learn that abandoning plans, fluctuating goals, and continually starting over in search of "the next best

thing" are not effective strategies for success. However, these patterns may be adaptive earlier in life, leading people to the realization that moving on from dead-end pursuits is an essential step to self-discovery, development, and the ability to grow from demonstrated excellence (Duckworth & Quinn, 2009). Duckworth's observations reflect the trends observed in the present study, but compared to the two variables (consistency of effort and perseverance of effort) in Duckworth's study, this study examines nine variables.

An additional interesting observation is the degree of development taking place between Group 1 and 2. The present research shows clear growth in most attributes between 18- and 19-year-olds and 20- to 26-year-olds. One possible argument for the deeper evidence within the young adult group is that as people mature into their mid-20s, genetic maturation begins to take hold. Certain traits may be more beneficial with age as humans seek a mate or desire to raise a family. New adults at 18 and 19, however, find experimentation more appealing and may not be ready to grow and learn from experiences (McRae, et al., 1999). Regardless, these findings indicate that opportunity for growth within the young adult population is ripe suggesting that educators working with traditionally-aged undergraduate students have an opportunity for meaningful impact.

Regression Analyses. Two linear regressions were run in order to examine the convergent and discriminate predictability of self-efficacy and GPA Both regressions included the same set of predictors of grit, self-efficacy, ethnic identity, academic communion, academic agency, gender, and age group. The overall model for academic self-efficacy was significant with r^2 =.823 suggesting that the overall model accounted for 82% of variance. For GPA r^2 =.354, suggesting the overall model accounted for 35% of variance. The higher variance for self-efficacy regression may be connected to the fact that—like self-efficacy—the dependent variables were all social attributes (with the exception of age group and gender). Conversely, in

the second regression, the independent variable of GPA was a purely cognitive variable examined of course in relationship with mostly social variables.

Academic Self-Efficacy. With the first regression, where academic self-efficacy was the criterion, academic communion (p=.018) was a significant predictor (B = .44, p = .018). Yet, unequivocally, the strongest predictor was academic agency (B = .50, p=.000), suggesting that students who demonstrate a strong sense of academic agency, as defined in this study, also demonstrated higher levels of belief in themselves as successful students. While it was largely used as a control variable, gender was a significant predictor (B = -.36, p = .03) with males having higher academic self-efficacy scores, suggesting that perhaps female students feel less confident about their ability to succeed, or that male students are over-confident in their abilities. Perhaps somewhat surprising was the marginal finding with the grit beta (B = -.24, p = .06). While marginal, the negative beta showed an inverse relationship with self-efficacy, suggesting that students who believe they are gritty may actually be over-compensating for their lack of belief in themselves; although the impact of grit may have also been reduced by its relationship to the stronger agency and communion variables. Equally of interest was the lack of predictability ethnic identity (p=.248), suggesting little to no connection, across all students, between a student's ethnic identity and self-efficacy.

GPA In the second regression where the purely cognitive measure of GPA was the criterion variable, the betas demonstrated that at the p<.05 level, age (B = .194, p=.069) was somewhat predictive of GPA This time academic communion (B = .117, p = .635) did not significantly predict GPA, nor did gender (p = .476), nor grit (B = .06, p=.790). Ethnic identity (B = -.46, p = .05) showed an inverse relationship to GPA, suggesting perhaps that ethnic empowerment was not translating to higher grades, or even that it was somehow being used to

compensate for lower grades. Most important, however, as expected, academic agency (B = .55, p = .028) was the strongest, positive predictor of GPA

Overall, these two linear regressions demonstrate the strong and consistent predictive value of academic agency in both social and cognitive realms. When self-efficacy and GAP top correlates are held constant, academic agency is what mostly likely will predict both. In sum, the strong relationship between academic agency and self-efficacy and academic agency and GPA provide useful information for those wishing to help students grow their belief in their ability to succeed academically.

Study 2: Qualitative Methods

In the explanatory sequential mixed-methods design, the qualitative component of research, referred to here as Study 2: Qualitative Interviews, is used to provide essential context to the key findings in Study 1: Quantitative. Specifically, Study 2 uses the collection and analysis of personal narratives to elucidate connections grit, self-efficacy, ethnic identity, academic communion, and the newly-defined academic agency. It also brings in McAdams' life story theory related to narratives of contamination and redemption.

Participants and Procedures

Potential interviewees' names were collected at the conclusion of the survey conducted in Study 1. Participants in Study 1 were asked if they would be interested in participating in a 60-minute follow-up interview and twelve students responded in the affirmative. These students were notified via e-mail a month prior to the intended interview time-frame to establish whether they were still interested in participating. Six students responded to the follow up e-mail requesting the interview. One student, however, had already graduated from college so was no

longer eligible, leaving five eligible students. In order to invite more students for the interview, professionals working in the daytime undergraduate program were asked to recommend students as key informants. Twelve additional students were recommended and all participated. Each student was given a $40 gift card for participation.

An interview sign-up schedule was created using Google Docs and the link distributed to students. The sign-up schedule included instructions, available dates, times, and interview modalities (telephone, face-to-face and Zoom). Students were invited to sign up based on their availability and preferred interview modality. Interviews were conducted between November 4th and December 10th, 2016. Times were made available between 9am and 6pm with weekday and weekend time slots available to accommodate working and school schedules.

Two interviews were conducted face-to-face, two interviews were conducted using the video teleconferencing tool Zoom, and the remaining thirteen interviews were conducted by telephone. The face-to-face interviews were audio recorded using an iPhone 6 and a free app called *Recorder* by TapMedia. TapMedia interviews were recorded as MP3 audio files. The telephone interviews were audio recorded using an iPhone 6 and the fee-based ($9.99) app called *TapeACall* by TapeACall. *TapeACall* interviews were recorded as MPEG-4 audio files. The teleconferencing Zoom interviews were recorded using the function to record within Zoom. Files were recorded as MPEG-4 audio files. As the interviews were completed, they were downloaded to a computer, saved on a hard drive and backed up on an external hard drive.

While the interviews were taking place, field notes capturing *high impact* quotes, a technique used in the rapid evaluation method (I-TECH, 2010), were taken. For the telephone and Zoom interviews, these notes were typed directly under each protocol question while the participants spoke. For the face-to-face interviews, notes were taken by hand and copied into a

hard-copy of the interview protocol. Hand-written field notes were considered a more personal method of note-taking verses using a laptop computer.

Seventeen students in total were interviewed. Four participants were men where one identified as African American and the remaining three Hispanic. One woman identified as Belarusian (from Belarus), three women identified as African American, and the remaining nine participants identified as Hispanic. All participants who identified as Hispanic further identified as Mexican. In terms of age, students ranged from 19 to 44 years old. In reference to Study 1 age categories, eight students were in Group 1: New Adult (ages 18 and 19); seven students were in Group 2: Young Adult (20-26); and two students were in Group 3: Adult (27 and older). All of the men were age 22 or younger.

Students who were interviewed were in one of two undergraduate programs. Five students were enrolled in the degree-completion program which focuses on the back two years of the bachelor's. This program offers evening and online classes and caters to older, non-traditionally aged adults. Students in this program typically have stopped-out of education over the course of time in order to juggle career and family demands. The remaining 12 students were in the daytime undergraduate program, which offers classes between 9am and 4pm Monday through Thursday. Students enrolled in this program typically matriculate straight from high school.

The researcher wanted to more fully investigate life stories in relation to the young adults who matriculated straight from high school into college. This decision was based on an emergent interest in identity formation and the growth trajectories of this population between ages 18 and 26. Further, there has been increased attention on college students within this age group as they

have become increasingly more vulnerable, underscoring the need for deeper understanding and subsequent supports in order to successfully complete college.

Although all 17 students were interviewed, the five nontraditionally-aged students were not included in the final analysis. Two of these students, who were in the Group 2: Young Adult age category, had recently graduated from college. In fact, one student was already enrolled in a master's degree program at the same institution and the other student had completed two bachelor's degrees at the time of the interview. Because the purpose of the study was to examine the experience of undergraduate students while they were enrolled as undergraduate students pursuing their first degree, these students were no longer eligible. The remaining three students were in Group 3: Adults. Because the majority of students at this juncture landed in Group 1: New Adults and Group 2: Young Adults, and were all enrolled in the same program (daytime undergraduate program), coupled with the researcher's interest in examining this age group, the decision was made to focus data analysis on these students only.

Life Story Interview

The philosophy undergirding the design of Study 2 was informed by Dan McAdams' (2001) Life Story Model of Identity (see Appendix B for the Interview Protocol, including interview questions). The life story model of identity is similar to constructivist theory in that it explores how people generate a deeper understanding of their lives through lived experiences and ideas (Creswell, 2014). More poignantly, constructivism rejects positivist framing where truth is believed to be objective and supported solely by observable and measurable facts. Here, the truth is recognized by how personal meaning is constructed as a result of connection, collaboration, and mutual understanding of a person's: lived experience with their

environment; historical and social perspectives of culture(s); and interactions with people (Dalton, Elias, & Wandersman, 2007; Creswell, 2014).

The life story model maintains that truth resides in our personal stories and that human beings naturally organize life's past events as stories that constantly evolve. By telling stories, people organically connect events with their personal development and growth. According to McAdams (2004), starting in late adolescence and young adulthood, people living in modern societies begin to organize their lives in terms of stories. The past is reconstructed and the future anticipated through internalized, evolving life stories with settings, scenes, characters, plots, and themes. This structure reflects his categorization of human stories as peak or high points, low points, turning points, earliest memories, important childhood scenes, important adolescent scenes, important adult scenes, and any other significant event that may stand out for the person (McAdams, 1995). The importance placed on the individual components of the stories are dependent upon the person and culture or environmental context in which a person is living (McAdams, 2004).

McAdams' categories create a structure from which interview questions were built for the current protocol and adapted to the context of education. Specifically, the interview protocol explored pivotal memories of the students related to their own academic life story. For example, the protocol prompted students to reflect on their earliest memories of college: "Please explain a situation in which you can recall from your childhood or adolescent-aged years when you first began to think about going to college." This question is then followed up with specific probes to encourage participants to provide details critical to their life story: "What makes this memory stand out? What triggered your thoughts today about this specific memory? Were there others involved? What were you thinking and how did the idea of 'college' make you feel?" Questions

also inquired about high points or peak experiences in education, such as: "This scene is a high point, or what some people might call a 'peak experience.' This would be an event that you experienced in your formal schooling that you thought was positive or wonderful that you now look back on as a high point"*;* and turning points, such as: "In looking back on your educational experience, you may be able to identify particular 'turning points'—episodes through which you experienced an important change in your thinking about education or yourself as a student." Like McAdams, the protocol explored generalized themes with elements of gender, race, and class unique and relevant only to the storyteller's experience, but within the context of educational experience (McAdams, 2001).

The structure was flexible enough to allow questions and prompts to be formulated in such a way to elucidate examples of the attributes explored in Study 1, such as grit (inconsistency of effort and perseverance of effort), self-efficacy, ethnic identity, academic communion (academic self-appraisal and family support), and the newly-defined academic agency (leadership, academic familiarity, desire to prove oneself). For example, this question focused on a peak moment in education and further probed for positive experiences in ethnic identity: "Can you explain a moment or event in your adolescent or teenage years at school or during a time when learning was taking place, when you felt proud to be part of your ethnic group?" And conversely, negative experiences: "Can you recall a time when you were an adolescent or teenager where you had negative experience in school based on your race, ethnicity, gender, native language, religion or any other group with which you identify?" The interview explored participants' experiences and relationships with their university context/environment: "Tell me about the environment at this university. What is the community like here for you?" As well as questions regarding the people with whom they study: "How would you describe the program you're in? How would you describe the learning community to

someone who has not experienced it? What are some characteristics?" The questions are phrased

intentionally to allow ample opportunity for the participants to expand on their thoughts and

provide detailed information on their emotions, experiences, or important people who have made

their life experiences more memorable.

Finally, the protocol asked participants to reflect on their future. In McAdams' life story

model of identity, personal stories are constantly evolving. In this study, the researcher wanted to

elicit thoughts from participants on their future to obtain a fuller and more accurate portrayal of

life in general (McAdams, 2004). Following is an example of this line of questioning within the

protocol: "Imagine the future now, rather than the past. I want you to imagine a scene from the

future in your life, once you have earned your degree. This would be an event or experience that

could realistically happen in your life, in your community, or on the job—something in the

future after you have earned your degree. Imagine just such an event and describe what it might

be like."

Study 2: Results and Discussion

Analysis

The 12 digital audio files were uploaded to Dedoose and labeled according to each

participant number. Dedoose is a software-based application that facilitates qualitative and

quantitative analysis. This application was selected because it allows the researcher to analyze

qualitative data by coding, tagging, and sorting audio clips (SocioCultural Research

Consultants, LLC, 2016).

A blended form of inductive and deductive analysis was used, allowing the researcher to

approach the study without presupposing in advance what the possible dimensions will be

(Patton, 2002). The inductive analysis, followed an exploration based in grounded theory

(Auerbach & Silverstein, 2003) which allowed the researcher to enter into data collection with a somewhat exploratory frame of mind in order to see what themes naturally emerged from the narratives.

Yet theory was also used, even if loosely, both in terms of the interview protocol, and also the analysis. In addition to the concepts of grit, self-efficacy, and ethnic identity, the theoretical frame of McAdams' Life Story Framework was kept in mind, and proved useful. Although everyone's life story differs, the life story model of identity recognizes common themes reflecting certain cultural values. McAdams' first thematic distinction is *agency vs. communion.* People from individualistic cultures (e.g. Europe and North America) tend to develop stories emphasizing themes related to individual goals and achievements. McAdams' use of agency contributed strongly to the definition of agency used for the current research. This definition understands agency as an inner motivation needed to individually succeed—in McAdam's definition, agency explains success and happiness in life. In the present research study, agency defines success and happiness in academia. *Communion* refers to how people from more collectivist cultures (e.g. at a greater extreme, China and Japan) evolve their stories around themes emphasizing conformity to social norms.

The second thematic distinction is *redemption vs. contamination.* Here, redemptive themes reflect a person's ability to see after negative or extremely challenging life events, the trajectory toward a positive ending to one's overall story. Contamination is the opposite, when a seemingly positive or steady life events later take a negative trajectory (McAdams, 2004). Despite these common themes, life stories ultimately reflect how each person makes meaning of one's life within a particular context (McAdams, 2001).

The data transcription and analysis methodology in Study 2 draws upon procedures used in rapid evaluation. Rapid evaluation is a reliable and validated systematic approach to data collection when the time frame is condensed and resources are limited (I-TECH, 2010). Rapid evaluation includes several investigative techniques. One relies on key informant interviews from those most deeply impacted by the intervention. These interviews are said to represent the nucleus of the rapid evaluation design because they provide extensive knowledge, attitudes, language, and behaviors regarding the program (I-TECH, 2010). The second technique is the use of high-impact note taking which takes the place of transcription. Both techniques were used in Study 2.

To complement the rapid evaluation data collection technique, the qualitative analysis applied an adapted version of the Framework Approach (Ritchie & Spencer, 2002) to provide necessary organization to the process. This method allowed for a deeper analysis of the meaning and consequences of participant stories in a more structured way. The Framework Approach involved a five-step process which is both flexible and non-linear where steps were repeated or conducted simultaneously as required. The five steps are:

1. Familiarization;

2. Identifying a Thematic Framework;

3. Classifying and Sorting Data;

4. Charting; and

5. Mapping and Interpretation.

Figure 1: Summary of Five-Step Analysis Approach

1 •**Familiarization:** All recordings and high-impact notes read to become immersed in the data; immediate ideas or recurrent themes were noted.

2 •**Identifying a Thematic Framework**: Themes and issues—both deductive and inductive—that arose were recognized and noted.

3 •**Classifying and Sorting Data:** Selections of audio were assigned a code to the theme to which it pertained. New codes were created or multiple codes were combined as needed. High impact notes were taken on specific audio selections.

4 •**Charting:** Code charts were constructed by grouping identically coded audio selections and creating code matrices to examine codes both in isolation and where they overlapped/intersected.

5 •**Mapping and Interpretation:** The matrices were analyzed and specific audio clips selected and transcribed. These audio clips and transcriptions were representative of the emergent theme and used in the final narrative interpretation.

As indicated by the numbered chevrons on the left side of Figure 1, the Framework Analysis follows a logical series of steps that lead to the final results in Step 5. The upward "backtracking" arrows on the right indicate the iterative nature of the process: steps may be repeated as required because new ideas emerge in later on which require re-familiarization with the data, the identification of new themes, or new indexing (or re-indexing). This process in qualitative analysis should not be thought of as a repetitive automated task, but as a reflective and thoughtful process and as one instrumental to creating insight and developing meaning (Srivastava & Hopwood, 2009).

Organization. *Familiarization.* When using the rapid evaluation technique with interview data, conversations are recorded prior to note-taking. The first step in the qualitative data analysis plan, as noted in the Framework Analysis, is to become familiar with the high-impact notes. Patton (2002) refers to this as *getting a sense of the whole.* In order to get a sense of how many, and under which questions high-impact notes were taken, an Excel spreadsheet

was created with tabs labeled to reflect each section of the interview: *A. Warm Up/Going to College; Academic Agency; C. Peak, Low and Turning Points and Academic Agency;* and *D. Alternative Story/Idealized Future Scene.* The names of each participant were listed in the furthest left-hand column of each sheet. Questions within each section were copied into the first row of each sheet and notes copied and pasted within the column under each question. This process allowed the researcher to see if there was a pattern in note-taking. Certain questions produced few to no notes across participants, other questions produced many notes across participants, and some questions produced many notes for some participants and nothing for others.

   Identifying a Thematic Framework. Reading through the high-impact notes allowed for initial themes and issues to emerge.

   Classifying and Sorting Data:Classifying. A book of parent and child codes was created in Dedoose in order to classify and sort audio clips into emergent themes. Initially, 14 parent codes and 12 subsequent child codes were created. The codes reflected three clusters of thinking and were based on the questions in the protocol. The first cluster reflected variables in the quantitative survey. Codes included: *Academic Capacity: Leadership; Grit (child codes: Consistency of Effort and Perseverance of Effort); Academic Familiarity; Fair Academic Opportunity; Family Support; Ethnic Identity; Positive Academic Self-Appraisal;* and *Self-Efficacy*.

   A second cluster of codes reflected themes from McAdams Life Story interview model. Codes included: *Alternate Story: What if you were not pursuing your degree?; First memory of college going; Future Goals; Scene in the Future;* and *Low, Peak and Turning Points.*

The third cluster of codes represented notions the researcher wanted to capture. For example, *Continuum* where examples of growth around a variable in a personal story might emerge or *Great Quotes* where participant statements provided new ideas for thought.

Given the constructivist nature of this research, new codes emerged as the researcher began listening to interviews. After the fifth interview, codes based on McAdams Life Story interview model were added to include *Redemption versus Contamination* and *Agency versus Communion,* which eventually became the cornerstone of the analysis of the qualitative section. See Appendix C for complete listing of parent and child codes.

Interviews ranged from 40 to 90 minutes. Each interview was listened to and additional notes were taken and attached to the audio excerpt. Some excerpts received multiple tags, others received only one. Once an audio clip was tagged and notes taken, it was automatically filed within Dedoose.

Sorting Data. In order to gain an over-arching view of the prevalence of tags per code, a code application sort was conducted in Dedoose. The code application sort allowed the researcher to visualize a colorful grid displaying the number of excerpts tagged under each code, by participant. In the code application grid, the Y-axis showed the parent and child codes, and the X-axis the participants. Dedoose displayed this data in a colorful arrangement where a single audio clip would receive a dark blue tag, two clips light blue, three and four clips dark green, five clips light green, six clips yellow and seven and above clips red. When the researcher hovered over a coordinate on the grid, Dedoose opened a new window revealing the excerpt(s), subsequent tags, and the notes attached to that excerpt.

Charting. Charting audio clips in Dedoose is a straight forward and user-friendly process. Dedoose allows the researcher to create matrices to examine where coded excerpts overlapped,

Intersected, or were "stand alone," with no overlapping or intersecting tags with other excerpts. Within the *Analyze* section of the program, the researcher can select from a menu of *chart selectors* allowing for custom graphs and visuals. Here, a code co-occurrence grid was created in Dedoose which allowed the researcher to see where codes overlapped. For example, *Self-efficacy* and *Great Quotes* were tagged together the most, with eight co-occurring tags. The code co-occurrence grid also showed the total number tags per code. For example, the most often used code was *self-efficacy* with 50 tags and the least tagged code was *Academic Familiarity* with zero tags. When the researcher hovered over a coordinate on the grid, Dedoose opened a new window revealing the excerpts, their codes as well as notes attached to that excerpt.

 Mapping and Interpretation. The charting process allowed the researcher to pinpoint the specific excerpts that tied together and supported the thematic framework based on McAdams A*gency versus Communion* and *Redemption versus Contamination* arrived at in Step 5 of the Framework Analysis. These findings are presented under two major domains: Domain 1: *Rationalization for Growth (*How students rationalize, justify, and give reasons for their growth or desire to grow academically*)* and Domain 2: *Use of Experience for Growth* (How past experiences in education are used by students to grow, affect decisions, or influence choice in education*).* To guide the narrative analysis, each domain is divided into sub-themes which include the analyzed narrative and the interview quote that best represents the findings. The themes for the domains are *Evidence of Academic Attributes; Harmony or Conflict;* and *Continuum.*

Domain 1: Rationalization for Growth. Guided by McAdams' theory of *Agency versus Communion*, Domain 1 grouped accounts from student quotes that rationalized or justified past events and future aspirations as the result of individual hard work versus family or community expectations. For McAdams, *agency* represents individual will and a person's recognition of their personal effort. McAdams counters *agency* with *communion* where stories emphasize conformity to social norms. In the context of these interviews, agency mirrored McAdams' interpretation but within the context of education. *Communion* was interpreted as stories involving rationale for success stemming from support from others, typically family, educators and friends, with secondary mention of personal will and hard work.

1. Evidence of Academic Attributes. Across all 12 recorded interview segments grouped under Domain 1: Rationalization of Growth, instances of academic attributes appeared 36 times. These students also showed a proclivity towards either agency or communion (not both). In Study 1, given the quantitative nature of statistical analyses, there was a greater emphasis on the relevance of agency and the related correlates. With qualitative analyses, it was possible to look more closely at how the variables interacted with and were embedded within each other. In other words, under the codes of agency and communion it was possible to see how, for instance, grit and self-efficacy appeared within these narratives. Under the agency versus communion quotes, the most prevalent academic attribute was grit. The second most prevalent academic attributes were academic capacity, Leadership and self-efficacy followed by ethnic identity and then finally, family support. Regarding ethnic identity, academic attributes represented both negative and positive experiences. Questions elicited varying degrees of academic attributes.

Self-Efficacy and Grit. When students were asked whether they thought they would graduate in six-years or less, all respondents said yes; however, some students attributed their future success of graduation to their hard work and personal will, exhibiting strong self-efficacy and grit: "I just

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feel like with all the hard work that I do I can achieve.... I can do it. Yes, I am very confident it will take me 6 or less years [to graduate from college]" (Female student, #6). The following example also demonstrates a student who displayed strong self-efficacy and grit: "…because I have that motivation in me. Like, I wanna get this done. I don't want to have it lingering over my head. I don't want to wait a couple years and take a couple years off and finish in a couple more years. For me especially I know if I take time out it will be really difficult to get back into it. I'm gonna try to strive for it to stay in school as continuously as possible" (Student #4, male).

   2. Harmony or Conflict. Students did not always demonstrate strong agency alone or strong communion alone, but oftentimes showed evidence of toggling between both a strong sense of self and family support. Responses varied in terms of being in harmony or conflict with the will of oneself verses that of one's community of family and friends.

   Harmony. When a student was asked to imagine her life in the future after she received her degree, she acknowledged her personal desire while also recognizing her family's. She mentions her family's wishes for her, which were different than her own, but her will to follow her path prevailed: "I always thought I wanted to be a detective in criminal justice. I know there's a lot of steps and you have to go through being a cop first. But I can see myself getting promoted to be a detective and I know that my family would be there and be proud and scared at the same time because it's so risky. But that's one of the things I would be very proud to be able to do one day (Student #11, female).

   Conflict. In contrast to being in harmony with agency and communion, students still struggled with the notion of pursuing their own interests, knowing that the community was not always supporting them. When asked to share a negative experience due to race, ethnicity,

Language, or any other group-identity in school, or when learning was taking place, one student shared her struggle between wanting to volunteer for her school verses the pressure she received from her peer group: "A lot of my friends who were Latino wouldn't participate in stuff. Basically they would go to school and right away leave. I would actually stay after and get involved with a lot of clubs…I really like helping out other people…so, in my senior year I got a senior medallion I was really proud of myself from help from my counselors, they are Latinos too" (Student #8, female). This student explained further in the interview that getting involved in the school was seen as "American" to her friends and that she felt her interest was seen as a betrayal to her peer group.

   3. Continuum. Despite the struggle students have between agency and communion, this struggle can emerge as a moment of growth, therefore providing movement along the academic agency continuum. For the student who was in conflict with volunteering for her school versus being with her friends, she discussed later in the interview how she finally had to push some friendships away so she could succeed: "…I had to push a friend away because I wanted to go to a club…my friends got mad….I really wanted to help out….I told them they should understand because it would help out with their future. I felt proud of myself…I got more experience…I got more involved in school…for example, when I was applying to colleges I would write in what kind of clubs I was, I talked about my experiences and National Louis University right away liked my experiences from high school" (Student #8, female). As difficult as it was, this student realized she made the right decision, and she will have this experience to draw upon as she encounters likely even more difficult social decisions in the future. This past memory was a pivotal moment for the student, and one that provided the opportunity for growth.

The following student discussed how her family did not really have an opinion on whether she went to college. Her older brother was offered a full scholarship to college because of his soccer skills, but he turned it down and decided to work instead. She believed that his action caused her parents to withdraw from wanting a college education for the rest of the children, but when she was a senior in high school, she realized that going to college was something she wanted to pursue. When she was asked about her first memory of knowing college was in her future, she responded: "I felt really scared because my brother didn't go [to college] so I didn't know much about it so I had to do everything on my own and my counselor in high school didn't really help me with anything. I had to find everything on my own. I felt really under pressure because I had to do this, I had to do this...and I'm glad I pushed myself to do it...it's the university, it's really going to help me with my future" (Student #11, female).

The action of pursuing college with no family or school support provided a moment of growth for this student. When asked how she felt about her decision, she said: "It's just scary to think I'm actually doing this...but I'm really proud of myself because I pushed myself to do this and I didn't follow in my brother's footsteps who didn't go to college..." (Student #11, female).

Domain 2: Use of Experience for Growth. Guided by the McAdams theory of *Redemption versus Contamination*, *redemption* refers to the frequent positive trajectory of a person's life path, particularly when it follows a series of negative life events. Conversely, *contamination* is when a positive event is proceeded by a negative experience. In this analysis, redemption highlights personal events that resulted in a moment of growth. Contamination is interpreted slightly different than McAdams. Here, contamination is a negative incident—which can either follow a positive life event or simply be a stand-alone negative event—where little to no growth takes place. Put more poignantly, contamination in this study represents experiences

that have in some way arrested a student's growth in a certain academic or otherwise life-related area.

1. Evidence of Academic Attributes. Across all 12 recorded interview segments grouped under Domain 2, instances of academic attributes appeared 17 times. The most prevalent academic attribute was self-efficacy followed by negative ethnic identity, positive ethnic identity, and grit.

Self-Efficacy. One student discussed the anxiety she felt as she neared the end of her senior year of high school. She had done well in high school, but her political science class was tremendously challenging, and she feared she had not passed it. She finally approached the teacher days before she was to walk and inquired about her final grade. The teacher told her she had passed with a C grade. Although this student was accustomed to As and Bs, she accepted the grade because it meant she was definitely graduating from high school. When asked how that experience made her feel, she responded: "As soon as he told me I passed, I remember a weight lifted off my shoulders it felt so good and I started laughing." When asked how that experience has impacted her today, she responded with: "That impacted me because now sitting in college I think about it…if I passed that class which is probably one of the hardest classes I've ever taken so far, I'm pretty sure I can pass classes even in college no matter how hard they are…like I just have to make sure I'm into it, that I set myself down and say I'm gonna do it and I'm gonna do this homework and pass this class. I can pretty much pass any class" (Student #10, female).

Grit. When asked about a low point in her educational experience, this student recounted a story from her high school years when her parents went through a divorce. As a result, she became very depressed and abandoned her academics her sophomore year. As she started her Junior year, she realized she had to make changes: "I started pushing myself in school and

stayed so many days after school just to push up my grades for the term. I ended up passing my

Junior year with As and Bs when I started with Ds and Fs. I was proud of myself since then

because I knew if I could overcome that amount of problems I think I can do it in college too"

(Student #5, female). The student then reflected that her father had never shown interest in her

academics which made her think he was not proud of her. But once he left and was out of her

life, her academics improved because she realized his approval was not necessary for her to feel

proud.

      Redemption versus Contamination. At points during their stories, students would often

move between redemption and contamination as they explored the deeper meaning of events and

what they learned from negative life experience. Some students were forced to come to the

realization that a positive force in life can sometimes lead to a negative consequence, as in

contamination, if it is not handled appropriately.

      Redemption. Consistent with McAdams' findings across the decades, students more

commonly told stories where a negative experience had ultimately turned into a positive

experience. Examples of redemption appeared 56 times across the 12 interviews. This student

discussed how she felt when she began to understand the deeper implications of her

undocumented status: "I didn't even know what the consequences of being undocumented was

until my Junior Year when I started applying to colleges. I started applying to colleges for

scholarships, I didn't know I couldn't get financial aid …." (Student #9, female). This student

later explained how she felt paralyzed and broke down crying when her teacher explained what

being undocumented meant in the context of college. This student did not allow her new reality

to bring her down completely; however. As a result, during her senior year, she started a

DREAMers Club for younger classmen so that they could prepare for their future: "I didn't know

I couldn't just go to the college I wanted to, so that's why I created this program, so we could advocate ourselves, so I could help other people who were also undocumented or at least help other students do better their freshman year so they wouldn't do the same things I did my freshman year. I was a good student, but I didn't do as good as I could until my junior year, that's why my junior year I got everything together…My freshman and sophomore year I did good, but it was average…that's why I created this group and started looking into GPAs and started pushing everyone to do better with their GPAs and I began pushing everyone and educating people what it means to be documented out there in the world" (Student #9, female).

Contamination. For some students, a seemingly positive experience—such as going to college—had negative or contaminating consequences. The occurrence of contamination appeared only 17 times, suggesting that perhaps students naturally see the positive in their situations. One student explained how her commitment to college, which she saw as a strong positive influence in her life, ultimately cost her an important friendship: "I used to have a close best friend….he goes to P3 [college] with me…he'd always tell me I'm too focused in school and he'd tell me I should relax that I'm too focused on school at times it would get to me because I would think am I doing the right thing or not. Am I focusing too much on education and my own life that I don't really have time for going out or being with my friends…I realized...I pushed him away….not talking to him…I should have been more been more relaxed with my friends" (Student #5, female). Arguably, this student made the right decision to focus on school, and she likely knows this, but understanding how to navigate important friendships during busy moments in life may still be the lesson she needs to learn, in order to grow from this experience.

Similarly, another student explained how, as she approached the beginning of her sophomore year, she had been balancing multiple jobs to help her parents with bills and save for

a trip to Mexico. As a result, she became very sick and by the end of her first week of school she was in the hospital for two days. But her desire to be involved did not wane. Once she recovered from her illness, she continued working many hours, started a student club on campus, and became a mentor leaving late evenings for school work: "I had no time for homework because homework would always be my last thing. So sometimes I would be up to four in the morning and then I'd have class at nine…I got to a point where I was failing a class (Student # 11, female).

Continuum. As is often the case, coming to terms with a negative event can lead to growth. An example already discussed here is the student narrative discussed under *redemption.* When this student discovered her DREAMer status, her life momentarily stopped; however, it eventually led to the formation of a club where she realized she could help undergraduates who were in similar situations to hers. Likewise, there was the student highlighted in the contamination instance, the female who lost her close friendship because of her inability to balance school with her social life. This student later explained how she is now making time for her friends and feeling more balanced: **"**I'm trying to manage my time better so that I can get my work done and hang out with my friends so next term I can focus on school, but also focus on my friends and school" (Student #5, female). Finally, the student who became over-booked with extracurricular activities as well as work found a solution: "I cut hours from both of my jobs. And with the club, I told the girls that I couldn't be as involved right now because I have a lot going on. They understood. I met with my professors because I got to a point where I was failing a class and I also got a chance to go to sleep and rest from everything" (Student #11, female).

General Discussion

Research Questions

This mixed-methods explanatory sequential study sought to answer the following three questions: **Question 1:** What attributes define academic agency, and what are the forms of construct (discriminant, convergent, and predictive) validity? **Question 2:** Assuming academic agency exists along a continuum, is growth most related to age, pivotal life experiences, or both? **Question 3:** What role can institutions of higher learning do to create pivotal life experiences and connect students to past pivotal life experiences, in order to foster growth of students' academic capacity?

Study 1: Quantitative combined four scales with a total of nine variables. Among all the variables, academic agency was best reflected as a combination of three variables: leadership, academic familiarity, and the desire to prove oneself. The six remaining variables (academic self-appraisal, fair academic opportunity, family support, self-efficacy, ethnic identity, and grit) made more sense left as their own domains. The three variables making up academic agency showed high internal consistency, while allowing divergent (and convergent) validity with other dimensions.

In the past literature, academic agency remained elusive in terms of a unified definition. The literature paints a broad stroke and most often "agency" is simply used to replace the increasingly less popular "non-cognitive" or "soft skills" (Calkins, 2015). According to Vogt (2016), agency is *ownership, control, freedom, power, respect, trust, choice, intentionality, forethought, courage, tenacity, self-efficacy, grit, persistence, and souls on fire.* Vogt (2016) is part of Educause's *Next Generation Learning Challenge*, an education and technology organization that has dedicated tremendous thought and resources into unpacking the exact meaning of student agency. While agency may be some constellation of variables, it is less

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useful as a vague collection of factors, and there are benefits to move toward a more specific, somewhat universal definition. Given that agency-related interventions grounded in research remain at a minimum, there is a need for better definitions and better measurement. The present research is a first step toward a parsimonious definition and better construct validity. By examining how the construct is associated with other critical, clearly defined variables such as self-efficacy, grit, ethnic identity, and GPA we can work toward more precise measurement and interventions.

Question 2 examined whether academic agency existed along an age continuum, and whether it grew over time. Academic agency and its related dimensions show growth over time. Interestingly, in Study 1: Qualitative controlling for age, agency and its related variables continue to show an upward trend with the exception of ethnic identity which, consistent with theories of identity development, peaks in young adulthood (Erikson, 1968). Study 2: Qualitative further explored the relationship between academic agency and growth through reflection of personal stories that highlighted high, low and peak points in students' educational histories. When students were further asked to presently reflect on these moments, more often than not, themes of redemption emerged. The English Oxford Living Dictionary defines redemption as *a thing that saves someone from error or evil.* Applied to the context of this research study, the "thing" that "saves" students is their ability to make sense of a past, treacherous situation where the experience was used as a moment of growth, thereby "saving" them from making the same mistake again. Essentially, learning from the past and leveraging those experiences in the future—this is growth.

Question 3 asked whether institutions of higher learning could play a pivotal role in fostering growth along the suggested academic agency continuum. The answer is yes. Study 1: Qualitative demonstrated through regression analyses that academic agency (when top correlates

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are held constant) is likely to predict both self-efficacy and GPA. In other words, interventions that focus on growing the variables that comprise academic agency (as defined in this study) show promise for positively affecting how students feel about themselves academically as well as their GPA.

While this information is useful, no silver bullet exists, but a combination of coordinated efforts can support students in their growth of academic agency as well as other attributes such as grit, ethnic identity, and self-efficacy. The literature clearly lays out the challenges associated with universally defining and subsequently scaling an approach to assessing, activating, and growing student academic agency. The search for more precision in defining and measuring academic agency is certainly not a call for more automated, computer-based assessment, modeled after traditional cognitive measures of academic knowledge. Such attempts would likely be met with the same results as the SAT or ACT: it works well for a small percentage of the population, but not for the majority. Educators—and especially those who remain committed to the missions of broad-access institutions—will have to come to terms with the reality that in order to put students on a path for success and keep them there it will require more: more time, more care, more resources (i.e. cost), probably more ambiguity, and more research. Tools and strategies exist, but must be used in combination with each other, in an environment of participatory collaboration, and administered within a space that does not come with strict protocols or clearly-defined cut-off scores. Helping students understand their agency along with other key attributes requires professionals to operate as field researchers engaging in a process of qualitative and quantitative data collection, analysis, mapping, and interpretation for each student until they are able to do this for themselves…which arguably is the heart of agency. Once a program can help activate within students their own conception of leadership, demonstrate familiarity with academia, knowing how "it works," and believing they deserve to

graduate with a degree like everyone else, then success will have been achieved helping students move along the continuum of student agency.

Limitations of the Study

Perhaps the most significant limitation to this study was the attempt to investigate a topic that lacks a universal definition. Although this provided the opportunity to define academic agency, there is a challenge determining the "right" variables to include from the start.

A second limitation was the choice of scale for ethnic identity. In retrospect, the Multigroup Ethnic Identity Measure - Revised, which measured two domains of exploration and commitment within ethnic identity, may have provided deeper insight and connection into where students stand developmentally. With an eventual focus on students age 26 and younger, developmental and ethnic identity formation plays a vital role for students as they grow into adulthood. Understanding this dimension in other ways could have helped more deeply understand the role it plays in student outcomes.

Another limitation was size. More participants, especially in Study 1: Quantiative where participants were divided by age, could have provided deeper insight into trends by age.

A final limitation was that the two different university programs students were in were partially confounded by age. Younger students were in the HP3 program, and on average older students were in the more traditional program. There was some ability statistically to separate age from program, however, and it was found that age remained a stronger predictor, even when controlling for age.

Recommendations for Future Directions for Research and Implications for Practice

As the literature suggests (Yeager & Walton, 2011; Duckworth & Yeager, 2015), few researched-based measures and interventions exist targeting attributes such as disposition, thoughts, feelings, and beliefs in relation to academic success. What we do know with the limited research that is available is that interventions focused on academic agency, when they are applied, tend to be effective. The key is that the interventions must be highly contextualized to the environment and the students within those environments. Therefore, if colleges and universities are serious about integrating formal supports for growing academic agency and other non-academic variables such as grit, self-efficacy and ethnic identity in their students, they must commit to a team who can implement a study of applied research, in order to develop a process or protocol that is highly contextualized for their setting. Further, this system must then be implemented by professionals who are comfortable with iteratively improving the interventions over time, by analyzing and connecting multiple forms of data. Finally, this information must be disseminated and shared so other institutions can begin to construct and implement similar studies, in order to find the "right fit" for the local context.

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Appendix A: Non-Cognitive Survey

You are being invited to participate in a research study conducted by Brad Olson, PhD and Karen Galea at National Louis University, Chicago, Illinois. The study is entitled NLUs undergraduate students and their drive to set long-term goals: What motivates and scares them to succeed? The short term goal is to identify barriers and opportunities NLU undergraduates experienced or are experiencing at NLU through an analysis of noncognitive attributes. This data will better inform NLU on how to provide more targeted and individualized support to students so that they stay in college and graduate. With your consent, you complete a survey which is estimated to take approximately 20 minutes to complete.

If you choose to participate in this study, you will be asked to complete a survey consisting of two sections. Section 1 contains information such as gender, educational attainment of parents, country of origin, type of degree pursuing, GPA, etc. Section II contains fill-in-the-blank questions on grit, multicultural identity, self-efficacy, leadership and other traits referred to as "noncognitive". Noncognitive traits are different than cognitive traits, which in education are evaluated through your GPA and test scores.

Your participation is voluntary and you may discontinue your participation at any time without penalty. Your identity will be kept confidential by the researcher and will not be attached to the data. This data will be kept anonymous and confidential; however, it may be linked to other NLU data though completely confidential. Only the researcher will have access to all transcripts, taped recordings, and field notes from the interview(s). Your participation in this study does not involve any physical or emotional risk to you beyond that of everyday life. While you are likely to not have any direct benefit from being in this research study, your taking part may contribute to better understanding the level of support undergraduate students need to be successful at NLU.

While the results of this study may be published or otherwise reported to scientific bodies and used to affect admissions and student experience practices at NLU, your identity will in no way be revealed. Furthermore, all data will be kept in a secure, password protected location.

In the event you have questions or require additional information you may contact the researcher: Karen Galea, National Louis University, Karen.galea@nl.edu; 561-929-6591.

If you have any concerns or questions before or during participation that you feel have not been addressed by the researcher, you may contact the academic advisor, Dr. Bradley Olson, 312-261-3464; bolson@nl.edu or Dr. Shaunti Knauth, 312-261-3526 shaunti.knauth@nl.edu Chair of NLU's Institutional Research Review Board. NLU, 122 South Michigan Avenue, Chicago, Illinois 60603.

1. Writing your first and last name in the box below confirms your consent to participate in this survey.

	Strongly Agree	Agree	Disagree	Strongly Disagree
A. I have spent time trying to find out more about my ethnic group, such as its history, traditions, and customs.	◯	◯	◯	◯
B. I am active in organizations or social groups that include mostly members of my own ethnic group.	◯	◯	◯	◯
C. I have a clear sense of my ethnic background and what it means for me.	◯	◯	◯	◯
D. I think a lot about how my life will be affected by my ethnic group membership.	◯	◯	◯	◯
E. I am happy that I am a member of the group I belong to.	◯	◯	◯	◯
F. I have a strong sense of belonging to my own ethnic group.	◯	◯	◯	◯
G. I understand pretty well what my ethnic group membership means to me.	◯	◯	◯	◯
H. In order to learn more about my ethnic background, I have often talked to other people about my ethnic group.	◯	◯	◯	◯
I. I have a lot of pride in my ethnic group.	◯	◯	◯	◯
J. I participate in cultural practices of my own group, such as special food, music, or customs.	◯	◯	◯	◯
K. I will be able to achieve most of my education goals that I have set for myself at NLU.	◯	◯	◯	◯
L. I will be able to successfully overcome many education challenges at NLU.	◯	◯	◯	◯

	Strongly Agree	Agree	Disagree	Strongly Disagree

Please write-in anything else you would like the researchers to know.

[   ]

Section II: Demographic and Education Data
The following section asks questions about your personal background.

5. How old are you? (Write your age below.)

[   ]

6. Which race/ethnicity best describes you? (Please choose only one.)

( ) American Indian or Alaskan Native

( ) Asian / Pacific Islander

( ) Black or African American

( ) Hispanic

( ) White / Caucasian

( ) Multiple ethnicity / Other (please specify)

[   ]

7. Do you speak more than one language?

( ) Yes

( ) No

8. In which language do you prefer to speak?

[   ]

9. Were you born in the United States? [If yes, go to #13, if no, go to #10]

( ) Yes

( ) No

10. (If you were not born in the USA) In which country were you born?

11. (If you were not born in the USA) At what age did you come to the United States? Age in years (e.g. 18).

12. (If you were not born in the USA) Which of the following best describes your current immigration status?

◯ US Citizen

◯ Undocumented (not-DACA)

◯ Undocumented Status (DACA)

◯ Resident

◯ Refugee/Asylee

◯ Temporary Status (e.g., Work or Student Visa)

13. Were one or both of your parents born in the United States?

◯ Yes

◯ No

14. In which country was your mother born?

15. Which of the following best describes your mother's current immigration status?

◯ US Citizen

◯ Undocumented Status

◯ Resident

◯ Refugee/Asylee

◯ Temporary Status (e.g., Work or Student Visa)

16. In what country was your father born? (Write the country below.)

17. Which of the following best describes your father's current immigration status?

( ) US Citizen

( ) Undocumented Status (including DACA)

( ) Resident

( ) Refugee/Asylee

( ) Temporary Status (e.g. Work of Student Visa)

18. Have you been enrolled as an undergraduate college student in the last year?

( ) Yes, a 2-year public community college

( ) Yes, a 2-year private community college

( ) Yes, a 4-year public college or university

( ) Yes, a 4-year private college or university

( ) No, I have not been enrolled in a community college or 4-year college or university for longer than 12 months

( ) No, I'm currently taking a break, but have been enrolled in a community college or 4-year college or university in the past 12 months

19. What is your gender-identity?

( ) Male ( )

Female

( ) Transgender

20. What is the highest level of education your parents'/caretakers completed?

	Primary/Elementary School (5th grade)	Junior High/Middle Schools (8th grade)	High School/GED (12th Grade)	Some College	Associated Degree	4-Year College Degree (BA/BS)	Master's Degree (MA/MS/MSW)	Advanced Degree (PhD/MD/MBA/JD)
Mother/Caretaker 1	( )	( )	( )	( )	( )	( )	( )	( )
Father/Caretaker 2	( )	( )	( )	( )	( )	( )	( )	( )

21. Please indicate your household income (include total income of all adults living in your household):

◯ Under $24,999

◯ $25,000-$49,999

◯ $50,000-$99,999

◯ Over $100,000

The next section is about your college program at NLU.

* 22. When did you start attending NLU?

◯

Winter/2016 ◯

Fall/2015

◯ Summer/2015

◯ Other (please specify)

[   ]

23. How important were each of the following factors in your decision to attend NLU?

	Not at All Important	Slightly Important	Somewhat Important	Very Important	Extremely Important
Cost	◯	◯	◯	◯	◯
Class Size	◯	◯	◯	◯	◯
Location	◯	◯	◯	◯	◯
College Ranking	◯	◯	◯	◯	◯
Flexible Class Schedule	◯	◯	◯	◯	◯
Friendly Climate for Students from Diverse Backgrounds	◯	◯	◯	◯	◯

Other (please specify)

[   ]

* 24. How many college credits have you completed?

◯ 0-24 units

◯ 25-59 units

◯ 60-89 units

◯ 90+ units

* 25. What is your current major? *Please write "undeclared" if you haven't selected a major.*

[   ]

* 26. What is your average GPA?

[   ]

27. What is your current enrollment status?

◯ Part-Time [Go to Q28]

◯ Full-Time [Go to Q29]

28. (If part-time) What is the most important reason you are enrolled part-time?

◯ I have to work full-time to support myself.

◯ I have to work full-time to support my family or others.

◯ I do not have access to financial aid.

◯ I could not get into the classes I wanted or needed.

◯ Other (please specify)

[   ]

* 29. Is this the first college you have attended?

◯ Yes [Go to #32]

◯ No, I transferred from a four-year college. [Go to #30/31]

30. (If transferred) What was the MOST important reason you transferred from your last college?

◯ There was a stronger sense of community for me at NLU.

◯ I was admitted into a four-year university.

◯ It was more affordable.

◯ The location was more convenient.

◯ Other (please specify)

[   ]

31. (If transferred) How many colleges have you attended prior to your current one?

[   ]

32. Since you started college, have you stayed continuously enrolled?

( ) Yes

( ) No [Go to #33/34]

33. (If No) How many terms have you taken off?

[   ]

34. What was the MOST important reason you took time off from college?

( ) I changed my career plans.

( ) I wasn't doing as well academically as I expected.

( ) I felt like I didn't "fit in" at my college.

( ) I had family responsibilities.

( ) I had financial difficulties.

( ) Other (please specify)

[   ]

Thank you very much for taking the survey!

Appendix B: Life Story Interview Protocol

A. Academic attitudes and desire to achieve a bachelor degree.

1. Chapters of Life/Education:

I want you to think about your past educational "life" as if it were a book, and you are the storyteller. Imagine that the book has a table of contents containing the titles of the main chapters in the story. Very briefly, what are the main chapter titles, beginning with your earliest educational memory. This could be a memory with a family member or perhaps your first day of pre-K.

Give each chapter a title, tell me just a little bit about each chapter. Say a word or two about how we get from one chapter to the next. I am particularly interested in the elements of each chapter that led you to where you are today, as a college student at NLU.

2. Going to College:

Please explain a situation in which you can recall from your childhood or adolescent-aged years when you first began to think about going to college. This can be either emotionally positive or negative. Describe in detail what took place.

- How did your early understandings of college change or evolve over time?

- What makes this memory stand out? What trigged your thoughts today about this specific memory? Were there others involved? What were you thinking and how did the idea of "college" make you feel?

- Why was/is this memory important? Why has this event had such a significant impact on how you think about college today? How has this affected who you are today?

3. High point scene:

This scene is a high point, or what some people might call a "peak experience." This would be an event which you experienced in your formal schooling that you thought was positive or wonderful and you now look back on as a high point.

Please choose one scene like this in your life story in which you experienced positive feelings of some sort, such as joy, excitement, happiness, or inner peace. Describe it for me in detail. Make sure to tell me what led up to the scene, so that I can understand it in context.

What happened in the scene? Where and when did it happen? What were you thinking and feeling in the event? Why is it an important event? What impact has this event had on who you are today? What does it say about your education experience?

4. Turning Point:

In looking back on your educational experience, you may be able to identify particular "turning points" – episodes through which you experienced an important change in your thinking about education or yourself as a student.

Please choose one key turning point scene and describe it in detail. If you feel your life story contains no clear turning points in your thinking about education, then describe a particular episode in your life that comes closer than any other to qualifying for a turning point – a scene where you changed in some way.

Again, please describe what led up to the event, what happened in the event, where and when it happened, who was involved, what you were thinking and feeling, and so on. Also, please tell me how you think you changed as a result of this event and why you consider this event to be an important scene in your life story today.

B. Multicultural Identity, Academic Capital & Self-Efficacy.

5. Multicultural Identity:

Multicultural identity is an individual's sense of connection to one's race, ethnicity, gender, native language, religion or any other group. It is how much you identity and how much you connect to others in your same ethnic group.

- Can you explain a moment or event in your adolescent or teenage years at school or during a time when learning was taking place, when you felt proud to be part of your ethnic group?

- Can you recall a time when you were an adolescent or teenager when you had negative experience in school based on your race, ethnicity, gender, native language, religion or any other group with which you identify? How did you feel? How did you react? What did you do?

6. Academic Capacity.

Academic Capacity is the ability to be successful in formal education (i.e. high school or college) and to demonstrate your learning through completing assignments, doing well on tests and getting help when you need it in school. Academic Capacity is also about your own personal ability to figure out how to get the help you feel you need to be successful in school. It also has a lot to do with your academic environment and how easy or difficult it is for you to find what you need in order to do your best.

- Can you recall a time when you were in middle or high school (or college if an adult) when you took on a leadership role? This could be something as formal as being president of a school club or a sports team but could also be if a teacher asked. Do you recall how this made you feel? Did you like the responsibility? What did you do? Who was with you?

- As an adolescent or teenager, when you needed help with school work, who did you typically turn to? Or, did you try to figure things out on your own? When there were regular tutoring schedules available, did you take advantage of them?

- As an adolescent or teenager, how supportive was your family? Do you recall certain family members pushing you? Were there family members who did not support your? What was this like for you? How did this make your feel?

- How confident are you that you will graduate? Will you graduate within 4 years (or "on time")? More than half of American undergraduate students take 6 years to graduate, are you confident it will take you 6 or less years? Why? Are there people in your life who will support you through this? Who are they? Can you give me specific examples of how they support you?

7. Self-Efficacy and GRIT

Self-efficacy is also linked to stronger perseverance of effort.

The survey you took also showed us that students who scored high on self-efficacy tended to persevere longer. Self-efficacy is the belief that you can be a success. So, the students who scored high on self-efficacy believe that they have the ability to be successful at NLU. They also believed that they tend to finish things they set out to start.

- Do you think you will be successful at NLU? What are your reasons for your answer? Can you think of a specific example in your life to support your statement? How did this moment make you feel?

- Do you finish what you start? Can you think of a long term project, something lasting more than 3 months, that you started and successfully completed? Describe the project and give details around what it was and what it was for.

- What was it like to work on this long-term project? Were there interruptions? How did you force yourself to stay on track? How did you feel when you completed the project?

- Would you consider graduating from high school finishing a long-term success? Would you consider completing your first year of college a long-term success?

- What are some long term successes you hope to complete in your life?

8. NLU Environment (Context)

- Tell me about the environment at NLU. What is the community like here for you? Let's first focus on the other students you study with. What is it like for you to be part of a cohort model? What are some pros and cons? Without naming any names, what can you tell me about the group attitude? What about your instructors and coaches?

- How would you describe the P3 community to someone who has not experienced it? What are some characteristics? Such as, safe, empowering, competitive, fun, etc. Have you ever experienced a community like this? Is it similar or different from other communities you've been a part of? In your detailed answer, feel free to compare it to any other communities that you think are appropriate.

- Would you say that YOUR perceptions of the P3 community is pretty similar with those of OTHER students in the community? Staff members? How would you say your perceptions are similar or different from theirs?

9. Barriers/Challenges/Needs

Every organization and community, even the best, has challenges associated with it, and there are resources it needs to make the community a better place.

- What are the most serious barriers, challenges and needs you see in the P3 community? I am interested in needs and challenges both of the physical or tangible kind (for example, not enough desks, rooms are too cold, etc.) but also the social and psychological kind (for example, I find it hard to connect with other students, I don't feel like the counselors "get me", etc.).

- How do these barriers impact you? If you are not impacted by anything, why? Do you see others being impacted? If so, how are they impacted? If not, why do you think?

10. Assets/Strengths

Every community has more or less obvious forms of strength or assets. In terms of the P3 community (both students and NLU employees), members have skills, abilities, knowledge, and forms of commitment.

- What are some of the resources that exist at NLU that make your student experience positive? Be specific and list the strengths of the program.

- Are there specific supports you access regularly like tutors, instructors, or coaches? What about the library and computer labs? What are some other resources you access that help you be the best student you can be?

6. Alternative Story/Idealized Future Scene

Now I am going to ask you to do something a little different. Your personal story in relation to your educational experience is not only about the past as you remember it, but it also includes the future as you imagine it today.

Please imagine for a moment a very different life story than the one you now live.

Imagine the future now, rather than the past. I want you to imagine a scene from the future in your life, once you have earned your degree. This would be an event or happening that could realistically happen in your life, in your community, or on the job - something in the future after you have earned your degree. Imagine just such an event and describe what it might be like.

- What might happen? Who might be involved? What might you be thinking and feeling in this future event? Why would this event be important? What impact might this imagined future event have on you, if indeed this event were to happen in the future? What impact would it have on your family?

- Imagine that you were not in school pursuing a degree. What would that life be like? How would it feel? How would your family react?

- What do you think you would be doing if you were not in school?

7. Conclusion.

Of all the questions, I asked so far, is there anything I didn't ask that you would like to tell me?

Appendix C: Codebook of Parent and Child Codes

Codebook of Parent and Child Codes

Code	Child Code 1	Child Code 2	Child Code 3	Child Code 4	Child Code 5
Academic Capacity: Leadership					
Academic Familiarity					
Agency vs. Communion*	Agency	Communion			
Alternate Story: What if you were not pursuing your degree?					
Continuum*					
Fair Academic Opportunity					

Code	Child Code 1	Child Code 2	Child Code 3	Child Code 4	Child Code 5
Family Support					
First memory of college going					
Great quotes					
Grit	Consistency of Efforts	Perseverance of Effort			
Life Story	First memory of college	Low Points	Peak Points	Turning Points	What did you learn from your low point
Multiethnic Identity	Negative ME Experience	No Impact at all	Positive ME Experience		

Code	Child Code 1	Child Code 2	Child Code 3	Child Code 4	Child Code 5
NLU Community	What would you change?	What wouldn't you change?			
Positive Academic Self Appraisal					
Redemption vs. Contamination*	Contamination	Redemption			
Scene in the future with degree					
Self-Efficacy					

*Note: * denotes codes added after fifth interview.*