

Resilience as a Predictor of Variations in Freshmen Retention

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As institutions of higher learning struggle to retain their incoming freshmen beyond the first year; research theorizes that “at risk” students are more vulnerable to depart for financial reasons among other stressors. The study looks at the ability of freshmen students to navigate beyond their first year and their capacity to build resilience through student and faculty engagement. This mixed method study seeks to better understand the relationship between resilience and variations in freshmen retention among students at a private university in Queens, New York. An examination of how resilience impacts retention is explored both quantitatively (stepwise multiple regression analysis) and qualitatively (focus group questionnaire). The research has shown that as levels of student engagement increase, so does student resilience and retention in higher education. The qualitative results are consistent with the literature in support of resilience training. The implication of this research is intended to provide insight to advisors and faculty working with prospective freshmen students towards a better understanding of the impact of resilience on retention.

Keywords: resilience, retention, persistence, engagement

Introduction

A report from the National Center for Education Statistics (2018) stated that for all first-time, full-time degree-seeking students who enrolled at a 4-year degree-granting institution in fall 2015, the retention rate (i.e., the percentage of students returning the following fall) was 81 percent. Retention rates were reported higher at institutions that were more selective (i.e., those with lower admission acceptance rates), regardless of institutional control (public, private nonprofit, or private for-profit). At the least selective public institutions (i.e., those with open admissions), the retention rate was 62 percent, and at the most selective public institutions (i.e., those that accept less than 25 percent of applicants), the retention rate was 96 percent.

Similarly, the retention rate for private nonprofit 4-year institutions overall was 82 percent, ranging from 64 percent at institutions with open admissions to 95 percent at institutions that accept less than 25 percent of applicants. The retention rate for private for-profit 4-year institutions overall was 56 percent, ranging from 50 percent at institutions with open admissions to 100 percent at institutions that accept less than 25 percent of applicants. The reality that only 40.3% of students entering college will persist to complete their bachelor’s degree within four years and another 20% or so within six years is frightening.

When students drop out of college as freshmen, they may not only compromise their future but also waste the universities’ resources (Alarcon and Edwards, 2013). The purpose of this study is to determine why some students fail to persist and matriculate while others persist to graduation.

One of the concerns facing higher education is the difficulty that students experience in their transition between high school and college, which can lead to low achievement during their freshmen year and subsequently result in their departure. Vincent Tinto, a pioneer in the area of student retention, identified three major sources of student departure: (i) academic difficulties, (ii) the inability of students to resolve their educational and occupational goals, and (iii) their failure to become or remain incorporated in the intellectual and social life of the institution (Tinto, 1993).

The first year is not easy and presents a challenge for many students. Tinto’s Retention Theory (1987) highlighted several key factors that are considered responsible for student attrition. These are a feeling of isolation, difficulty adjusting to a new environment, and an inability to integrate new information and knowledge with previous information and knowledge. If students make it through the first year successfully, their chances to persist will improve considerably” (Levitz and Noel, 1990).

Tinto (1993) posited that over half of all freshmen will leave before they complete their first year of college. According to the Consortium for Student Retention Data Exchange (2002), more than half of all students who withdraw from college do so during their first year. Also, the U.S. News and World Report (2013) reported that as

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many as one in three first-year students will not make it back for their sophomore year. The reasons provided run the gamut from family problems, loneliness, and academic struggles to a lack of money.

These reasons are referred to as stressors. Students who are unable to overcome the stressors of transitioning into college usually terminate their education in their first year. A synthesis of research studies on student persistence by Upcraft, Gardner, and Barefoot (2005) also noted that “the largest proportion of institutional leaving occurs during the first year and before the second year.”

When examining first-year student persistence, it is prudent to look at what the research and literature tell us about their pre-college characteristics and the influence it has on their success. A review of the literature suggests that prior academic achievement, socioeconomic status, gender, age, financial aid, race/ethnicity, parental support along with the student’s commitment to a degree can greatly impact whether the student will persist beyond the first year. This information about first-year students should serve as an important starting point for institutions of higher learning to better strategize how to help their first-year students persist.

The first-year advising office, the source of recruitment for this sample, has reported that attrition is highest amongst freshmen students with undeclared majors. These students with undeclared majors are considered “at risk” because they have no clear directive as to a major, for which Noel (1985) noted that “the uncertainty about what to study is the most frequent reason talented students give for dropping out of college.”

Because the first year is very critical, this study intends to explore the impact of resilience on first-year students persisting to the second year and unto graduation. The results from the study will help to identify the characteristics of “at-risk” students even before they begin their educational journey at any institution of higher learning, i.e., before that critical transition point from high school to college.

Literature Review

Research into resilience began in the 1970s when researchers studied children who managed to progress through normal development, despite living in highly stressful environments (Wagnild, 2009). Resilience, as measured by the Resilience Scale, was then a relatively new term in psychology. Today it is among a growing field of research in higher education and is most commonly referred to as the maintenance of positive adaptation by individuals, despite experiences of significant adversity (Brown, Benard and D’Emidio-Caston, 2000; Luthar, Cicchetti and Becker, 2000; Rutter, 2013; Wagnild, 2014).

Dr. Michael Rutter has written extensively on resilience and has been researching resilience since the late 1970s through to 2015. The years between 1950 and 2014 were early emerging research in resilience. These abovementioned timeframes are specifically selected to capture the early emerging research in resilience and to identify the current trends.

What is resilience? Richardson (2002) describes resilience as a driving force that allows a person to progress despite adversity and disruptions. Resilience is also the ability to overcome obstacles by meeting challenges. These obstacles can include but are not exclusive to areas of finance, lack of academic college preparation, administrative frustrations, and social situations as might occur in a dormitory (Miller, 2006).

The resilience construct is said to be internal, which helps to explain why some students transition well within the collegiate environment, despite their childhood history and “stressors,” while others do not. And although this construct has been a topic of interest in higher education, it has only recently been aggressively applied to college students. This decision offers great promise to better understanding the likelihood of college students persisting for degree attainment.

A 2004 study on the characteristics of resilience among university students by (Pidgeon, A.M., et al., 2014), examined a sample of 214 university students recruited from Australia, the United States of America, and Hong Kong universities who completed measures of resilience, perceived social support, campus connectedness, and psychological distress.

The instrument used was the Resilience Scale (RS) developed by Wagnild and Young. Results of a one-way between groups multivariate analysis of variance revealed that perceived social support, campus connectedness, and psychological distress accounted for a significant proportion (36%) of the variance between the high and low resilience groups of university students. University students with low levels of resilience reported significantly lower levels of perceived social support, campus connectedness, and higher levels of psychological distress, in comparison to university students with high levels of resilience. Findings from this study have offered important implications for the development of resilience-based interventions among university students.

Some researchers perceive retention as a function of the students’ emotional and social needs (Morrow and Ackerman, 2012; Parker et al., 2006; Sparkman, Maulding and Roberts, 2012). Most students’ psychological stability is challenged during the transition to a new school, which can either be helpful or harmful for the student. They often cannot handle the mental strain of moving, making new friends, managing a large class load, along with extracurricular

opportunities. It is at this point that resiliency becomes a deciding factor for many students (Parker et al., 2006).

Those students who can manage the social and emotional demands of college learning are said to demonstrate resilience (Hartley, 2010). Cabrera and Padilla (2004), suggests that educational resilience pertains to students who previously struggled academically but were able to overcome their difficulties and succeed in school. A later study conducted by Clauss-Ehlers and Wibrowski (2007) found that enhancing educational resilience is an important form of intervention.

Clauss-Ehlers and Wibrowski (2007) suggest that educational resilience is nurtured through academic programs that include a strong, consistent and supportive counseling component to address both academic and life issues. Hartley (2011) provides supporting evidence that inter and intrapersonal resilience factors are important to academic persistence in higher education. In fact, by increasing a student's ability for resilience will help the student integrate protective factors within their college lifestyle leading to improved college persistence (Hartley, 2010). Hartley describes these protective factors as active coping skills, peer support, counseling, psychosocial support, and academic support. Hartley further states that all postsecondary institutions have an infrastructure for providing access to these protective factors. The extent, therefore, to which students can cope with stressors during the first year of college is said to be directly related to their academic resilience (Zajacova et al., 2005).

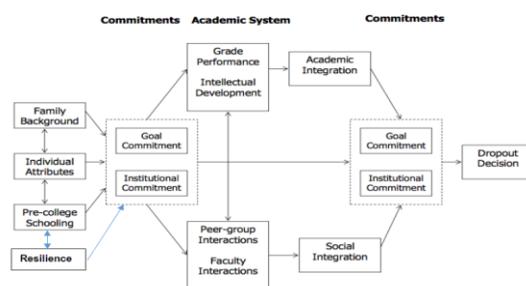
Today's classroom can provide great opportunities for academic resilience through faculty who can connect students' value of work, struggle, persistence, and resilience to practical solutions. This is achieved when the faculty utilizes the assistance of curricular strategies such as holistic education and teaching emotional intelligence, life balance, and wellness within a caring and learner-centered education environment. With the help of these strategies, faculty can help students reframe their experiences from viewing it negatively to seeing it as a learning experience. Ask probing questions, such as: What did you learn? Has this experience made you more knowledgeable and stronger?

Conceptual Framework

Vincent Tinto's Student Integration Model (Tinto, 1975) attempts to understand which factors/antecedents contribute to a student's decision to drop out of a university based on their social and academic integration. Further research by Arnekrans (2014) looked at modifying Tinto's model to include resilience as an initial commitment or trait that the students bring with them into an institution of higher education. Arnekrans suggests that these traits help to influence the

way the student can integrate into the university, both socially and academically, which in turn, may affect their decision to persist or to leave the institution. Arnekrans further asserts that those students who exhibit resilience are more likely to persist to the second year of college. For this study, the investigator added the resilience trait to Tinto's Integration Framework as one of the factors/antecedents impacting commitments (as shown in Figure 1).

Figure 1 Tinto's Integration Framework (modified)



The Resilience Core Characteristics

Wagnild (2014) states that resilient persons experience the same difficulties and stressors as everyone else, but the difference is that they have learned how to handle the difficulties they experience. Resilient individuals are confident in their ability to persevere because they have done so before. Each time a person rises above adversity, they learn from the experience and grow stronger as a result. The Resilience Core characteristics are: A Purposeful Life, Self-Reliance, Equanimity, Perseverance, and Existential Aloneness. The focus group sample had moderate significance results in accordance with the Resilience pillars as explained below.

A Purposeful Life

Wagnild (2014) suggests that a Purposeful Life (aka Meaning) is the most important characteristic of resilience. Life without purpose is futile and aimless. Purpose provides the driving force in life. When students experience inevitable difficulties, their purpose pulls them forward.

Self-Reliance

The Self-Reliance characteristic represents a clear understanding of capabilities and limitations. Students who are self-reliant believe in themselves; they recognize and rely on their strengths and capabilities and

draw upon past successes to support and guide their actions (Wagnild, 2014).

Equanimity

Wagnild (2014) defines equanimity as “individuals having a balanced perspective of life and experiences.” Resilient students have learned to draw on their own as well as the experiences of their peers to guide their responses.” For example, the act of speaking with advisors is one way in which students can draw on the experiences of others whether negative or positive, to strike a balance.

Perseverance

Wagnild (2014) defines perseverance as “the act of persistence despite adversity or discouragement.” The determination to keep going despite difficulties, discouragement, and disappointment is called perseverance. Without guidance or interactions, many students are not able to comprehend the benefits of their academic pursuits, hence their failure to persevere.

Existential Aloneness

Wagnild (2014) suggests that “resilient individuals learn to live with themselves. They become their own best friend. Students who heavily rely on other people to speak or take actions in their interest are often students who drop out. The assumption is that students who cannot function on their own to handle basic things such as registration or homework assignments by the third semester are setting themselves up for failure.

Resilience Scores

The Resilience Scale™ scores range from 25 to 175. Of the 250 students, 96 obtained a moderately high score, 91 a moderately low score, 26 a high score and 37 a low score. These scores are important determinants to predict which student has a moderate to high resilience score (not at risk) to persist beyond the first year and which student has a low to moderately low score (at risk) to persist beyond the first year.

“Not at Risk” or Resilient Students

“The resilient child is defined as one who ‘works well, plays well, loves well and expects well’ (Bernard, 1997). Researchers have observed that students with resilience have learned social and emotional competencies and are therefore more confident and energetic about their learning abilities. They tend to try harder, motivate themselves, set goals, organize their approach to study and perform better. Resilient students believe that difficult experiences provide opportunities to learn (Banyard and Cantor, 2004).

These competencies help students to successfully meet academic requirements with poise and self-confidence and increase the likelihood that first-year college students will thrive despite the big change from the high school environment to the world of the college campus. Banyard and Cantor (2004) determined that first-year students who demonstrated a high level of resiliency were more likely to adapt to the college environment than their less resilient peers. Other research has shown that resilient students demonstrate superior cognitive and academic success, as well as a propensity to cooperate with teachers and spend more time studying (Garza, Bain, and Kupczynski, 2014).

“At Risk” or Non-Resilient Students

Currently, 25% to 35% of students enter school with factors that place them at risk of failing socially and academically. Such risk factors include poverty, developmental delays, poor physical and mental health, exposure to biological and psychological trauma, family indifference, neighborhood violence, parents’ drug, and alcohol abuse and family and parental distress and dysfunction.

Tinto (2011) suggests that the abovementioned factors are just a few of the reasons why students are not retained, especially when there is a lack of resilience. For these reasons, the efforts of student retention will require much more attention to this group and a more timely and efficient allocation of resources for early academic and social support intervention. Such intervention could take the form of in-depth assessment, progress tracking, tutoring, advising, appropriate class assignments, study group assignments, personal counseling and most important of all “mentoring.”

A Pilot Study: Mentoring of “At Risk” Students

The investigator explored the impact of mentoring on resilience in collaboration with an ongoing pilot project at the university. The mentoring program called SAFE (Student and Faculty Engagement) was born in 2009 to VC University and matured into an experimental program in 2011. Initially, first-year students were selected to be part of the project SAFE by their decile index. Decile index scale ranges from 1-10 and identifies which students are potential retention risks. Decile 1 is the highest retention risk, and Decile 10 is the lowest retention risk. Students selected for project SAFE had a decile index of 3 and 4, which makes them “moderately at risk” for attrition. The decile index is created by considering factors such as the students’ background characteristics, pre-college preparation, financial support and academic program to name a few.

After a review of subsequent retention data in 2011, a retention concern began with students who had home residencies in select states. Subsequently, Project SAFE changed its selection criteria from using a decile index to using home state residency (namely, first-year students from California, Connecticut, Florida, Massachusetts, Maryland, New Jersey, Pennsylvania, Texas, and New York (specifically Suffolk County and Upstate).

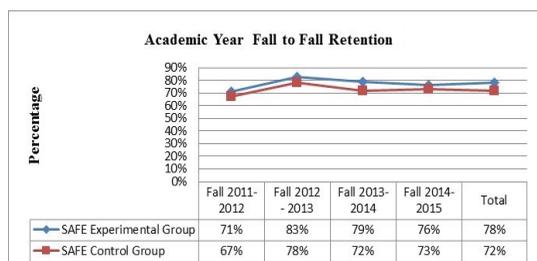
After a potential cohort is identified, the students are divided into two groups (experimental and control). Students in the experimental group are then notified of their ability to participate in project SAFE via a postal letter to their home address, and a phone call from their assigned mentor. The students in the Control group had the same characteristics of the students in the experimental group, but they were not assigned a mentor.

Project SAFE focuses on engagement driven mentoring. Engagement is about not doing something “to” a student but rather “with” a student. The investigator considers this a huge step in the direction of assisting “at risk” students to navigate the waters of campus life. Also, the SAFE program has received positive feedback from both parents and students on how the extra attention they received became a turning point for them in deciding to return to VC University.

This pilot study is underscored by the investigator to show the connection between mentoring and resilience and also to show how both variables can influence retention outcomes. When resilient children are asked what helped them to succeed against the odds, the most frequently reported responses are “help from their informal networks, extended family, peers, neighbors, and mentors -- rather than the activities of paid professionals (Newman, 2002).”

The literature on mentoring further suggests that mentoring develops resilience in students. For these reasons the investigator considers Project SAFE to be an excellent strategy to engage and retain through mentoring, a population of students that are considered “at risk.” The facts speak for themselves in the SAFE retention numbers for the academic year 2011-2015 (see Figure 2 below).

Figure 2 SAFE Academic Year (Fall to Fall Retention)



Can resilience be learned?

The million-dollar question becomes “can resilience be learned?” to which the research gives a resounding YES. There are some programs designed to develop, nurture and teach resilience skills. For example, the American Psychological Association has developed a training program called the Road to Resilience which trains students to develop resilience or “strengthen the mental muscle that everyone has,” using “bounce back” strategies. Studies conducted from 2009 through 2012 by Dr. Gail Wagnild and her team of researchers gave birth to various resilience-building programs for students. These programs include group exercises, self-reflection, teacher guided learning, community participation, and support. Materials include teacher’s manuals, student workbooks, and activities to help students recognize, build, and strengthen their resilience. Based on the supporting literature, the investigator believes that retention is attainable if institutions of higher learning would first take the time to build and nurture resilience among their freshmen population.

The act of building resilience in the classroom create students who can respond to challenges and setbacks. Resilience is an important goal in education, if not the goal. When students have resilience, they are open to learning because they believe that they can learn. They are receptive to assistance because it is not a criticism of their abilities. They are comfortable not understanding concepts immediately because they see learning as a pursuit of knowledge. They appreciate that motivation and effort are as important as knowing how to do something.

Resilience is grounded in the belief that all humans possess inborn developmental wisdom and seeks to contextualize how teachers can tap into this wisdom (Benard, 1997). In her book, *Fostering Resiliency in Children*, Benard states: “We are all born with an innate capacity for resilience, by which we can develop social competence, problem-solving skills, a critical consciousness, autonomy, and a sense of purpose.” Researchers increasingly view resilience not as a fixed attribute but as an alterable set of processes that can be fostered and cultivated (Masten, 2001; Pardon, Waxman and Huang, 1999). Researchers also emphasize that the interactive processes between the individual and environment and between risk and protective factors are the crucial underpinnings in developing resilience.

When students do not exhibit resilience in learning, we must not only encourage them to be confident and “keep trying,” but we should also teach them about resilience and perseverance. If taught these values, students will no doubt have the “grit” to persist beyond the first year. However, before we can teach and nurture resilience in the students, we must first “train the trainers” in the form of the advisors of freshmen

students. If advisors are trained in resilience, they will then be in a better position to nurture resilience among their freshmen students.

Teaching Resilience

Having resiliency taught on the college campus is extremely important. Fabis (2005) pointed to two studies in answer to the question of “can resilience be learned?”

The first study called “Bounce Back” was a resilience-based curriculum program implemented by San Diego State University in 2007. This study used two theories (positive psychology and resilience), in which students of small and varied sample sizes on academic probation (stress factor) learned about their strengths and develop strategies to address their struggles.

The idea of the program was to meet with small groups of students on academic probation once a week for 50 minutes and a duration of 15 weeks throughout the semester. Using a resilience-based approach, San Diego State University teaches various academic skills such as time management, test taking, and study skills. The program was designed to experientially teach students on probation how to increase resilience by strengthening their ability to bounce back from this adversity.

The Bounce Back Retention Program (BBRP), a semester-long voluntary course for students on academic probation (AP), was the first phase of a longitudinal study in the spring of 2007 with a total of 960 freshmen students at San Diego State University. Findings reveal AP BBRP Credit students earned: higher GPA's improved academic outcomes and fewer departures from the university. The program demonstrated significant potential for further exploration (San Diego State University Bounce Back Retention Program, 2007).

The second study was conducted in 2010 at the University of Utah in concert with Fabis 2005 study. Resilience Training was included in the undergraduate and graduate courses at the University. All participants were students from a major university in the West who participated in one of three self-selected classes. Two intervention classes focused on stress management interventions. One was a personal resiliency training class. The other was a conventional stress management instruction class. A healthy lifestyles class acted as a comparison group.

A survey consisted of 86 items and a sample size of 109 students. Of the sample, 82 were eligible for the data analysis (comparison group, N = 25; stress management, N = 33; resiliency training, N = 24). Both intervention groups and the comparison group were pre-tested at the beginning of the semester. Subsequently, post-testing was done about three weeks before the semester ended. The resiliency training and conventional stress management instruction took place over 13 weeks with three collegiate hours of instruction per week. Those

students who participated in a personal resiliency training class had a significantly lower state of anxiety than those students who did not participate in the comparison group.

Today, these recognitions have given rise to resilience in education programs such as Student Curriculum on Resilience Education (SCoRE®). They are one of many research-based resilience education programs established to help students cope with the personal, social, and academic challenges of college life. The curriculum was developed by 3C Institute and LEAD Pittsburgh in collaboration with ten colleges and universities. These programs are established on the evidence that learning to be resilient is imperative in life even for the brightest, best-adjusted student who transitions from high school to college, and that the lessons learned in resilience will help to sustain them for the rest of their lives. SCoRE suggests that if resilience education is incorporated early into college life, it will benefit campuses in many ways because campuses would avoid a certain amount of increased individual difficulties with students, which causes a lot of “wear and tear” to college campuses (SCoRE, 2016).

The knowledge that resilience is teachable to college students offers exciting promise for student retention. It is this promise that forms the catalyst for exploring the possibility of creating structures and opportunities for building undergraduate resilience. A move in this direction would represent an important step for institutions of higher learning interested in developing tools to ensure student success and retention. Because the supporting literature suggests that resilience impacts retention, the following research questions were developed.

Research Questions

Research questions addressing the quantitative section in this study consists of the following three questions:

Research Question 1. Is there a significant relationship between retention at the end of the first year of study and resilience scores of freshmen students?

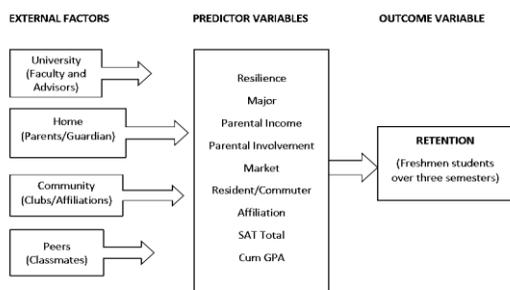
Research Question 2. Can retention be predicted by a combination of resilience scores, SAT scores, GPA scores, Major (declared vs. undeclared), Market, Commuter vs. Resident, Affiliations with social groups, and SES? What is the relative strength of each predictor?

Research Question 3. What factors do currently enrolled freshmen students identify as influential in their decision to persist with their college education?

Research Design

A mixed method design was used to combine a quantitative and a qualitative approach as a means of leveraging the results of the data (survey) with the results of the voices (focus group). The goal is to obtain a clearer understanding and interpretation of the outcome assessments. The variables used as potential predictors are as shown in Figure 3.

Figure 3 Research Design Model



A stepwise multiple regression analysis is used to interpret the data. This method uses an automated process to build a model by successively adding or removing variables based solely on the t-statistics of their estimated coefficients (tables 3, 4 & 5).

Population and Sample

The sample size consisted of 250 freshmen college students (N=250) at VC University who completed a 25-item Resilience Scale Questionnaire (RS=25™) in fall 2014 while awaiting advisement in the first-year advising office. This study is generalized specifically to this convenience sample consisting of 150 females and 100 males of all majors and ethnicity.

Of this sample, 54 students were from the “at risk” category as part of the pilot study. Of the 54 students, 21 belonged to the SAFE experimental group, and 33 belonged to the SAFE control group. Of the ten focus group participants, there were two from the SAFE experimental group and none from the SAFE control group.

Procedures

The goal of the mixed method design is to reduce the possible threats to internal, external and statistically conclusion validity. The investigator is cautious not to interpret scores that might be related to other factors (e.g. the environment in which the survey was administered, the temperature inside the first-year advising office, the number of student in the waiting

area or the student’s “mood” which could vary from being elated, stressed or nonchalant prior to their advisement). The investigator is also mindful that all these factors, when taken individually or collectively, could affect the results of the students’ final score.

Data Collection

With IRB approval the following data was obtained via the students’ special identification number known as an X number. The variables were coded as shown in Table 1.

Table 1 Coded Variables

Variables	Coded
Major	(0 = undeclared, 1 = declared)
Market	(1 = Primary, 2 =Secondary)
Resident/Commuter	(1 =Resident , 2= Commuter)
Affiliation	(0 = No Affiliation, 1= SAFE Group, 2 = SAFE Control Group, 3 = Honor Society, 4= Ozanam Scholar, 5 = Catholic Leader, 6 = RISE, 7=Athlete, 8 = More than 1 affiliation)
Ethnicity	(1 = White, 2= Asian, 3 = 2 or more races, 4 = Hispanic, 5 = Black or African American, 6 = Unknown, 7 = American Indian or Alaska Native)
Gender	(1 =Female, 2 =Male)
SES	(parental income and parental involvement with parental involvement coded as 1= single parent and 2 = both parents)
Retention	(0 = students who did not return and 1= students who returned for their second year).

Using IBM SPSS Statistics 23, a regression analysis is conducted with data from the resilience survey of the 250 students using stepwise predictors (descriptive statistics approach). A stepwise multiple regression analysis is necessary to identify any significance among the predictor variables. These predictor variables are all measured against retention as the outcome variable.

Since retention is measured over time, the Focus Group questionnaire was administered in the fall of 2015, exactly one year after the Resilience Scale survey. The results were tabulated using QSR NVivo 11 software (exploratory analysis approach).

The Focus Group Questionnaire is administered to a sub-sample of 10 students from the original sample of 250 who also completed the Resilience Scale survey in the fall of 2014. The size of the focus group is within the traditional range recommended for best practices. The information (academic, financial, social involvement in clubs, etc.) were obtained with IRB and applies to the study. The investigator can identify those students who persisted from an updated enrollment report on all 250

students who registered to return at the end of the first year. By their registration, it is indicative of their ability to persist.

The first purpose of the focus group is to conduct a probe of how many of the students who took the survey persisted through the first year based on their resilience score. The second purpose of the focus group is to draw upon students' resilience, attitudes, feelings, beliefs, experiences, and reactions, in a way that would not be feasible using other methods. The questionnaire is customized by the investigator and is specific for this purpose.

The questions are designed to establish a relationship with the students while extracting critical information on resilient factors that may or may not have helped them to persist. The focus group questionnaire consisted of 8 questions in three forms: engagement, exploration, and exit. An example of an exploratory question is "Did you encounter any stressful situations such as illness, academic probation, family problems, financial problems or homesickness?"

Students are provided with a name badge and tent card with the participant's assigned number instead of their name. The length of the focus group discussion is 60 minutes long. A stipend of \$10.00 is paid to each student at the end of the session. The session is recorded, and the service of a graduate student is retained to type the responses of each participant in an Excel spreadsheet under the number assigned to each participant. The information is later transcribed and sorted in QSR NVivo 11 by the investigator for common emerging themes i.e. the number of times that each focus group participant individually referenced engagement, advisement, and retention strategy.

Instrumentation

The instrument used to evaluate the hypothesis on the relationship between resilience and first-year students retention at VC University was the Resilience Scale (RS-25™). A license was purchased from the Resilience Center with permission to use the 25-item Resilience Scale statements as the survey instrument. The Resilience Scale (RS-25™) has been used successfully for over fifteen years by thousands of researchers all over the world and is based purely upon scientific research (Wagnild, 2009). It is used to measure a person's ability to adapt and recover from life's challenges (Wagnild and Young, 1993; Wagnild, 2009), and is shown to be useful with a variety of age and socioeconomic groups in measuring resilience (Wagnild, 2009).

The reliability and validity of RS-25™ were also tested and reported in its current form and went through years of research and analysis to prove conclusively that it is a valid tool for accurately measuring resilience. Since then, the Resilience Scale (RS-25™) has been consistently reliable with Cronbach's alpha coefficient from 0.85 to 0.94. Likewise, the internal consistency for the RS-25 is strong ranging from 0.91 to 0.94 in four reported studies. Additionally, the validity of the Resilience Scale has been supported in many published studies and continues to demonstrate excellent construct validity (Wagnild, 2009).

The Resilience Scale (RS-25™) used in this study consisted of 25-items rated on a 7-point Likert scale with the following answer options: 1-"Strongly Disagree," 2-"Disagree," 3-"Disagree, Somewhat," 4-"Undecided," 5-"Agree Somewhat," 6-"Agree," 7-"Strongly Agree". . Typically, this survey can be done online and takes an average response time of 4-5 minutes to complete. If administered online the score is obtained immediately upon submittal, if done manually the scores are totaled and interpreted. Scores ranged from 25-175 and interpreted as follows: A score over 145 indicate moderately high to high resilience. A score of 130 or lower is on the low end, and a score of 161 or higher, is on the high end.

Reliability

The Cronbach's alpha reliability coefficient for the 25-item Resilience Scale™ was .888. This indicates good internal consistency of the items in the scale and is in line with the internal consistency reliability reported by the author of the Resilience Scale™.

Validity

Threats to External Validity: Because the sample was taken only from the VC university population, it raises the possibility that the results from the study might not generalize or replicate to other colleges and universities in other geographic locations or states, which serve a different demographic of students (i.e. liberal arts, community college, public university).

Threats to Internal Validity: The investigator was mindful of reactive effects (especially in the focus group). This effect is possible, if as a result of the students' sense of awareness of their participation in the study -- they also experience the novelty of it (often referred to as the Hawthorne Effect).

Threats to Statistical Conclusion Validity: The Focus Group showed some signs of statistical conclusion validity, as the convenience sample was indicative of random heterogeneity among the subjects. Evidence of this was detected in the focus group, where 3 out of the 10 participants were actuarial science majors, and a large proportion of the participants were business students.

Quantitative Findings

In step 1, a significant regression equation was found [F (1, 248)=8.927, p=.003], where the predictor variable Cumulative GPA accounted for approximately 3.5% of the variance of freshmen retention (R² =.035, Adjusted R² = .031). This suggests that approximately 96.5 % of the variance is as a result of other factors.

Inspection of the structured coefficients also suggests that Cumulative GPA is a predictor of freshmen retention [β =.186, t (248) =2.988, p =.003]. The unstandardized regression coefficient is .133 (SE=.044), and the intercept is .430. This suggests that for every one-point increase in the inventory score assessing the positive effect of Cumulative GPA, we can predict .13 more points on the inventory measuring retention. This also suggests that with each increase in Cumulative GPA that retention will significantly increase. Retention=430 + (.133* Cumulative GPA scores), p =.003.

In step 2, a significant regression equation was found [F (2, 247) = 7.084, p =.001], where the predictor variables Cumulative GPA and Market (Primary vs. Secondary) both accounted for approximately 5.4% of the variance of freshmen retention (R² =.054, Adjusted R² = .047). The result suggests that approximately 94.6 % of the variance is as a result of other factors.

Inspection of the structured coefficients suggests that the Primary Market is a predictor of freshmen retention [β =-.143, t (247) =-2.257, p =.025]. The unstandardized regression coefficient is -.094 (SE=.042) and the intercept is .642. This suggests that for every one-point increase in the inventory score assessing the positive effect of Market (primary coded as 1, secondary coded as 2), we can predict -.09 more points on the inventory measuring retention. This also suggests that with each increase in the Primary Market, that retention will significantly increase. Retention=.642 + (-.094* Primary Market), p =.001. Conversely, because β is negative, any increase in the secondary market, will negatively impact retention.

In step 3, a significant regression equation was found [F(3, 246)=6.744, p =.000], where the predictor variables Cumulative GPA, Primary v Secondary Market, and Resident v. Commuter students in the final step, accounted for approximately 7.6% of the variance of freshmen retention (R² =.076, Adjusted R² = .065). This suggests that approximately 92.4 % of the variance is as a result of other factors.

Inspection of the structured coefficients suggests that Resident students are a predictor of freshmen retention [β =-.181, t (246) =-2.406, p =.017]. The unstandardized regression coefficient is -.104 (SE=.043) and the intercept is .876. This suggests that for every one-point increase in the inventory score assessing the positive effect of Resident students vs. Commuter students (coded as 1 and two respectively), we can predict -.10

more points on the inventory measuring retention. This also suggests that with each increase in Resident Students that retention will significantly increase. Retention=.876 + (-.104* # of resident students), p =.000. Conversely, because β is negative, any increase in the commuter student population, will negatively impact retention.

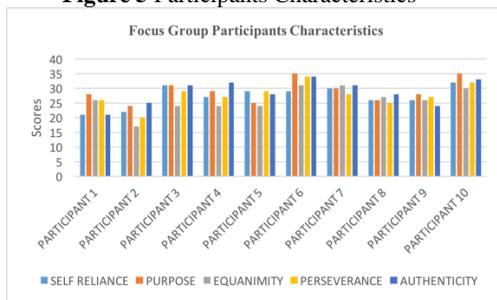
Discussion

The results of the quantitative analysis (Tables 2, 3, 4 & 5) identified statistical significance with the following three variables (Cumulative GPA, Market, and Resident). This is of interest when compared to a study by Fassig (2004), which identified resilience was a better predictor of the adjustment to college than high school GPA and SAT.

Qualitative Findings

The following are the “characteristics” or “pillars” of the resilience construct observed in the focus group of 10 participants. Their respective resilience scores are within the range of 25-175 in which 5 represents the low of 25 and 35 the high of 175. A score of moderately high to high resilience would fall within the range of 29-35 (see Figure 5).

Figure 5 Participants Characteristics



Self-reliance: Most of the students exhibited this characteristic as determined by their resilient scores. Also, they persisted through the first year which is indicative of a belief in themselves and their capabilities. Self-reliance is demonstrated through their faith. (participants 3, 5, 6, 7 and 10).

Meaning (Purposeful Life): Most of the students exhibited this characteristic in that they were of the realization that life has a purpose and they were determined to get a good education (participants 3, 4, 6, 7, 9 and 10).

Equanimity: Most of the students exhibited this characteristic in working to create a balanced perspective of their lives and experiences. One student expressed it as “get involved...but practice good time management.” (participants 6, 7 and 10).

Perseverance: The students exhibited this characteristic especially one student who was on academic probation (participants 3, 5, 6, 7, 9, and 10).

Existential aloneness (Authenticity): The students exhibited this characteristic through some of their shared experiences while understanding that some of their experiences must be faced alone, e.g., being away from family and in a new environment, (secondary market) or even taken an exam alone (participants 3, 4, 5, 6, 7, 8 and 10).

Discussion

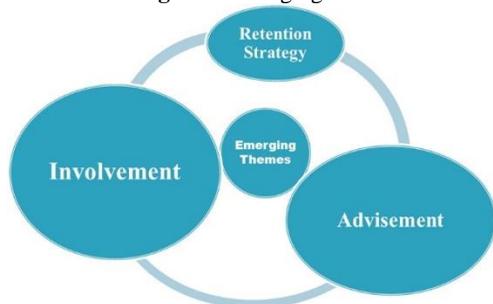
The results on the qualitative analysis (the voices), helped the investigator to gain a better understanding. The qualitative analysis from the 10 participants (8 females and two males), in the focus group, not only corroborated the results of the quantitative analysis but went a step further to provide several explanations.

It was observed by the investigator, that the students equated resilience with an affiliation as their support system. As a result of their involvement or engagement in student organizations and clubs, they were able to persist beyond the first year (fall 2014-fall 2015). This involvement or engagement is achieved through their on-campus affiliation.

In consultation with the founder and developer of the Resilience Scale, the investigator further learned that concepts such as engagement are often masked under the pillars of resilience. Dr. Wagnild emphasized that “you can be resilient without the engagement pillar in your life, although it is difficult.” She noted that resilience is internal; and not external (but supported by external factors like people).

The overall feedback from the focus group is grouped thematically based on the repeated occurrences during the discussion. The goal is to identify any resilience characteristics that were repeatedly emphasized by the participants in the focus group. The three major emerging themes emphasized as critical to freshmen retention were: (1) Student Involvement (2) Academic Advisement and (3) Marketing Retention Strategy. The emerging themes are shown in Figure 6.

Figure 6 Emerging Themes



Identifiable Stressors among Focus Group Participants

There were three types of possible stressors identified among these focus group participants, namely (i) Financial Stress from the high cost of tuition (ii) Academic Stress from being on Probation and (iii) Emotional Stress from being homesick. Of the three forms of stressors identified among the focus group, the investigator observed through the discussions that emotional stress from being homesick and away from family (particularly students from the secondary market who lived in residence halls) was at the top. Financial Stress seems to be accepted as a norm, as most students live in the present in which they will persist and defer their finances to student loans, grants, credit cards and on/off campus employment. In adverse situations, they will transfer to a less expensive institution of higher learning or drop out. For the student on academic probation, it was a huge inconvenience both emotionally and financially as she had to retake the class.

Ross, Niebling, and Heckert (1999) emphasized that “stress in the college setting cannot be eliminated, but we can and should do a better job preparing our students to manage it.”

Resilience Training

Teaching resilience is solid, research-based and effective. Students should be required to enroll in at least five hours of mandatory seminars on resilience. In the mandatory seminars, all freshmen students should be taught the skill of resilience that will help them to navigate their first year through college life. Faculty should also be encouraged to help students under their supervision learn, grow, and strengthen their resilience, as they begin their college studies. Emphasis on the first six to eight weeks of school is critical to success.

It is important to understand that resilience has a genetic component, and as a result, some students are naturally more resilient than others. However, the literature suggests that resilience is mostly a learned approach influenced by experience and relationships. The students who are not naturally resilient are the ones who need resilient training to practice being resilient the most.

The first step is to help students recognize how resilient they already are and then support them as they learn the essential skills and knowledge to live a resilient life and to respond with resilience to life’s challenges. Students who actively participate in the five-hour/five-session resilience curriculum are expected to build and strengthen their resilience.

Recommendations

The recommendations of this study are based primarily on the result of research question #3 and the general feedback. This question was designed for the focus group. The three significant factors which emerged as influential in the students' decision to persist in their college education is resilience training through engagement, faith, and service. Engagement is extended to peers, faculty, administrators, and parents. The results of the study emphasized the importance of building resilience among students in these areas. These areas are direct pathways toward nurturing "grit" and "persistence" and act as a coping mechanism against stressors.

The implementation of a resilience training program during orientation week to include: (i) Gathering knowledge of core characteristics of the resilience survey scores (pre-test and post-test), i.e., testing the resilience score of students on their arrival on campus and testing again at the end of the first semester. (ii) Reinforcing new resilience skills that can be employed when responding to life's challenges. This can be achieved through learned behaviors and role-play exercises, and (iii) Sharing insights into own responses gained by journaling and discussion during the resilience sessions. Outside of orientation week, resilience training can also be an active part of class discussions through projects and case studies.

Getting more students involved in service. The service component which emerged from the focus group discussion is supported by research. Service helps a student to stay engaged and build resilience. Participants in the focus group volunteered with Habitat for Humanity and others participated in community service (e.g., midnight runs to feed the homeless and helping in soup kitchens). They credited these efforts as part of their resilience to persist.

Encouraging students to connect with their faith. Students who are involved in or affiliated with faith-based activities and organizations can build their resilience, especially when faced with stressful situations. A participant in the focus group travels a great distance to be at her place of worship. Others are involved in campus ministry activities.

Last but not least, is the need to institute a solid first-year experience. Many colleges and universities employ First Year Experience (FYE) programs to help orient and acclimatize first-year students to campus life (Hunter, 2006). The literature on retention suggests that first-year seminars (usually called University 101 or First Year Experience), is one of the most powerful predictors of first-year student persistence into the sophomore year.

Typically, first-year students who take these seminars are more likely to persist into the third semester than those who do not, even when controlling for other

precollege and during college variables that may influence that outcome (Friedman, 2005; Williford, Cross Chapman and Kahrig, 2001; Murtaugh, Burns and Schuster, 1999; Anselmo, 1997; Ellis and Gardner, 1997; Fidler and Moore, 1996; Hyers and Joslin, 1998).

Implications for Future Study

In the process of compiling the literature review, several gaps in the available literature were discovered. Although research suggests that girls are more resilient than boys, researchers should be careful about relying on this conclusion. One theory suggests that, due to dominant cultural values, girls are more likely to keep their distress to themselves because girls are often taught that assertiveness is impolite, while boys learn to express their feelings freely. Although the exploratory analyses included in this study and other studies found no evidence of gender biases in the patterns of results, the largely female sample of 150 female to 100 males quantitatively and 8 females to 2 males qualitatively when compared to other similar sample size distribution, limits the investigator's ability to draw conclusions from these results. To this end, future studies with equitable sample sizes are also needed to assess further whether gender biases exist in the factors that promote resilience in the face of stressful circumstances.

There is also a need for research on second to third-year retention and third to fourth-year retention. While much of this study and research literature is concentrated on the first year of college attendance (first to second-year retention); we should also focus on factors that are also impacting retention but not isolated to the first year. The reality is that if students are completing their freshmen year but dropping out after that, then by definition, that student did not completely persist and did not graduate. However, if a student continues at another institution whether public or private, that student is said to have persisted -- just not at the same institution.

Limitations of the Study

This study has limitations that should be addressed. First, because the population involved are first-year students, the results cannot be generalized to second and third-year students. The rationale is that second and third-year students are more experienced and may respond differently to the survey than first-year students. Second, the size of the focus group is too small compared to the overall freshman population of approximately 2500 freshman students at VC University.

Third, because the sample was taken only from VC University, it raises the possibility that the study's results might not generalize to other colleges and universities in other geographic locations or States, which serve a different demographic of students (i.e. liberal arts, community college, public university). Lastly, as a

result of a small amount of incomplete data on parental income, this variable could not be measured accurately. This study could also not separate successfully the effects of parental involvement from that of other extended family members living in the home.

Conclusion

This study suggests that resilience plays an integral role in the retention process as indicated in the qualitative results. Wagnild (2014) suggests that individuals who score in the moderate range possess many characteristics of resilience.

Hartley (2011) stated that there is a need for more research on resilience as it relates to academic persistence. It, therefore, cannot be overemphasized that institutions of higher learning should seek to incorporate resilience as part of its core values and mission. Most important, students (especially those most at risk), should be provided with a resiliency antibody. This can be achieved by providing our students with genuine feelings of competence, belonging, usefulness, potency, and optimism through powerful, repeated, and authentic college experiences and by critically examining the results of our efforts.

The research on resilience also suggests that resilience develops with age which might suggest why the freshmen population are at such high risk for departure. Dr. Peter Gray, a research professor at Boston College, wrote the following in an article published in *Psychology Today*, under the caption Declining Student Resilience, A Serious Problem for Colleges:

“Whether we want it or not, students are bringing their struggles to their teachers and others on campus who deals with students on a day-to-day basis. The lack of resilience is interfering with the academic mission of the university and is thwarting the emotional and personal development of students” (Grey, 2015).

Finally, institutions of higher learning should focus on strengthening resilience at the organizational level. Individuals who learn to strengthen their resilience cannot thrive without an optimal work environment that supports and encourages resilient behaviors in their faculty, administrators and staff. Building and strengthening resilience teaches and supports behaviors that sustain long term life satisfaction and intrinsic motivation. The recent surge in employee assistance programs interested in measuring individual resilience as well as the resilience of their organizations are programs that can teach, promote and support resilience across all areas of academia.

The study, therefore, concludes that by nurturing resilience through engagement, faith, and service, institutions of higher learning can also increase retention of their first-year students.

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Appendix A. Variable Definitions

Table 2 Descriptive Statistics

	Mean	Std. Deviation	N
Retention	.88	.330	250
Resilience Score	143.61	14.376	250
Major	.72	.452	250
Market	1.48	.500	250
Resident/Commuter	1.50	.576	250
Affiliation	1.12	1.730	250
SAT-Total	1109.48	152.480	250
SAT-Verbal	548.08	83.656	250
SAT-Math	561.40	89.005	250
Cum GPA	3.36	.464	250
Parental Income	91593.54	88910.159	250
Parental Involvement	1.320	.7125	250

Table 3 Model Summary

Model	R	RSquare	Adjusted R Square	Std. Error of the Estimate	R Square Change	Change F	Statistics df1	df2	Sig F Change	Durbin Watson
1	.186a	.035	.031	.325	.035	8.927	1	248	.003	
2	.233b	.054	.047	.322	.020	5.093	1	247	.025	
3	.276c	.076	.065	.319	.022	5.789	1	246	.017	2.181

- a. Predictors: (Constant), CumGPA
- b. Predictors: (Constant), CumGPA, Market
- c. Predictors: (Constant), CumGPA, Market, Resident/Commuter
- d. Dependent Variable: Retention

Table 4 ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.944	1	.944	8.927	.003b
	Residual	26.212	248	.106		
	Total	27.156	249			
2	Regression	1.473	2	.737	7.084	.001c
	Residual	25.683	247	.104		
	Total	27.156	249			
3	Regression	2.064	3	.688	6.744	.000d
	Residual	25.092	246	.102		
	Total	27.156	249			

- a. Dependent Variable: Retention
- b. Predictors: (Constant), CumGPA

- c. Predictors: (Constant), CumGPA, Market
- d. Predictors: (Constant), CumGPA, Market, Resident/Commuter

Table 5 Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients			Correlations		
		B	Std. Error	Beta	t	Sig	Zero-order	Partial	Part
1	(Constant)	.430	.151		2.860	.005			
	Cum GPA	.133	.044	.186	2.988	.003	.186	.186	.186
2	(Constant)	.642	.176		3.642	.000			
	Cum GPA	.111	.045	.156	2.465	.014	.186	.155	.153
3	Market	-.094	.042	-.143	-2.257	.025	-.176	-.142	-.140
	(Constant)	.876	.200		4.383	.000			
	Cum GPA	.118	.045	.165	2.631	.009	.186	.165	.161
	Market	-.162	.050	-.246	-3.238	.001	-.176	-.202	-.198
	Resident/Commuter	-.104	.043	-.181	-2.406	.017	-.011	-.152	-.147

a. Dependent Variable: Retention

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