STUDENT ENGAGEMENT AND ACADEMIC SUCCESS IN VETERANS' POST-SECONDARY EDUCATION

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ABSTRACT

The major purpose of this study was to investigate whether the level of engagement, as measured by the National Survey of Student Engagement (NSSE) correlates with veterans' academic success as measured by cumulative Grade Point Average (GPA). Participants were senior college students, at a four-year urban public university who completed the National Survey of Student Engagement (NSSE). The design compared two years that the survey was administered, 2011 and 2013. The NSSE was also used to examine differences in perception among veterans, nontraditional and traditional students. Based on the quantitative analysis it was determined that the more engaged veterans are the better their GPA. While there was no statistical significance, there were positive correlations for veterans between GPA and their relationships with students, faculty, and administrative personnel in the 2011 sample; the 2013 sample showed a negative correlation. The analysis also determined that perceptions in quality of interaction with faculty, advisors, and administration changed from 2011 to 2013. Additionally, perceptions of veterans showed they felt the campus was supportive in 2011, however did not feel the same in 2013. The results of this quantitative study provide higher education institutions and researchers additional insight into which areas of their university services need attention in order to assist in the academic success of student veterans.

There are so many people to dedicate this dissertation to that it's impossible to list everyone. Above all I dedicate this to the men and women serving in the U.S. Military. I applaud your sacrifice and bravery for the freedom of others.

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CHAPTER 1

INTRODUCTION

College graduates are faced with inexplicable amounts of debt as the time to graduation seems to extend five years and more, retention rates are falling, and enrollment pressures are on the rise. The federal government is becoming more involved due to the amount of student loan debt, in addition to defaulting on student loans, and thus pressuring higher education institutions on measuring student outcomes (Zepke & Leach, 2010). Students seem to be feeling more pressure and are searching for quality education that is going to better prepare them for job procurement post-graduation. Employment will assist in the repayment of student loans. Veterans are utilizing the Post -9/11 GI Bill, which pays their tuition, and enrolling in universities in an expedient manner, with the number of student veterans increasing every year since 2010 (Vacchi & Berger, 2014). Military OneSource (2014) reports that approximately 300,000 active duty service men and women enroll in higher education institutions each year and register for courses that are online, on campus, or on base using the Post 9/11 GI Bill benefits. The Department of Veterans Affairs states that approximately 945,000+ students use their GI Bill educational benefits. Veterans' tuition is paid by the government for their service in the armed forces. Are student veterans, which are essentially a sub-group of non-traditional students (Olsen, Badger & McCuddy, 2014), receiving a quality education? Are student veterans experiencing an education that will assist them in attaining an academic degree that will prepare and assist them in finding employment upon graduation? Are their needs being met by administration, advisors, and faculty in

order for them to be academically successful? How can we measure the academic success of student veterans in postsecondary education? Kuh, Kinzie, Buckley, Bridges, and Hayek (2006) defined academic success as, “academic achievement, engagement in educationally purposeful activities, satisfaction, acquisition of desired knowledge, skills and competencies, persistence, attainment of educational outcomes, and post-college performance” (pp. 5). Research has shown that student outcomes such as GPA, time to degree, and degree attainment are best measured by student engagement (Kuh, 2009b). For the purpose of this study academic success will be based on student’s GPA. This study examines the results of National Survey of Student Engagement (NSSE) for veterans, nontraditional and traditional students. The study explored what student engagement looks like for veterans and non-traditional students, in comparison with traditional students, and how transitioning from one culture to one of academia may hinder or prepare these students for difficulties as well as success. This research examined the effects of engagement on GPA and the differences in engagement perception of all three groups of students: veterans, nontraditional, and traditional. Of particular interest in this study is engagement with faculty, administrators, advisors, and peers. The results will assist colleges and universities in planning strategic initiatives that will increase student engagement to increase student enrollment and retention.

Statement of Problem

Student veterans portray a particular group of non-traditional students on campus (Badger & McCuddy, 2014). There are vast and significant differences between nontraditional and traditional students. Nontraditional students are oftentimes older, have

family responsibilities, work outside of college to support their family, and are less involved in student engagement, thus not feeling connected to the campus community (Bauman, 2009; Kim & Cole, 2013; Dill & Henley, 2010; Forbus, Newbold, & Mehta, 2011; Lang & Powers, 2011; O'Herrin, 2011; Wurster, Rinaldi, Woods, & Liu, 2013). Research on the transition of veterans to college has been comparable as veterans experience ambivalent feelings due to leaving behind military brothers and sisters and the camaraderie that comes with the military culture (DiRamio, Ackerman, & Mitchell, 2008). Osborne (2014) reports that oftentimes the loss of military camaraderie and community results in isolation. Student veterans also seem to be disinclined to publicize their military or veteran status (Livingston, Havice, Cawthon, & Fleming, 2011). Research has shown that veterans perceive traditional students to be immature and to lack understanding when it comes to military culture and the experiences student veterans endured on deployment. This has resulted in increased frustration when trying to connect with traditional students (DiRamio et al., 2008; Durdella & Kim, 2012; Livingston et al., 2011; Rumann & Hamrick, 2010; Wheeler, 2012).

Furthermore, Ford and Vignare (2014) found that student veterans reported having difficulty with assignments and faculty expectations, associating these issues to cultural and operational differences (Glasser, Powers, & Zywiak, 2009), difficulty concentrating, forgetting basic concepts and how to study, and shuffling assignments with family responsibilities. In a qualitative study by Glasser, Powers, and Zywiak (2009) student veterans expressed frustration with instructors who professed their political inclinations in the classroom as factual versus an opinion. Moreover, several other

studies have concurred and documented student veteran conflicts with faculty (DiRamio et al., 2008; Elliott, Gonzalez, & Larsen, 2011; Livingston et al., 2011; Persky & Oliver, 2010; Rumann & Hamrick, 2010). Hausmann, Schofield, and Woods (2007) state that while familial support is beneficial, the difficulty in connecting with peers on campus poses a bigger threat to academic success and progression due to the influence of integration predicting persistence in student veterans. In addition the positive effects of academic success, student engagement, or social support, might be related to an overall improvement in mental health while in college (Hefner & Eisenberg, 2009; Kawachi & Berkman, 2001). Elliott et al. (2011) found that the more social support student veterans have the less likely they are to experience debilitating PTSD symptoms. While many of these issues were initially difficult to handle, many student veterans were able to adjust due to self-discipline, persistence, focus on the mission, and training experiences in the military (Ford & Vignare, 2014).

The American Council on Education (ACE) convened a Service Member and Veteran Academic Advising Summit, which met in June 2014, and published a report in 2015. The summit included student veterans, representatives from colleges and universities, U.S Armed Forces representatives, employers, and other military service organizations. The summit's intention was to collaborate and brainstorm on more effective ways to assist student veterans in their transition from the military to higher education. One of the major "take-aways" from the summit was that the participants realized the value of face-to-face engagement (ACE, 2015). Student veteran participants emphasized the need for administration, advisors, and faculty who would understand

their academic, financial, and health needs. In addition, Kuh (2010) found that student-faculty interaction must be substantive and is most important when students are encouraged to dedicate efforts to activities that are educational during college. He claims that the more contact with faculty the better (Kuh, 2010).

Purpose of Study

While there have been numerous insightful qualitative studies on student veterans and difficulties with adjustment from military culture to academic/college culture (Ackerman & DiRamio, 2009; DiRamio et al., 2008; Livingston et al., 2011; Rumann & Hamrick, 2010), there has been few quantitative studies done in regard to this particular sub-group of nontraditional students and how engagement, more specifically with peers, advisors and faculty, contributes to their academic success. Vacchi and Berger (2014) concur that while current literature investigates the student veteran experience there is a "holistic understanding" (pp. 115) that is missing and would allow higher education institutions to improve student veterans' college experience and academic success. There is very little quantitative research regarding the effects of student engagement on GPA and the differences between veterans, nontraditional, and traditional students in regard to academic success and perception of engagement.

Additionally, historical research shows that there were no significant differences between student veterans and traditional students, as well as nontraditional and traditional student comparisons when it came to performance in the classroom and degree attainment (Frederiksen & Schrader, 1950; Olson 1974; Spitzer, 2000). Radford (2011) found that 60% of student veterans, between the ages of 24-39, graduated with a degree from

college. While this was one of the most current studies of degree attainment, there are no empirical data that would inform us of student veteran success in higher education within the last five to seven years (Vacchi & Berger, 2014). A majority of the research has been qualitative and published in 2010-2011. This seems to be a significant amount of time lapse regarding research in this area, especially considering the growth of student veteran enrollment in the last five years and the participation of universities and colleges in the aggressive recruitment of veterans and active military members.

While many researchers discuss the impact that student engagement with peers, advisors, and faculty (Bean & Metzner, 1985; DiRamio et al., 2008; DiRamio & Jarvis, 2011; Rumann & Hamrick, 2010) may have on student veteran success, little quantitative research has been done on the effects of various variables and factors on student veteran success. Research has provided evidence that student veterans' success might be improved by providing a college environment that is supportive; there are gaps in the research that tie those findings between a "supportive" environment and academic success for student veterans (Herrmann, Raybeck, & Wilson, 2008). NSSE (2010) published results of its study and claims that student veterans disclosed inadequate levels of support from the institutions they were attending and were thus not as engaged as their traditional student peers. NSSE (2010) deduced that higher education institutions should create new ways to engage student veterans in order to create a successful environment. This study provides empirical data that will fill in the gaps in the literature, more specifically, if and how student veteran success has been affected by student engagement and if their perceptions of the quality of interaction with students, advisors, and faculty

have changed between the 2011 and 2013 years. This study provides quantitative analysis to investigate various factors on student success. These factors include NSSE engagement indicators such as collaborative learning, student-faculty interactions, and quality of interactions. Specific items in the survey are also considered such as relationship with faculty, other students, advisors, and administrative personnel. This study also looks at differences between student veterans, nontraditional and traditional students. There will be considerations such as: How can universities and colleges create an environment that is conducive to nontraditional students, and more specifically student veterans, in order to enhance learning and a supportive environment?; The findings of this study might also assist military counselors, on base installations, to better prepare military service members for the transition from that culture to the culture of academics. This research also shows the significance of the NSSE so that universities that are not participating in this might realize the necessity and utilize it as a valuable instrument at their institution to monitor and gauge student success.

Research Questions

This quantitative study addresses the following questions:

1. Is there a positive relationship between engagement and GPA for student veterans?
2. Is there a difference between veterans, nontraditional and traditional students in their perception of the university as measured by the NSSE engagement indicators?

3. How does the quality of interaction with advisors, students, and faculty affect GPA in 2011 and 2013 NSSE responses among veterans, nontraditional and traditional students?
4. Are there differences in perception, on individual item responses, between the three student groups: student veterans, nontraditional and traditional students?

Definition of Terms

1. Student Veteran. This term utilizes David Vacchi's (2012) definition, "A student veteran is any student who is a current or former member of the active duty military, the National Guard, or Reserves regardless of deployment status, combat experience, legal veteran status, or GI Bill use," (pp. 17).
2. Nontraditional student. The National Center for Education Statistics defines nontraditional students as "adult students, over the age of 24, who often have family and work responsibilities as well as other life circumstances that can interfere with successful completion of educational objectives. Other characteristics are associated with their background (race and gender), residence (off campus), and level of employment (full time) (NCES, 2009).
3. Traditional student. A student enrolling in college after high school graduation or some community college and between the age of 18-24, enrolled full-time, and lives in campus residence halls (Deil-Amen, 2011).

Significance of Study

Students invest in their education by paying for tuition and books, taking time to attend class, and study outside of other obligations. It is important to their future, as well

as the economic growth of our country. The increase in enrollment of nontraditional students, more specifically veterans, has been exponential in colleges and universities (Military One Source, 2014). The federal government passed the Post 9/11 GI Bill in order to benefit those men and women who have given their time and sacrificed so much more on deployments. This benefit not only advances active military and veterans but colleges and universities as well. These tuition dollars are not obtained through student financial services but come directly from the government. Therefore, it is necessary that colleges and universities pay attention to this student population; it is beneficial to everyone involved. Due to the growth of the military and veteran population of students, the issue of the best way to provide a quality education for this population is becoming increasingly important. Quality of education, for the purpose of this study, is measured by students' responses to the survey questions and their perception of the quality of interactions and campus environment. Investigating the effects of engagement on students and GPA, in addition to students' perception of quality education received, will assist higher education institutions in promoting engagement which will positively affect retention rates, decrease the time to graduate, and potentially increase the admissions and enrollment of active military members and veterans.

CHAPTER 2

REVIEW OF LITERATURE

Introduction

Veterans transfer from a highly structured environment to one that is unstructured and self-disciplined. Although the culture change is a concern, researchers question the quality of education received by veterans (Badger & McCuddy, 2014). How do student veterans perceive their quality of education? If student veterans engage more with faculty, advisors, and peers does the perception of quality increase? Does increased engagement predict academic success?

The purpose of this chapter is to educate the reader about the history of the United States Military and its relationship with higher education. This history will encompass World War II through post-9/11 wars and how the Montgomery GI Bill was adapted and later became the post-9/11 GI Bill. An exploratory analysis will be given of the characteristics, demographics, and culture of the military and how student veterans may struggle with the adjustment to campus culture. Transitions will then segway into the effects of student engagement on academic success, how student engagement is measured and how this factor influences success and degree attainment. George Kuh's National Survey of Student Engagement (NSSE) is discussed in detail, more specifically focusing on engagement with peers, administration, and more importantly, faculty. A discussion of what student engagement looks like for student veterans and how transitioning from a military culture to one of academia may hinder or prepare these students for academic success. Schlossberg's (2011) Adult Transition Theory, in addition to Wade Livingston's

Student Veteran Academic and Social Transition Model (SVASTM), will be the theoretical framework for this study assisting the reader in understanding how student veterans can learn to cope with difficulties in transitioning to higher education which in turn will result in increased engagement. Finally, this chapter summarizes the literature and calls attention to areas that have not been significantly researched along with implications.

History of Military and Higher Education

War. Since 1862 Americans began to live with the idea that war might be an expectation of life. There will always be conflict in this world and there will always be a need for people to assist in rectifying or dissolving this conflict. Some of these "people" have the power to determine if war is a necessity in order to resolve conflict and enlist the help of armed forces. The "armed forces" consist of men and women who are willing to sacrifice their lives in order to protect and serve their country by voluntarily, since 1973, enlisting in the armed forces. These men and women fight to protect the citizens of their country from harm, death, and destruction.

The first affiliation among the military and higher education started with the Morrill Land Grant Act of 1862, during the Civil War (Abrams, 1989). Abrams states that, as part of the pedagogy at Act- financed institutions, military training would be mandated, as stipulated by the Morrill Act. After the Civil War, and prior to the end of World War I, the United States Congress proceeded to pass the National Defense Act (NDA) in 1916. The NDA allowed colleges and universities to play a vital role in training the armed forces and called this group the Students' Army Training Corps (Gruber,

1975). This group didn't last long and shortly thereafter the Reserve Officers' Training Corps (ROTC) was created by NDA legislation (Gruber, 1975; Neiberg, 2009). While most universities and colleges eliminated mandatory ROTC programs in the 1960's there are still higher education institutions that produce an extraordinary number of military officers in the U.S. Military with “Army ROTC producing approximately 60% of the second lieutenants who join the active Army, Army National Guard and the U.S. Army Reserve. More than 40% of current active duty Army General Officers were commissioned through the ROTC (http://www.cadetcommand.army.mil/history.aspx). Additionally, the NDA created the breakdown of the American military as we know it today: active duty, reserves, and National Guard (Neiberg, 2009). Altschuler and Blumin (2009) believe that the approach used today, with our veterans in higher education, was attributed to World War I. Moreover, Livingston, Havice, Cawthon, and Fleming (2011) agree that the NDA legislation, passed during World War I, was the bedrock for the relationship between the military and higher education institutions.

World War II contributed to even more change between the military and higher education. With the discharge of millions of servicemen, with potential negative effects on society and the economy, came the birth of the Servicemen's Readjustment Act of 1944, also known as the GI Bill (Olson, 1974; Rose, 1991). The GI Bill allowed veterans access to benefits for serving in the armed forces, both economic (home and business loans; unemployment benefits) and postsecondary educational attainment, or Title II (Olson, 1974; Rumann & Hamrick, 2009.) Depending on length of time in service, in addition to age, educational benefits were from a minimum of one year and up to four

years (Bound & Turner, 2002). Bound and Turner (2002) claim these benefits "included up to $500 in tuition and educational expenses paid to the institution per academic year and a monthly cash allowance of $65 per month for single veterans and $90 per month for married veterans. The subsidies were enough to cover the tuition of traditionally expensive schools like Harvard University" (pp. 790).

The number of veterans enrolling in colleges and universities, post- World War II, was astounding, with the enrollment of approximately 70% of the male population in the nation's' higher education system (Bound & Turner, 2002). Vacchi and Berger (2014) claim that 5.6 million veterans sought enrollment at trade schools and utilized the benefit of "funded on-the-job training" (pp. 97), while 2.2 million veterans, out of 14 million eligible, made use of the Title II GI Bill for undergraduate and graduate programs by 1950 (Olson, 1974; Serow, 2004; Thelin, 2011). Many researchers found that, by analysis of the 1956 President's Commission report, approximately 80% of the World War II veterans returning to college earned their undergraduate or graduate degree (Serow, 2004; Thelin, 2011).

While Olson (1973) states that colleges and universities were unprepared for the influx of veteran students on campus, he summarizes that it was handled relatively well by administration via assistance with family housing, hiring more faculty, ensuring flexible admissions, and increasing classroom capacity (Olson, 1974). With the flexibility of higher education student veterans established that they were engaged and prepared, as well as focused and flourishing in their academic programs (Olson, 1974; Toven, 1945). It has been said that "the GI Bill was seen by many to have "democratized" the collegiate

population by making college a viable option for men from a range of sociodemographic backgrounds, including minorities, first- generation Americans, and those from low -income households" (Bound & Turner, 2002, pp. 785). Although Thelin (2011) may agree to an extent, he also states that equality for women and Black Americans contributed to the evolution of higher education. Furthermore, Schofer and Meyer (2005) claim that the "expansion of higher education has the quality of a single global event or sea change occurring in the decades following World War II" (pp. 901).

The post-World War II use of Title II GI Bill produced considerable research in how to best assist student veterans in higher education. This research and attention on student veterans, however, appeared to be over during the Vietnam era (Bauman, 2013). While there is little research on the effects of the Vietnam War on student veterans, this war was the most controversial and Vietnam veterans experienced negativity when returning home (Kaylor, King, & King, 1987; Summerlot, Green & Parker, 2009). DeBenedetti and Chatfield (1990) reported that due to the anti-war sentiments of American citizens regarding the Vietnam War, student veterans did not feel welcome on college campuses and therefore would not disclose that they were veterans. Offering further explanation, student veterans hid their veteran status in order to avoid stigmatization, reprobation, or antagonism from anti-war protestors, which was common during the 1960's and 1970's (DeBenedetti & Chatfield, 1990; Wilson, Figley & Leventman, 1980). Colleges and universities were experiencing an economic downfall during this time period, thus very few higher education institutions continued with support for veterans returning to school (Wilson et al., 1980). Due to the lack of military

conflicts from 1975 to 1990, student veteran presence in colleges and universities dwindled in the 1980's and 1990's (Summerlot et al., 2009).

With the active draft ending in 1973 and the U.S. military becoming an all-volunteer force, the reliance on the National Guard and reserve units heightened and their significance in the armed forces increased in importance as they supplemented the full time active duty armed forces (Rumann & Hamrick, 2009). Reserve units are under the operation of the federal government and are activated in response to threats to national security as well as when the United States military is retained for war (www.usar.army.mil). While the reserve units are under the jurisdiction of the federal government, the National Guard operates under the governor of their corresponding state and is called to assist in emergencies that are domestic in nature (www.nationalguard.mil). Additionally, the president can enlist National Guard units in times of war to assist in mission support, which can be difficult for those members that are students as there is typically little advance notice with "no consideration of academic schedules, deadlines, or student's enrollment status" (Rumann & Hamrick, 2009, pp. 28).

Due to the conversion to an all-volunteer armed force, recruitment into the military became more difficult (Rumann & Hamrick, 2009; Rostker, 2006). Thus, the Montgomery GI Bill was introduced in 1985 with an addendum that allowed the National Guard, and reserve units, educational assistance in addition to increased and enhanced recruitment and retention endeavors (Asch, Fair, & Kilburn, 2000; U.S. Department of Veterans Affairs, 2014). In the 1990's the criteria to enter the military became more

selective with the requirement of a high school diploma; whereas previously people could enter with a Graduate Equivalency Diploma (GED) (Rostker, 2006).

A large number of National Guard and reserve units were called to action in the 1991 Persian Gulf War, also known as Operation Desert Storm, to support the armed forces (Rumann & Hamrick, 2010). Operation Enduring Freedom and Operation Iraqi Freedom also initiated the activation of large numbers of National Guard and reserve units. This greatly affected those members that were enrolled in higher education institutions thus complicating and disrupting their academic attainment and success (Rumann & Hamrick, 2009). The American Council on Education (McBain, Kim, Cook, & Snead, 2012) states in their report that a majority of "military friendly" higher education institutions, approximately 82%, have adopted a policy that will reimburse tuition to those student veterans who were called out for deployment/activation as well as adopting policies to change re--enrollment processes and procedures. Olson (1974) and Serow (2004) found that other factors that may contribute to student veteran success might depend on self-discipline, motivating factors, and the commitment to degree attainment that exceeds that of their counterpart, non-veteran students. Vacchi and Berger (2014) summarize that there needs to be further exploration into the fact that many of these student veterans have disrupted enrollment thus making it difficult to fully assess whether or not one can fairly compare the academic success of student veterans to that of non--veteran students.

With the implementation of the Post -9/11 GI Bill in 2009, approximately 550,000 veterans enrolled in higher education institutions across the nation (Sander, 2012). The

American Council on Education (McBain et al., 2012) reports that as many as two million veterans served in the Iraq and Afghanistan wars and have access to their GI Bill benefits leading to an increase in higher education enrollment within the next several decades. As the U.S. Department of Veterans Affairs (http://www.benefits.va.gov/gibill/post911_gibill.asp) claims, increased enrollment could be due to longer eligibility dates for those serving a minimum of 90 days in active duty after September 11, 2001or were medically or honorably discharged from military armed forces (Sanders, 2012). The Veterans Benefits Administration (2015) reports rapid growth in the number of service men and women who are utilizing their GI Bill benefits every year. Their report shows that with the utilization of all GI Bill chapters, in 2001 approximately 373,730 service members accessed these benefits. In 2008, the number of service men and women rose to approximately 461,250. By 2012, the number almost doubled up to 845,094. This extraordinary gain was most likely due to the Post- 9/11 GI Bill and the expansion of educational benefits. The expanded benefits included 100% tuition paid directly to the higher education institution and up to the most expensive public in-state tuition for undergraduates, for 36 months (Ford & Vignare, 2014). The bill also allowed a $1000 yearly book allowance in addition to housing assistance directly to the student veteran. A new provision was added that allowed veterans to transfer benefits that were unused to a spouse or children. The Veterans Benefits Administration (2015) also reports further improvements since 2009 which include: an increase in the amount and variety of accounted for educational expenses; settled the maximum tuition at

$20,235 for 2014-15; dispersed benefits to qualifying National Guard and reserve members; and extended the housing allowance to veterans enrolled in online courses.

Vacchi (2012) states that "the new Post -9/11 GI Bill offers the best educational benefits for veterans in our nation's history" (pp. 15). While the student veteran population will be growing on college campuses, it is important that administration, faculty, and staff understand this demographic, in addition to the military culture and life experiences veterans have lived in for four or more years, in order to provide a smooth transition into academic and/or campus life (DiRamio et al., 2008; Green & Hayden, 2013).

Demographics/Characterizations

There has been rapid growth in the student veteran population in the past several years among community colleges and universities across the country. As stated previously, with the addition of benefits to the Post 9-11 GI Bill eligibility taking effect in 2012, this population will continue to increase on college campuses. Additionally, it has been estimated that anywhere from 700,000 to 840,000 veterans, of the 1.8 to 2.1 million deployed, may apply for disability benefits (Stiglitz, 2008). This means a large number of these veterans may take advantage of the GI Bill and seek higher education. As such, community colleges and universities need to prepare and understand the student veteran population in order to provide a service that is beneficial to this community. Romero, Riggs, and Ruggero (2015) agree with this statement as they claim "student veterans come from a highly structured military environment, which promotes strong beliefs and values that may benefit student veterans in their college coursework" (pp.

248), in addition to needing assistance when it comes to disabilities they may have been incurred during deployment. This begins with understanding the demographics, character and culture from which our student veterans hail.

According to the American Council on Education (2014), student veterans typically pursue non-traditional methods to higher education. The average age of student veterans entering a college or university is 25 years old. Only 4% of undergraduate students are veterans, of which 54% are enrolled in associate degree or certificate programs while 44% are in bachelor's degree programs. Five years is the approximate delay when veterans enter college after graduating from high school with 38% of veterans enrolling in a public 2-year community college, 23% in a private for -profit institution, 19% in a public 4-year university, and 10% in a private non-profit. Queen and Lewis (2014) found that student veterans enrolled in graduate programs chose to attend private nonprofit universities over private for-profit ones. Approximately 20% of student veterans are pursuing a major in Science, Technology, Engineering, or Mathematics (STEM) fields. Furthermore, the Department of Veterans Affairs (2015) reports that out of all student veterans enrolled in higher education, 27% are female while 73% are male; approximately 44% are married and 52% have dependents. The VA also claims that 62% of student veterans are first generation learners while 42% work full-time while enrolled in college.

There also seems to be a common theme when analyzing the mental health demographics of the student veteran population. One of the generalizations is that all veterans have experienced combat, killing and death; thus they have Post Traumatic

Stress Disorder (PTSD) and therefore have difficulty transitioning from the military into civilian and academic life (Rudd, Goudling, & Bryan, 2011; Smith -Osborne, 2013). While the exact number of veterans suffering with PTSD and other mental health issues is not known, of those men and women who participated in Operation Iraqi freedom and Operation Enduring Freedom, approximately 18% of those service members have been diagnosed with PTSD or at least experience some symptoms of PTSD (Burnam, Meredith, Tanielian, & Jaycox, 2009). Burke, Degeneffe, and Olney (2009) agree that PTSD is common. In addition to this disorder is depression (Cook & Kim 2009) and traumatic brain injury (TBI). Traumatic brain injury can cause cognitive fatigue, which makes thinking and learning more challenging for those military students that have this injury which can, in turn, lead to social isolation (O'Connor et al., 2011; Slaughter, Fann, & Ehde, 2003).

There appear to be specific issues affecting female veterans, the first being a greater incidence of PTSD compared to their male counterparts. Green and Hayden (2013) found that PTSD is a growing concern among female service members returning from deployment. Killough (2009) states that 14.1 percent of female student veterans suffered from PTSD compared to 9.8 percent of male student veterans. Killough's findings also reflect an increase in military sexual trauma, or sexual assault, among female military with 43.7 percent reporting the abuse. DiRamio and Jarvis (2011) imply that the devaluation of women in general society parallels the experiences of women in the military. Regardless of the strides women have made as leaders in the military, a significant gap remains between them and their male counterparts when it comes to high

ranking leadership roles. Perceptions of women being caregivers to their children, too feminine, or too masculine may affect the large number of military sexual trauma cases coming to light (DiRamio & Jarvis, 2011).

While many may state that student veterans have a difficult time transitioning into academic life due to the overgeneralizations that "all veterans returning to college have PTSD, TBI, or suffer from other mental health issues," (Burnam et al., 2009, pp. 775). Vacchi (2012) states that these are all presumptions that are not supported by empirical evidence. These mischaracterizations might impede student veteran success as university administrators and faculty may distance themselves from extending the help that veterans need (Vacchi & Berger, 2014). The mischaracterizations can also create a stigma, or unsound stereotypes (Hassan, Jackson, Lindsay, McCabe, & Sanders, 2010), which might be the reason that so many student veterans do not self-identify as PTSD or TBI thus going undiagnosed and untreated (Kelley, Smith, & Fox, 2013). Several incidents which made national news that involved military service members and focused on PTSD, TBI, and violent behavior have assisted in the stereotyping of student veterans and have added to the difficulty of integrating into campus life (Hassan et al., 2010; St. John, 2011). With media attention comes the perception from student veterans that colleges and universities may be "anti-military" which might also be an explanation for veterans not self-identifying upon matriculation (Briggs, 2012).

The bottom line is that every veteran has different experiences, and may or may not be affected by injury, trauma, or disorders; thus no specific demographic or characterization should be a "one size fits all" mentality. This means that understanding

this population is all the more important when providing services to student veterans (Ackerman, DiRamio, & Garza-Mitchell 2009; Rumann & Hamrick (2009) ; Vacchi & Berger, 2014). Church (2009) states the impossibility of generalization specifically regarding the limitations or abilities of combat veterans. Moreover, he claims that it is very important to understand the demographics and characterizations of the student veteran population in order to provide better service. An example would be faculty needing to be more mindful and aware regarding inconsistent attendance, due to symptoms or medical and mental health appointments.

Military service members have endured intense training and extremely difficult conditions on deployment, which Sander (2012) believes makes it difficult to characterize veterans. Facing dangerous situations on numerous deployments, the possibility of severe injury or death, and the separation from loved ones are some of the stressors involved in military experience (Basham, 2008).

Service members experienced different cultures when deployed. Along with the ingrained core values, military men and women are provided with various training opportunities, referred to as Military Occupation Specialty (MOS) jobs, that provides a sense of teamwork and discipline as well as the ability to use their skills in "real world situations" (DiRamio & Jarvis, 2011). As Osborne (2014) summarizes,

> “Before pursuing a degree many veterans have mastered foreign languages, worked with foreign governments, operated and maintained expensive and high tech equipment, managed others, performed life-saving medical duties, and applied critical leadership and decision-making skills in tense situations. When

> entering college for the first time, their life experiences are vastly different from those of a, newly graduated high school senior, freshman entering college" (pp. 248).

Military Culture vs. Academic Culture

In order to better understand student veterans, one needs to understand the military culture that has had a significant impact in their lives for the past four, or more, years. Veterans report a strong identification with the military after only serving a few years which indicates just how important/intense/significant the acculturation is within the military (Johansen, Laberg, & Martinussen 2013). Alvesson and Billing (2002) defined culture as a group of people valuing shared concepts that define interpretations, beliefs, and traits that mature and develop over time. This definition seems to fit the meaning of military culture very well.

Hofstede (1991) has a more metaphorical definition of culture stating, "Culture is the collective programming of the mind, which distinguishes the members of one group or category of people from another" (pp. 5). Soeters, Winslow, and Weibull (2006) believe culture is not inherited; it is learned and develops from an individual's' social environment and not a gene pool. These two definitions, again, seem to be synchronous when defining military culture.

Fennel (2008) found that although there are many different ethnicities in the military, as well as various cultures and religious beliefs, the military is a culture in and of itself. The military "has its own history, laws, values, traditions, language, and customs" (Meyer, 2015, pp. 416). Each branch of the military appears to have core values

that service members are to know, understand, and live by during their time, not only as active duty members, but as retirees and honorably discharged men and women as well. Core values are taught during boot camp, or recruit training.

The U.S. Marine Corp and U.S Navy have three shared core values: honor, courage and commitment (www.marines.com; www.ethics.navy.mil). These values make up the foundation of a Navy Sailor and Marine character. The U.S. Army has seven core values that make up the acronym LDRSHIP: loyalty, duty, respect, selfless service, honor, integrity, and personal courage (www.army.mil/values). The U.S. Air Force has three core values: integrity first, service before self, and excellence in all we do (www.airforce.com). These values are ingrained in recruits during boot camp so that they will carry over into mission. While the perception of civilians might be that the military is all about war, conversely, "the military upholds the value of peacefulness by preserving harmony, which sometimes ironically involves waging war" (Coll, Weiss, & Yarvis 2011, pp. 489).

Martin and McClure (2000) affirm that, "the essence of military unit cohesion is the commitment to one's unit, the unit's mission and its members" (pp. 15). Houppert (2007) describes basic training as breaking one's dependence on family to dependence on his/her teammates. To rely on oneself in the military would be considered dangerous. Military is team. Fennel (2008) reveals common values shared by all military members: 1) importance in maintaining physical fitness; 2) Importance of training before deployment in order to decrease the number of casualties; 3) No man/woman is left behind; 4) The mission and the team come before self; 5) Never show weakness to the

team nor the enemy. Fennel surmises that the first two values are indirectly affiliated to the importance of readiness, while the last two values are analogous to the importance of mission. These values are important factors when trying to understand the student veteran.

This military mentality, or culture, does not seem to be synchronous with that of incoming freshman in an academic culture. One difference is the way that each group was "socialized" by their new institution (Ricks, 1997). For example, Marine Corp boot camp is thirteen weeks in length and is considered the toughest training out of all the other branches (www.military.com). Recruits are not allowed to call friends or family, watch TV, play video games, or go to the bathroom without asking first. Their time spent in boot camp is structured from the moment they are awakened to the time they are allowed to sleep for the night. Recruits are yelled at, put through rigorous drill training, pushed to increase their level of physical fitness, and cannot eat until allowed. The final week of boot camp is a culmination of everything learned in the three months of training. Recruits will experience the gas chamber, marksmanship testing, and end with the Crucible. The Crucible is a fifty-four hour drill that focuses on the utilization of teamwork under stress. Recruits get approximately eight hours of sleep during this fifty -four hour period and receive two-and-one-half Meals Ready to Eat (MRE) throughout the course of a twenty-four hour period. They are then put through various road marches and night infiltration courses. The number of miles marched within the fifty -four hour period is approximately forty (www.military.com). This "socialization" experience is quite different from that of an incoming freshman to a university/college. College

freshman during orientation week listen to guest speakers, attend cookouts, socialize with friends, and are free to go to the bathroom whenever they choose.

Student veterans and non-veteran students have had vastly different experiences at the same chronological age—producing significant differences in behavior and thinking between the two groups when put in the same surroundings, such as college (Ford & Vignare, 2014). The military culture emphasizes the importance of hierarchy and stresses that service members abide by rules and regulations (Soeters et al., 2006). Incoming college freshman, who have just graduated high school, seem to exemplify the antithesis of the ingrained values of student veterans. Non-veteran students create challenges for student veterans as they tend to be much younger, disrespectful of authority, lack understanding of military service, and can be critical of the recent overseas conflicts in which veterans have fought (DiRamio, Ackerman, & Mitchell, 2008).

Ford and Vignare (2014) report that a majority of student veterans often voiced frustration, animosity, and became agitated when discussing their traditional non-veteran student classmates claiming they were disrespectful, juvenile, narcissistic, did not appear grateful to be in college, and were more interested in the social aspect of college rather than learning. When asked for examples of behaviors, it appeared there were similarities within independent qualitative studies performed; traditional non-veteran students will interrupt the professor, text or play games on their phones or laptops, and complain and carry on with peers during lecture (Badger & McCuddy, 2014; Ford & Vignare, 2014; Rumann & Hamrick, 2010; Smith-Osborne, 2013; Steel, Salcedo, & Coley, 2010). A study completed by the American Council on Education (2012) found

consistencies as 55% of higher education institutions identified that social acculturation for student veterans continues to be an issue. This was a 22% increase compared to the study ACE performed in 2009 when 33 % of all institutions surveyed in 2009 reported social acculturation as a concern. The survey conducted by ACE, interestingly, found that public four-year higher education institutions determined social acculturation as a priority with 67 percent reporting in the 2012 survey in contrast to 44% in 2009, an increase of 23 percentage points. To the contrary, Rumann and Hamrick (2010) found that student veterans and non--veteran students were able to adapt successfully in both cultures.

Service members tend to matriculate into higher education because they have career goals they want to attain in order to appear more viable in the work force (ACE, 2012). Others also want to broaden their experiences and education and see education as a facilitator in the transition from military to civilian life (ACE, 2009). Rumann and Hamrick (2010) state that in order to have a successful transition from the military to academia, veterans work diligently at adapting to the different dynamics in order to balance school, work, and family (Steele et al., 2010). This is a significant transition in life as military service members are leaving a culture that is highly structured to one that lacks a hierarchy of officers with minimal rules (DiRamio, Ackerman, & Mitchell, 2008; Rumann & Hamrick, 2010).

Student Engagement

Student Engagement Theory and Research. Student engagement has been characterized as being part of educationally beneficial activities that are both inside and outside a classroom experience and that may lead to measurable outcomes (Kuh, Kinzie,

Buckley, Bridges, & Hayek, 2007). Chapman (2003) provides insight into the definition of student engagement by defining it as a cognitive asset with active involvement in, and emotional obligation to, learning. Kahu (2013) points out that there are several approaches to discerning student engagement:

1. Behavioral, which concentrates on student behavior and pedagogy;
2. Psychological, where engagement is viewed as an individual personality process;
3. Sociocultural, focusing on the social context of a student's' experience on campus and an institutions habit of favoring dominant social groups which can lead to retention issues, specifically with non-traditional students (Thomas, 2002);
4. Holistic, which is in line with the constructivist viewpoint where engagement is a continuum with various locations (classroom, institution, assignments, courses) and is not easily measured by surveys but could be understood via qualitative analysis and research (Bryson, Hardy, & Hand, 2009).

For the purpose of this research, discussion will be focused on the behavioral perspective and will use Kuh's NSSE as a tool to measure student engagement and its effects on GPA and differences in perception of engagement among veterans, nontraditional and traditional students.

Kuh, Kinzie, Schuh, and Whitt (2005) state that there are two critical features of student engagement that should be considered:

> “The first is the amount of time and effort students put into their studies and other educationally purposeful activities. The second feature of student engagement is how the institution deploys its resources and organizes the curriculum, other learning opportunities, and support services to induce students to participate in activities that lead to the experiences and desired outcomes such as persistence, satisfaction, learning, and graduation” (pp. 44).

Additionally, Pascarella and Terenzini (2005) found that the greater an individual student's endeavors to engage in academia, personal discipline, and involvement in social activities outside of the classroom, the greater impact college will have on the student’s life. While Pascarella and Terenzini (2005), as well as Astin (1984) and Schlossberg (1989), utilize the term "involvement," other researchers, such as Kuh et al. (2005) utilize the term "engagement." Harper and Quaye (2009) state that while the two are conceptually similar, there are significant differences. They believe that while it is possible to be "involved" in something, a person does not necessarily have to be "engaged" in that action/event. An example would be if a student joined a club on campus and attended weekly meetings but did not offer feedback nor volunteer to assist in any activities, the student would be "involved" in the club but would not be actively "engaged" in the club. Kuh and his fellow researchers clarify that in order to be "engaged" a student must take action, have a sense of purpose, and collaborate with others for adequate learning to take place (Kinzie & Kuh, 2004; Kuh et al., 2005; Kuh et al., 2007; Zhao & Kuh, 2004).

There has been significant research done on the benefits of student engagement. Anaya (1996) and Magolda (1992) found that student engagement is beneficial to and enhances the advancement of intellectual skill; while Cabrera, Nora, Terenzini, Pascarella, and Hagedorn (1999), in addition to Kuh, Palmer, and Kish (2003),

discovered that the difficulty of college adjustment is assuaged with a greater amount of engagement. Moran and Gonyea (2003) assert that engagement with peers has the most significant influence on outcomes. Other significant findings regarding the benefits of student engagement include self-image being positively influenced, psychosocial evolvement, and the development of gender and racial identity (Harper, 2004; Harper & Quaye, 2007; Torres, Howard-Hamilton, & Cooper, 2011); the development of morals and a code of ethics (Evans, 1987; Rest, 1993); and, the functional ability and adaptability of skills learned in higher education (Kuh, 1993, 1995).

Kuh et al. (2005) found that increased student engagement is a contributing factor in the success of college students. This particular group of researchers, among others, assert that purposeful student engagement practices resulting in success are due to student involvement with faculty, pedagogical learning that is engaging and collaborative, and that the perception of the higher education institution which the student is attending has clear expectations of academic and personal performance, preferably high levels of performance expectations (Ahlfeldt, Mehta, & Sellnow, 2005; Astin, 1991; Chickering & Gamson, 1987; Kuh et al. 2005; Pascarella, 2001; Pascarella & Terenzini, 2005). The assertions above are correlated to student satisfaction, various elements of learning and development, fortitude, and degree attainment (Astin, 1993; Goodsell, 1992; Pascarella & Terenzini, 2005; Pike, 1993). Additionally, Tinto (2000) attests that engagement is the most important forecaster of persistence, thus retention and degree attainment.

Carini, Kuh, and Klein (2006) affirm that the best predictor of student success, learning and development is student engagement. Carini et al. (2006), however, state that it is overly simplistic to believe that the more a student studies a subject, the more the student learns about that subject. Moreover, Kuh (2003) and Coates, Hillman, Jackson, Tan, Daws, Rainsford, and Murphy (2008) add that the more students receive feedback on their writing assignments, analysis, and their ability to problem solve, the more students are engaged and deft. The knowledge and skill acquired from higher education, in addition to educationally enhanced student engagement, provides a foundation that is necessary for job procurement and living a satisfied life (Carini et al. 2006; Shulman, 2002; Yorke, 2006). Schlossberg (1989) agrees as she proclaims involvement and engagement create connections with all people ranging from family to peers, faculty, and staff which allows for an awareness of interconnectedness and creates a sense of community that is important to human survival. There appears to be sufficient evidence regarding the benefits of student engagement on academic success and thus degree attainment. However, sufficient evidence does not exist regarding the following: faculty and staff reality and perception of engaging with students, effects of their contributions, nor how specifically faculty and administration are meeting the needs of the student veteran. To better understand the meaning of success in universities, a more in-depth analysis needs to be done on the interactions with different variables, non-traditional students including those populations that are underserved (Allen, 1999; Gaither, 2005; Rendon, Jalomo, & Nora, 2000).

Student Success for Veterans and Transition Difficulties. Student veterans are a unique group of nontraditional students on campus (Badger & McCuddy, 2014). When comparing nontraditional students and traditional students there are significant differences. Nontraditional students are oftentimes older, have family responsibilities, work outside of college to support their family, and are less engaged, thus not feeling connected to the campus community (Bauman, 2009; Dill & Henley, 2010; Forbus, Lang & Powers, 2013; Kim & Cole, 2013; Newbold, & Mehta, 2011; O'Herrin, 2011; Wurster, Rinaldi, Woods, & Liu, 2013). The research on the transition of veterans to college has been analogous in that there are feelings of ambivalence due to leaving behind their military brothers and sisters and the camaraderie that comes with military culture (DiRamio et al., 2008). Osborne (2014) reports that oftentimes the loss of military camaraderie and community results in isolation. Student veterans also seem to be disinclined to acknowledge their military or veteran status (Livingston, Havice, Cawthon, & Fleming, 2011). Parallel to these findings were the perception of traditional students' immaturity and inability to understand military culture and the experiences student veterans have lived in their relatively young lives, which has resulted in the frustration of connecting with traditional students (DiRamio et al., 2008; Durdella & Kim, 2012; Livingston et al., 2011; Rumann & Hamrick, 2010; Wheeler, 2012).

Furthermore, Ford and Vignare (2014) found that student veterans reported having difficulty with assignments and faculty expectations, associating these issues to cultural and operational differences (Glasser, Powers, & Zywiak, 2009), difficulty concentrating, forgetting basic concepts and how to study, and shuffling assignments

with family responsibilities. Moreover, several studies have documented student veteran conflicts with faculty (DiRamio et al, 2008; Elliott et al., 2011; Livingston et al., 2011; Persky & Oliver, 2010; Rumann & Hamrick, 2010). Hausmann, Schofield, and Woods (2007) state that while familial support is beneficial, the difficulty in connecting with peers on campus poses a bigger threat to academic success and progression due to the influence of integration predicting persistence in student veterans. In addition to the positive effects on academic success, student engagement,or social support might be related to an overall improvement in mental health while in college (Hefner & Eisenberg, 2009; Kawachi & Berkman, 2001). Elliott et al. (2011) found that the more social support student veterans have the less likely they are to experience debilitating PTSD symptoms. While many of these issues were initially difficult to handle, many student veterans were able to adjust due to self-discipline, persistence, focus on the mission, and training experiences in the military (Ford & Vignare, 2014).

National Survey of Student Engagement. In the early 1990's the U.S. Department of Education felt that it would be beneficial to higher education institutions if they were able to understand student experiences on their individual campuses in order to better assist students with transition and success in college (Ewell & Jones, 1996). Ewell proceeded to assemble a team that spent an enormous amount of time designing and creating a model which eventually became NSSE. This survey was first administered in 2000 with 276 colleges and universities participating (Kuh, 2009a). George Kuh became a significant member of the team that created the National Survey of Student Engagement (NSSE) which contains a group of five areas, or themes, of "effective educational

practice" (Kuh, Kinzie, Schuh, & Whitt, 2005, pp. 43). These themes are given to students in a survey format where the results of the survey are used in assisting higher education professionals pinpoint the needs of students and how to effectively support them in degree attainment and a satisfying college experience. The five themes are:

1. Academic challenge
2. Active and collaborative learning
3. Student--faculty interaction
4. Enriching educational experiences
5. Supportive campus environment

When all of these areas are included in a survey an important assessment is made on the factors, or questions, which allow higher education officials to discern the satisfaction and accomplishment of students, in addition to seeing if there are other areas of concern (Kuh et al., 2005). Several practices that were effective regarding student satisfaction and accomplishment were highlighted in Kuh, Kinzie, Schuh, and Whitt's (2005) book, Student Success in College. Many of these practices are used today in higher education: learning communities, study abroad, and first -year seminars. In order to better understand the importance and relevance of Kuh's student engagement theory a more in-depth look at the five areas of NSSE are needed.

The first area of the NSSE survey is Academic Challenge. This area was created because Kuh and his colleagues believed the key to successful learning and having quality experiences in college is for education to be creative as well as intellectually challenging (Kuh et al., 2005). Academic Challenge is representative of the time and

effort a student sets aside for 1) studying for tests, 2) getting ready for class, 3) reading assignments, 4) academic writing for journals, papers, etc. Kuh et al. (2005) claim that academic challenge also focuses on the amount of time students partake in exercises that involve using judgment, analysis and application of theory, in addition to the time and persistence of faculty expectations of students which would drive them to excel and succeed. The questions in this area are related to (Kuh et al., 2005):

1. Preparation for courses
2. Reading course assignments and writing papers
3. Ability to use higher--order thinking skills
4. Students' drive to achieve a professor's expectations
5. A higher education institution that fosters academic learning and achievement

The second area of the NSSE survey is Active and Collaborative Learning. Significant strides in learning occur when students are immersed in their educational environment and are able to apply what they have learned; this happens individually as well as working collaboratively with peers and faculty to work on difficult assignments and problem solve, which is imperative to acquiring skills necessary for job preparation and life in general (Kuh et al., 2005). Questions in this area include: (Kuh et al., 2005):

1. Ability to take part in class discussions and ask questions
2. Ability to present in class
3. Ability to work on group projects in class
4. Ability to work on a group assignment outside of class
5. Ability to assist other students in understanding course material

6. Ability to participate on projects in the community
7. Exchanging views on reading assignments and course topics with others

The third area of the NSSE survey is Student Interactions with Faculty Members. Students are more adept at logically assessing and solving issues if time is spent with faculty both inside and outside of the classroom (Kuh et al., 2005). Kuh and his colleagues believe that these intercommunications are conducive to ingrained learning, as faculty present as role models and mentors. This group of researchers also discloses the importance of faculty providing timely feedback, facilitating students' participation in research projects, and believing in student development philosophies. Survey items contained in this area are (Kuh et al., 2005):

1. Seeking assistance from an instructor regarding assignments and grades
2. Career planning with an advisor or instructor
3. Collaborating on a research project with faculty
4. Receiving immediate feedback on assignments and writing projects from instructors
5. Participating in committees, orientations, or other events with faculty

The fourth area of the NSSE survey is Enriching Educational Experiences. An important aspect of academic effectiveness is providing various learning alternatives, internal and external to the university, for students to experience diversity allowing integral learning about oneself in addition to a comprehension and awareness of other cultures (Kuh et al., 2005). Kuh and his associates also believed that technology is a

valuable enhancement and facilitator of learning as it increases collaboration with peers and faculty, which ultimately aids in achieving a more meaningful learning experience, thus an investment in their education. These experiences are characterized by the following items on the survey (Kuh et al., 2005):

1. Higher education institutes that facilitate and promote diversity among students
2. Utilization of technology in assignments to enhance learning
3. Conversing with students from a different background and race
4. Partaking in:
    - Internships
    - Volunteering or community service
    - Study abroad
    - Independent study

The fifth, and final, area of the NSSE survey is Supportive Campus Environment. Kuh et al. (2005) found that the performance of students excels when their college is committed to their academic achievement and success by providing a supportive environment that follows the university's mission and vision in addition to promoting and enhancing positive relationships among different cultures and groups. Questions that depict an environment on campus that does the following (Kuh et al., 2005):

1. Advocates positive relationships among students and their associates
2. Advocates positive relationships among students and faculty
3. Advocates positive relationships among students and administration

4. Supports academic success
5. Supports students in coping with responsibilities outside of academia
6. Supports students' social development

The NSSE was updated in 2013 (http://nsse.indiana.edu/nsse-update/). The various survey changes ranged from minute to completely fresh subject matter. The updated NSSE had a purpose:

1. Create specific measures in relation to productive teaching and learning;
2. Clarify current measures and scales;
3. Improve the accuracy of the survey language;
4. Modernize terminology used to emulate current educational practices.

From the goals/purpose of the update, the five areas were reduced to four themes of significance, leaving out “Enriching educational experiences.” According to the NSSE website (http://nsse.indiana.edu/nsse-update/) the new areas are located in Appendix B.

Adult Transition Theory

Schlossberg's Transition Theory. All people, at all stages of life, experience transition in one form or another. There is the transition from grade school to middle school, middle school to high school, and high school to college. There are also transitions in life as adults when experiencing career changes, marriage, divorce, raising children, or moving to a different state. Thus, all college students are in various forms of transition (Laanan, 2006). Schlossberg (1981) states that, "A transition can be said to occur if an event, or nonevent, results in a change in assumptions about oneself and the world thus requires a corresponding change in one's behavior and relationships" (pp. 5).

Schlossberg (1984) built her transition theory on psychosocial development where the goal was to actualize a theoretical framework that promoted the awareness of adults in transition and how one can adapt, assimilate and cope (Evans, Forney, Guido, Patton, & Renn, 2009). Accordingly, Gardner (2009) defined psychosocial development where one could discern significant, or relevant, issues people may experience throughout their life and figure out how to interpret and characterize themselves, defining their relationships with those around them, and the direction and shaping of their life.

Schlossberg and several of her colleagues (Goodman & Anderson, 2012; Goodman, Schlossberg, & Anderson, 2006; Schlossberg, Waters, & Goodman, 1995) found that there are many forces that determine one's ability to adapt and cope with transition. From the beginning, Schlossberg (1984) believed that the more disruption a transition creates in a person's life, the more resources will be necessary for that person to cope and assimilate to that transition and change in one's life. Goodman and Anderson (2012) acknowledged that the setting and circumstance of every transition may be different; therefore, varying resources might be deemed necessary to manage the transition. This theory fits in well with the student veteran population as they are transitioning from a highly structured military environment to one that is self-directed and lacking in structure (Livingston, Havice, Cawthon, & Fleming, 2011). Schlossberg (1984) described chronic hassles (e.g. delayed benefits, incorrectly prepared paperwork, different cultures) as a deterrent for handling change, thus, the creation of four key factors in influencing a person's skill and understanding of coping strategies in order to

adjust to transition. These four key factors are known as the 4 S's: situation, self, support, and strategies (Schlossberg, 1984). While these key factors are important in understanding how student veterans can cope and assimilate to the new transition of entering a higher education academic culture from a military culture, Schlossberg's model has not been utilized as an empirical framework when understanding student veterans; however, the theory correlates to current research and specific challenges military members and veterans experience when transitioning to college (Griffin & Gilbert, 2015).

The first factor in Schlossberg's 4S theory is *situation*. This relates to how much a situation impacts a person's ability to function in life (Evans et al., 2010; Goodman et al., 2006). The situation, or change, is perceived as positive or negative, permanent or temporary, and whether or not there are other external or internal stressors influencing and/or creating obstacles to the change/transition (Goodman & Anderson, 2012; Goodman et al., 2006; Schlossberg et al., 1995). Wheeler (2012) expands on this factor by stating that the situation includes role changes, any feelings one may be experiencing due to the transition, in addition to the timing of the event, and how much control one has over various factors influencing the change/transition. Elliott, Gonzalez, and Larsen (2011) relate this factor to student veterans' challenges when encountering reporting structures on campus and disparaging comments by faculty members, while Glasser, Powers, and Zywiak (2009) add that general complaints lead to student veterans' perceptions of diminished accountability and responsibility on college campuses. Additionally, financial situations might arise due to paperwork filled out incorrectly which delays payment of benefits to the college and student. This can cause stress that

affects student perceptions and therefore create external stressors that influence the students' ability to assimilate and cope with the transition (Ackerman et al., 2009; Moon & Schma, 2011).

The second factor is *self*. Schlossberg et al. (1989) explain that external factors, such as demographic characteristics, directly influence people's perception and assessment of life, in addition internal factors, such as morals, values, and optimism, shape people's outlook and how they cope with various transitions in their life. Optimism, the feeling of control, and positive perception of situations/transitions has a higher likelihood of a positive outcome (Evans et al., 2010; Goodman & Anderson, 2012; Goodman et al., 2006; Schlossberg et al., 1995). As Livingston et al. (2011) pointed out, military men and women learn to be self-sufficient, mentally strong and focused, in addition to being persistent and staying the course; the importance of these characteristics when handling transition is imperative.

The third factor is *support*. Schlossberg (2011) stresses that, "The support available at the time of transition is critical to one's sense of well-being" (pp. 160). Sargent and Schlossberg (1988) point out that support could be those people who assisted the person in transition, as well as those people who hampered the person in transition. Livingston et al. (2011) disclosed that while participants in their study utilized resources of support, it was a very small network of fellow student veterans or faculty members who were veterans. Although Livingston and his colleagues found that student veterans found support on campus, other researchers observed that student veterans felt unsupported on campus and that non-veteran students, administration and faculty did not

understand them nor took the time to listen to what they needed (Cook & Kim, 2009; Hermann, Hopkins, Wilson, & Allen, 2009). Literature that has focused on the non-traditional student in higher education affirms the essential role of faculty and how their interactions with students influence progression to degree completion (Bean & Metzner, 1985; Weidman, 1989). Furthermore, Bean and Metzner (1985) proceeded to claim that the ability to assimilate academically is more influential on successful degree attainment of nontraditional students such as veterans, then the longing to integrate socially. This statement is in alliance with Vacchi (2012) who agrees that student veteran success is inspired by the role faculty contributes academically; however, this idea has not been expounded upon in current literature.

The fourth, and final, factor in Schlossberg's 4S theory is *strategies*. Evans et al. (2010) define strategies as one's ability to adapt to transition through individual mental focus, outlook, and behavior (Merriam & Caffarella, 1999). Taylor (1998) concurs that strategies utilized for coping with situations/transitions are definitive behavioral and psychological exercises that one can use to accept, diminish, and downgrade those transitions that are stressful. While there are three types of responses to coping -change the situation, control the context of the problem, and regulate stress levels once the transition has happened- there are also four approaches to coping as one uses the responses above: seek out information, prompt action, cessation of action, and internal psychological behavior (Evans et al., 2010; Goodman & Anderson, 2012; Goodman et al., 2006). Schlossberg (1984) understood that transition can cause unbalance in a person's life; thus, new behaviors may need to be employed. Therefore the ability to

understand student veterans' transition challenges, and essentially the coping mechanisms they are utilizing, will help to better serve this population of military men and women (Wheeler, 2012). Griffin and Gilbert (2015) suggest that higher education institutions can assist student veterans' transition to colleges which will promote their ability to change the situation, control the context of the problem, and regulate stress levels. Strategies that can and have been implemented are: creating an office specifically for student veterans (Ackerman et al., (2009); appointing specific veteran related issues to administrative point persons (Bauman, 2009; Vance & Miller, 2009); committees, student groups, faculty and staff training, and mentoring programs (Burnett & Segoria, 2009). While there are several researchers in support of Schlossberg's 4S Theory, Vacchi and Berger (2014) argue that her theory is "insufficient to carry out research" (pp. 140) for student veterans.

Livingston's Student Veteran Academic and Social Transition Model. The Student Veteran Academic and Social Transition Model (SVASTM) was created by Livingston in 2011 at Clemson University. This model was originated to depict grounded theory as it assists in the understanding of reenrollment management that student veterans' experience and asserts that while student veterans might endure challenges academically, upon entering college for the first time, their social acculturation is one that is of greater concern. Livingston et al. (2011) report that the military had a significant influence in the lives of student veterans returning to campus. They found that service members disclosed that the military matured them and gave them a better appreciation of

the world, however veterans exaggerated the age gap with non-veteran students which created social distance (Bauman, 2009; Elliott, Gonzalez, & Larsen, 2011).

The first cornerstone category, and most important, of the SVASTM is *military influence*. Due to the significant differences between military culture and academic culture the perception of managing re-enrollment into higher education became one of focus on degree attainment and leaving socialization behind (Livingston et al., 2011). Moreover, Osborne (2014) found that veterans had a difficult time asking for assistance from administration and instructors because of the military cultures' influence of service members' postulation of self-sufficiency and adeptness. He proceeded to say that many of the veteran participants in his study divulged that due to their extensive life experiences, while serving in the military, they did not feel a connection with non-veteran students. Accordingly, Ford and Vignare (2014) state that student veterans expressed a sense of detachment and yearned for the close relationships they had with fellow service members when enlisted. Tinto's work (1993) focused on the importance of social support and interaction in retaining students in higher education. This seems disconcerting when looking at the vast differences in military and academic cultures, the difficulty in student veteran transition, and the academic success of this population.

The second cornerstone of Livingston's SVASTM is *invisibility*. Livingston felt that this cornerstone had significance because the military influence, or military culture, created service members who were mature, humble, and prideful. This meant that these veterans did not want to be separated out from traditional students by disclosing their veteran status which in turn made the student veterans invisible on campus (Livingston et

al., 2011). In agreement, Strickley (2009) found that due to their life experiences, student veterans' maturity level is much greater; thus, they felt disconnected from the traditional students on college campuses. Moreover, and contributing to the feeling of "invisibility," military influence trains service men and women to operate as a team, and as a 'whole unit', versus as an individual. Whereas, institutions of higher education operate and promote students to be "individuals" and to focus on their individual strengths that make them stand out from their peers (Ryan, Carlstrom, Hughey, & Harris, 2011). Livingston et al. (2011) report that the invisibility many student veterans reported feeling affected whether or not they would seek assistance and support from higher education administrators and faculty. This group of researchers also found that administrators proclaimed it problematic to help student veterans because they seemed to be "invisible" and not disclosing the fact that they were active military or veterans.

The third cornerstone of Livingston's SVASTM is *support*. According to Livingston et al. (2011) academic support was not something that student veterans appeared to seek out; however, they sought out social support via family and friends, student veteran organizations, fraternities, and various business organizations. Non-traditional students, such as student veterans who had supportive parents or spouses, appeared to cope more easily with academic stressors (Dill & Henley, 1998; Radford & Wun, 2009). At variance with the mentioned support above, Ryan et al. (2011) found that with deployments and military culture and experiences, student veterans did not feel supported by non-veteran students or traditional students; therefore the disconnection was seen as stressful. The stressors that student veterans experience might be alleviated

with the presence of social support (Strine, Kroenke, Dhingra, Balluz, Gonzalez, Berry, & Mokdad, 2009) that is comparable to the support received from fellow service members (Barber, Rosenheck, Armstrong, & Renwick, 2008). Military service men and women often refer to comrades as "family" (Ove, 2010), thus the importance of engaging with other student veterans on campus (Ackerman, DiRamio, & Garza Mitchell, 2009; Glasser, Powers, & Zywiak, 2009).

The fourth cornerstone of Livingston's SVASTM is *campus culture*. His view of campus culture was the influence of the environment on the re-enrollment process of student veterans. There were varying perceptions regarding the attitudes of administration, faculty and students. Perceptions were positive with reference to faculty (DiRamio et al., 2008; Elliott et al., 2011; Persky & Oliver, 2010); however, administrators and students were viewed as disinterested, not helpful, and apathetic (Livingston et al., 2011). Contrary to the positive perceptions of faculty, Ford and Vignare (2014) found that several pieces of literature disclosed student veterans felt disrespected by faculty in addition to creating a hostile environment when discussing the military and war.

The fifth, and final, cornerstone of Livingston's SVASTM is *navigating re-enrollment*. Livingston et al. (2011) state that student veterans experienced various difficulties with the transition from that of daily structure, as an active service member, to an environment of self-direction. While encountering these difficulties was stressful, student veterans were not deterred from re-enrolling in college as they were able to adapt to this different culture and overcome challenges (Leibowitz & Schlossberg, 1982). A

large part of successfully navigating re-enrollment and more readily adapting to this new academic environment is the support, knowledge, and expertise of higher education administration, faculty, and students (Lighthall, 2012).

Summary

While there have been numerous insightful qualitative studies on student veterans and difficulties with adjustment from military culture to academic/college culture (Ackerman & DiRamio, 2009; DiRamio et al., 2008; Livingston et al., 2011; Rumann & Hamrick, 2010), there has been little quantitative research done in regard to this particular sub-group of nontraditional students and how engagement, more specifically with peers, advisors and faculty, contributes to their academic success. Vacchi and Berger (2014) concur that while current literature investigates the student veteran experience there is a "holistic understanding" (pp. 115) that is missing and would allow higher education institutions to improve student veterans' college experience and academic success. There is very little research regarding the differences in GPA and perception of quality education between veterans, nontraditional and traditional students to academic success.

Additionally, historical research shows that there were no significant differences between student veterans and traditional students when it came to performance in the classroom, and degree attainment; there were also no differences found between nontraditional and traditional students (Frederiksen & Schrader, 1950; Olson, 1974; Spitzer, 2000). Radford (2011) found that 60% of student veterans between the ages of 24 and 39 graduated with a degree from college. While this was one of the most current

studies of degree attainment, empirical data are needed that would be informative of student veteran success in higher education within the last five years (Vacchi & Berger, 2014). This seems to be a significant amount of time lapse regarding research in this area, especially considering the growth of student veteran enrollment in the last five years and the participation of universities and colleges in the aggressive recruitment of veterans and active military members.

Researchers consider the outcome that student engagement related to peers, advisors, and faculty (Bean & Metzner, 1985; DiRamio et al., 2008; DiRamio & Jarvis, 2011; Rumann & Hamrick, 2010) may have on student veteran success through qualitative research; little quantitative research has been done as to the impact of various variables and influences on student veteran success. Research has shown that student veteran success might be improved by higher education institutions providing an environment that is supportive; however, there are gaps in the research that tie those findings and the definition of what a "supportive" environment is for student veterans (Herrmann, Raybeck, and Wilson, 2008). NSSE (2010) published results of their study and claim that student veterans disclosed inadequate levels of support from the institutions they were attending and were thus not as engaged as their traditional student peers. NSSE (2010) deduced that higher education institutions should create new ways to engage student veterans in order to create a successful environment. This study provides empirical data that fills gaps in the literature, more specifically the effects of engagement on GPA. A quantitative analysis is used to investigate the impact of engagement on student success. This study looks at differences in perception between student veterans,

nontraditional and traditional students, and NSSE engagement indicators. Understanding the perceptions of students regarding the campus and interactions with students, advisors, and faculty is important in determining the future direction of universities. If students are reporting, which is shown by comparing NSSE responses and GPA, poor quality interaction with advising and faculty, institutions may need to change tactics by enforcing mandatory meetings with advisors before registration. Faculty might require meetings as part of their grade for a course.

CHAPTER 3

METHODS

This chapter is a review of the methods used in the study that includes: the research design, data source, independent and dependent variables.

Data Source

In the early 1990's the U.S. Department of Education felt that it would be beneficial to higher education institutions if they were able to understand student experiences on their individual campuses, to better assist students with transition and success in college (Ewell & Jones, 1996). This survey was first administered in the year 2000 with 276 colleges and universities participating (Kuh, 2009). George Kuh was a significant member of the team that created the National Survey of Student Engagement (NSSE) which contains groups of engagement indicators of "effective educational practice" (Kuh, Kinzie, Schuh, & Whitt, 2005, pp. 43).

Evidence suggests that self-reports in student surveys are reliable and valid if certain conditions are met (Astin, 2005; Pascarella & Terenzini, 2005): 1) Students know the requested information; 2) Questions in the survey are clear and explicit to the participant; 3) Questions in the survey are specific to a current activity; 4) Participants believe the questions asked require thoughtful responses; 5) Survey questions are requesting information that can be verified; 6) Survey questions do not threaten or violate privacy or sway particpants to respond in a socially appropriate way.

The NSSE relies completely on testimony of the student. Kuh (2001) claims that the survey questions have "substantial face validity" (pp. 13). Convergent validity is tested in this study when exploring relationships between variables such as institutional effectiveness and perceptions of institutional support (Pascarella & Terenzini, 2005).

This study examines the effects of student engagement, by utilizing the survey instrument, the National Survey of Student Engagement (NSSE). NSSE is considered the most important source of data on college student engagement nationally. Grade point average (GPA) is the operational definition of academic success for this particular study. An examination of student status (student veteran, nontraditional or traditional student) is the primary focus of the analysis. Additional analyses investigate the differences in NSSE responses between the three groups of students. The data are secondary data collected from the university's Office of Institutional Research and Assessment.

This design compares two years that the survey was administered, 2011 and 2013, which encompasses students in their senior year. This allowed for a more in-depth study of the population. This design provides the ability to generalize from a large sample to a more specific and targeted population of student veterans. This study determines if differences exist between student veterans, nontraditional and traditional students and investigates other independent variables mentioned later in this chapter.

Study Sample and Analysis

The participants for this study were derived from senior undergraduate students taking the NSSE survey in the spring of both 2011 and 2013 at a four-year public urban

university. The enrollment at this urban university is approximately 37,700 students. The undergraduate population is approximately 28,400. Nontraditional students, more specifically the sub-group of student veterans, were pulled from this data. The participants in this study were non-identifiable.

The Office of Institutional Research and Assessment collected the data utilized in this study. The dataset was obtained from NSSE administered to current enrolled senior students in the spring semesters of 2011 and 2013. This particular study used only the dataset relevant to student veterans, non-traditional students as a whole, and traditional students. Data collection involved student record abstraction from institutional records, entered by the office's personnel. The researcher ethically protected the identity of participants by adhering to Institutional Review Board (IRB) regulations at this urban university. The necessary forms were completed to obtain permission for this quantitative research study.

Data analysis was completed using Statistical Program for Social Sciences (SPSS). Pearson correlations were computed to find correlations between Cumulative GPA and NSSE sub-scales, known as Engagement Indicators, and specific questions in both 2011 and 2013 samples. This was to determine if a relationship exists between engagement and GPA. The more a student engages the better the GPA. A one-way ANOVA was computed to compare GPAs among the three groups of students in both samples, in addition to comparing perceptions of educational experience. The Wilks' Lambda test statistic was used in a multivariate analysis of variance (MANOVA) to test

whether or not there are differences in perception between the three student groups and engagement indicators.

Variables

Creswell (2009) states that quantitative methods emphasize testing specific research questions with a distinctive set of variables and examining relationships among variables and tests theories. He informs that "These variables, in turn, can be measured, typically on instruments, so that numbered data can be analyzed using statistical procedures" (Creswell, 2009, pp. 4). The independent variables used in this study are NSSE sub-scales, engagement indicators, and specific survey items pertaining to relationship and quality of interactions with faculty, advisors, peers, administrative offices and student services staff. The NSSE sub-scales and survey questions were different for 2011 and 2013. The sub-scales, or engagement indicators, used in 2011 were: Academic Challenge, Active and Collaborative Learning, Student-Faculty Interaction, Enriching Educational Experiences, and Supporting Campus Environment. The sub-scales, or engagement indicators, used in 2013 were: Higher-Order Learning, Reflective and Integrative Learning, Learning Strategies, Quantitative Reasoning, Collaborative Learning, Discussion with Diverse others, Student-Faculty Interaction, Effective Teaching Practices, Quality of Interactions, and Supportive Environment.

The two dependent variables used in this study were: cumulative Grade Point Average (GPA) achieved by the student at the time the survey was administered i.e. spring 2011 and spring 2013; and student group responses which were perceptions of veterans, nontraditional and traditional students regarding relationships and interactions

with faculty, advisors, peers, administrative offices and student services staff. Independent and dependent variables used in this study along with correlating research questions are found in Table 3.1 for the 2011 Sample and 3.2 for 2013 Sample.

This section reports the research questions, independent and dependent variables, and statistical analysis used for each question, which is summarized in table 3.1 for 2011 Sample and 3.2 for the 2013 Sample.

Table 3.1

Research Questions, Variables, Statistical Analysis - 2011 Sample

Research Question	Independent Variable	Dependent Variable	Statistical Analysis
1. Is there a positive relationship between engagement and GPA for student veterans?	NSSE Engagement Indicators: 1. Academic Challenge 2. Active and Collaborative Learning 3. Student-Faculty Interaction 4. Enriching Educational Experiences 5. Supportive Campus Environment	GPA	Pearson correlation coefficient
2. Is there a difference between veterans, nontraditional, and traditional students in their perception of the university as measured by the NSSE engagement indicators?	NSSE Engagement Indicators: 1. Academic Challenge 2. Active and Collaborative Learning 3. Student-Faculty Interaction 4. Enriching Educational Experiences 5. Supportive Campus Environment	Veterans, Non-Traditional Students, Traditional Students perception	Three-way MANOVA and Omnibus Wilks' Lambda

Table 3.1 continued

Research Question	Independent Variable	Dependent Variable	Statistical Analysis
3. How does the quality of interaction with advisors, students, and faculty affect GPA in 2011 and 2013 NSSE responses among veterans, nontraditional and traditional students?	Quality Interactions (individual items): 1. Overall, how would you evaluate the quality of academic advising; 2. Discussed grades or assignments with faculty 3. Received prompt written or oral feedback 4. Work on a research project with a faculty member 5. Relationship with other students 6. Relationship with faculty members 7. Relationship with administrative personnel 8. Institutional emphasis: Helping you cope with your non-academic responsibilities	GPA	Pearson correlation coefficient

Table 3.1 continued

Research Question	Independent Variable	Dependent Variable	Statistical Analysis
4. Are there differences in individual NSSE item responses between the three student groups: student veterans, nontraditional and traditional students?	Quality Interactions (individual items): 1. Overall, how would you evaluate the quality of academic advising; 2. Discussed grades or assignments with faculty 3. Received prompt written or oral feedback 4. Work on a research project with a faculty member 5. Relationship with other students 6. Relationship with faculty members 7. Relationship with administrative personnel 8. Institutional emphasis: Helping you cope with your non-academic responsibilities	Veterans, Non-Traditional Students, Traditional Students perception	One-way ANOVA

Table 3.2

Research Questions, Variables, Statistical Analysis - 2013 Sample

Research Question	Independent Variable	Dependent Variable	Statistical Analysis
1. Is there a positive relationship between engagement and GPA for student veterans?	NSSE Engagement Indicators: 1. Higher-Order Learning 2. Reflective and Integrative Learning 3. Learning Strategies 4. Quantitative Reasoning 5. Collaborative Learning 6. Discussions with Diverse Others 7. Student-Faculty Interaction 8. Effective Teaching Practices 9.Quality of Interactions 10.Supportive Environment	GPA	Pearson correlation coefficient
2. Is there a difference between veterans, nontraditional, and traditional students in their perception of the university as measured by the NSSE engagement indicators?	NSSE Engagement Indicators: 1. Higher-Order Learning 2. Reflective and Integrative Learning 3. Learning Strategies 4. Quantitative Reasoning 5. Collaborative Learning 6. Discussions with Diverse Others 7. Student-Faculty Interaction 8. Effective Teaching Practices 9.Quality of Interactions 10.Supportive Environment	Veterans, Non-Traditional Students, Traditional Students perception	Three-way MANOVA and Omnibus Wilks' Lambda

Table 3.2 continued

Research Question	Independent Variable	Dependent Variable	Statistical Analysis
3. How does the quality of interaction with advisors, students, and faculty affect GPA in 2011 and 2013 NSSE responses among veterans, nontraditional and traditional students?	Quality Interactions (individual items): 1. Asked another student to help you understand course material 2. Explained course material to one or more students 3. Prepared for exams by discussing or working through course material with other students 4. Worked with other students on course projects or assignments 5. Quality of interaction with academic advisors 6. Quality of interactions with students 7. Quality of interactions with faculty 8. Quality of interactions with other administrative staff and offices 9. Quality of interactions with student services staff	GPA	Pearson correlation coefficient

Table 3.2 continued

Research Question	Independent Variable	Dependent Variable	Statistical Analysis
4. Are there differences in individual NSSE item responses between the three student groups: student veterans, nontraditional and traditional students?	Quality Interactions (individual items): 1. Asked another student to help you understand course material 2. Explained course material to one or more students 3. Prepared for exams by discussing or working through course material with other students 4. Worked with other students on course projects or assignments 5. Quality of interaction with academic advisors 6. Quality of interactions with students 7. Quality of interactions with faculty 8. Quality of interactions with other administrative staff and offices 9. Quality of interactions with student services staff	Veterans, Non-Traditional Students, Traditional Students perception	One-way ANOVA

CHAPTER 4

RESULTS

Introduction

The results of the statistical analyses are presented in this chapter. All statistical analyses were based on data collected from the NSSE which was obtained through the Office of Institutional Research. Two comments are relevant to the way the results are presented. First, although the major focus of the research is on student veterans, a decision was made to present all of the analyses by comparing three groups: veterans, non-traditional students and traditional students. This decision was made since a majority of veterans are nontraditional and any inference about this group must be made in this context. Second, this study uses data from two administrations of the NSSE: 2011 and 2013. During that time the NSSE was revised, except for a small number of questions; thus, no direct comparison is possible across the two years. As such, all analyses will be presented in parallel for the two years.

The chapter is presented in two sections. Section I presents the demographic information on the three groups. Section II presents the analyses relevant to the major research questions. Additional analyses, that are intended to extend and elaborate the analyses related to the research questions will follow at the end of each research question. A brief summary of the results will be presented at the end of the chapter.

Demographic Data on the Subjects

Data on gender and race of the participants are presented in Table 4.1. The sample was divided into white and non-white.

Table 4.1

Demographic Data on the Participants

	2011 Cohort			2013 Cohort		
	Veterans	Non-Traditional Students	Traditional Students	Veterans	Non-Traditional Students	Traditional Students
Sample Size	30	378	1,254	49	366	1,273
Gender:						
Male	19	145	463	39	156	448
Female	11	233	791	10	210	825
Race:						
White	14	193	755	28	189	798
Non-White	16	185	499	21	177	475

It is evident from Table 4.1 that there are noticeable differences among the three groups. First, there are far more males in the veteran group than in either of the other two groups (63.3% in 2011 as compared to 38.4% for non-traditional students and 36.9% for traditional students; 79.6% in 2013 as compared to 42.6% and 35.2%). Second, the racial distribution is also more diverse with a greater percentage of veterans indicating that they are non-white. Neither of these differences would be unexpected, given the nature of the veteran population.

Research Question 1*:* Is there a positive relationship between engagement and GPA for student veterans?

To answer this question Pearson correlations were computed between engagement indicators of the NSSE and the student's GPA. These correlations were computed separately for the three groups for the 2011 and 2013 samples as the engagement

indicators are different for each year. The correlations for the 2011 sample are presented in Table 4.2 and for the 2013 sample in Table 4.3.

Table 4.2

Correlations between Cumulative GPA and the NSSE Sub-scales for 2011 Sample

	Veterans	Non-Traditional Students	Traditional Students
Academic Challenge	-.052	.034	.075**
Active and Collaborative Learning	.205	-.027	.076**
Student-Faculty Interaction	.115	-.081	.105**
Enriching Educational Experiences	.053	.019	.186**
Supportive Campus Environment	.254	-.124*	-.043

*p< .05; **p < .01

Table 4.3

Correlations between Cumulative GPA and the NSSE Sub-scales for 2013 Sample

	Veterans	Non-Traditional Students	Traditional Students
Higher-Order Learning	-.108	.003	.063*
Reflective and Integrative Learning	.054	.059	.118**
Learning Strategies	-.137	.056	.023
Quantitative Reasoning	-.061	-.045	-.064*
Collaborative Learning	-.254	-.103	-.018
Discussions with Diverse Others	-.126	.121*	.031
Student-Faculty Interaction	-.268	.030	.132**
Effective Teaching Practices	.069	.053	.042
Quality of Interactions	-.082	.181*	-.033
Supportive Environment	-.146	.079	.010

*p< .05; **p < .01

Because of the extreme difference in sample size among the three groups, it is difficult to directly compare the correlations in terms of statistical significance. As shown in Table 4.2 and 4.3 none of the correlations for veterans are significant, although the correlations for Active and Collaborative Learning and for Supportive Campus Environment in the 2011 sample and for Student-Faculty Interaction in the 2013 sample were larger for the veterans than for either of the other two groups. In general, all of the correlations in Table 4.2 are small even though several are statistically significant due to the large sample sizes for the nontraditional and traditional samples. Overall, the conclusion from these correlations is that there are, at best, modest correlations between student engagement ratings from the NSSE and GPA.

As an additional analysis, the GPAs for the three groups were compared by one-way ANOVAs. A comment is necessary about this analysis and all of the remaining analyses that compare the three groups. Although the overall sample size for these analyses is large, the sample size for the veterans is both small in an absolute sense, and is very small as compared to the other two groups. This represents a problem for all of the ANOVA-based analyses. While ANOVA does not require equal sample sizes among the groups, the assumption is that the groups are not disproportionately unequal. All of the analyses done comparing the veterans and the other two groups seriously violate this assumption. This must be kept in mind in reviewing the analyses that are presented in this chapter. These results for the GPA analyses are presented in Table 4.4.

Table 4.4

GPA for the Three Groups

	GPA for Veterans	GPA for Non-Traditional Students	GPA for Traditional Students	F	Significance	Partial Eta Squared
2011 Sample	3.23	3.16	3.23	3.13	.044	.004
2013 Sample	3.24	3.14	3.25	5.96	.003	.016

As shown in Table 4.4, there is a significant difference in GPA for both samples. In both cases, the non-traditional students have significantly lower GPAs as compared to the veterans and the traditional students. A post hoc Tukey Test for the 2011 sample indicated that the veterans and traditional students did not differ from each other but both had significantly higher GPAs as contrasted to the non-traditional students. The same result was found for the 2013 sample. In both cases, however, the effect size was small.

Research Question 2: Is there a difference between veterans, nontraditional, and traditional students in their perception of the university as measured by the NSSE engagement indicators?

To answer this question, a three group MANOVA was computed on the various engagement indicators of the NSSE. The means and standard deviations for veterans, nontraditional and traditional students are presented in Table 4.5 for the 2011 sample.

Table 4.5

Means and (Standard Deviations) for the 2011 Sample

	Veterans	Non-Traditional Students	Traditional Students
Academic Challenge	56.96 (13.72)	57.91 (14.54)	58.25 (13.37)
Active and Collaborative Learning	49.44 (16.52)	49.89 (17.06)	49.23 (16.34)
Student-Faculty Interaction	36.15 (23.26)	37.87 (19.55)	40.77 (20.80)
Enriching Educational Experiences	34.48 (18.53)	33.85 (16.70)	44.27 (18.62)
Supportive Campus Environment	55.00 (18.49)	55.49 (20.74)	54.31 (18.64)

Table 4.6

Omnibus Wilks' Lambda for 2011 Sample

Multivariate Tests[a]						
Effect	Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Wilks' Lambda	.919	14.123[b]	10.000	3278.000	.000	.041

The omnibus Wilks' Lambda test for the data in Table 4.5 was significant (Wilks' Lambda = .919, p = .000, partial eta squared = .041). There were two significant differences between the groups: Student Faculty Interaction and Enriching Educational Experiences. As shown in Table 4.6, veterans and non-traditional students had significantly lower scores on both of these components of the NSSE as compared to

traditional students (F for Student-Faculty Interaction = 3.38, p = .034, partial eta squared = .004; F for Enriching Educational Experiences = 49.37, p = .000, partial eta squared = .057). The post hoc Tukey test indicated that the veterans had a significantly lower mean than the traditional students; the comparison of the traditional students to the non-traditional students was not significant. For Enriching Educational Experiences the veterans and the non-traditional students had significantly lower means as compared to the traditional students. The means and standard deviations for the three groups for the 2013 sample are presented in Table 4.7.

Table 4.7

Means and (Standard Deviations) for the 2013 Sample

	Veterans	Non-Traditional Students	Traditional Students
Higher-Order Learning	40.24 (16.05)	43.20 (13.42)	42.11 (13.37)
Reflective and Integrative Learning	39.69 (13.44)	39.27 (12.13)	40.09 (12.64)
Learning Strategies	42.60 (12.46)	43.73 (12.66)	39.79 (14.32)
Quantitative Reasoning	32.85 (15.52)	31.22 (16.58)	28.60 (17.66)
Collaborative Learning	30.98 (14.93)	30.29 (13.67)	32.86 (13.20)
Discussion with Diverse others	45.73 (12.33)	43.56 (16.36)	46.07 (14.39)
Student-Faculty Interaction	21.10 (16.79)	20.78 (15.46)	24.19 (15.98)
Effective Teaching Practices	38.95 (13.66)	41.17 (13.89)	39.77 (13.00)
Quality of Interactions	40.73 (15.14)	40.22 (12.53)	37.50 (11.21)
Supportive Environment	31.93 (15.99)	32.15 (14.07)	34.32 (13.67)

Table 4.8

Omnibus Wilks' Lambda for 2013 Sample

Multivariate Tests[a]						
Effect	Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Wilks' Lambda	.925	5.348[b]	20.000	2692.000	.000	.038

The omnibus Wilks' Lambda was significant (Wilks' Lambda = .925, p = .000, partial eta squared = .038). There were significant differences on all of the separate scales except for Reflective and Integrative Learning and Effective Teaching Practices. As shown in Table 4.7, the pattern of the means is complex with different groups having the highest mean for some variables and the lowest for others. The effect size for these comparisons, however, is generally small.

As an additional analysis the three groups were compared on the question: How would you evaluate your entire educational experience at this institution? Since this question occurred in both the 2011 and 2013 survey, the data can be directly compared. The responses to this question are presented in Table 4.9.

Table 4.9

How would you evaluate your entire educational experience at this institution?

	Poor (1)	Fair (2)	Good (3)	Excellent (4)	Mean
2011:					
Veterans	1 (3.3%)	7 (23.3%)	12 (40.0%)	10 (33.3%)	3.03
Non-Traditional	15 (4.0%)	49 (13.0%)	189 (50.0%)	125 (33.1%)	3.12
Traditional	29 (2.3%)	197 (15.8%)	650 (51.8%)	372 (29.8%)	3.09
2013:					
Veterans	1 (2.0%)	6 (12.2%)	22 (44.9%)	20 (40.8%)	3.24
Non-Traditional	10 (2.8%)	49 (13.5%)	188 (51.8%)	116 (32.0%)	3.13
Traditional	18 (1.4%)	172 (13.7%)	639 (50.6%)	434 (34.3%)	3.18

The means were compared by one-way ANOVAs; none were statistically significant.

Research Question 3: How does the quality of interaction with advisors, students, and faculty affect GPA in 2011 and 2013 NSSE responses among veterans, nontraditional and traditional students?

The following questions were asked differently on the 2011 and 2013 NSSE surveys. A Pearson Correlation was computed to analyze specific questions and relationships with GPA in the 2011 and 2013 NSSE responses. Table 4.10 contains the results of the Pearson Correlations in the 2011 sample, followed by Table 4.11 which contains the outcomes of the 2013 sample.

Table 4.10

Correlations with Cumulative GPA and Specific Items for the 2011 Sample

Item	All Students	Veterans	Non-Traditional	Traditional
Overall, how would you evaluate the quality of academic advising	.028	.510**	-.078	.060*
Discussed grades or assignments with faculty	-.028	.196	-.163**	.003
Received prompt written or oral feedback	.074**	.229	-.025	.110**
Work on a research project with a faculty member	.070**	.142	-.032	.091**
Relationship with other students	.006	.260	-.032	.007
Relationship with faculty members	.117**	.351	.046	.147**
Relationship with administrative personnel	-.036	.089	-.133**	-.002
Institutional emphasis: Helping you cope with your non-academic responsibilities	-.046	.123	-.161**	-.002

**p<.01; *p<.05

As shown in Table 4.10 the correlations are, as before, generally small. The one noticeable difference is for the veterans for the overall rating of the quality of academic advising where there is a strong positive correlation with GPA. The correlations for the 2013 sample are contained in Table 4.11.

Table 4.11

Correlations with Cumulative GPA and Specific Items in the 2013 Sample

Item	All Students	Veterans	Non-Traditional	Traditional
Asked another student to help you understand course material	-.121**	-.373*	-.210**	-.121**
Explained course material to one or more students	.088**	-.040	.064	.085**
Prepared for exams by discussing or working through course material with other students	-.054*	-.400**	-.131*	-.016
Worked with other students on course projects or assignments	-.025	.014	-.056	-.015
Quality of interaction with academic advisors	.002	-.092	.076	-.017
Quality of interactions with students	.031	-.165	.116*	.002
Quality of interactions with faculty	.154**	.025	.215**	.139**
Quality of interactions with other administrative staff and offices	-.059*	.070	.162**	-.109**
Quality of interactions with student services staff	-.002	.050	.144**	-.038

Perhaps the two most interesting correlations are the significant negative correlations for the veterans asking another student for help and the question about preparing for exams. As shown in the table, the less the veterans did this the lower were their GPAs.

Research Question 4: Are there differences in individual NSSE item responses between the three student groups: veterans, nontraditional and traditional students?

This question was answered by doing one-way ANOVAs to test differences among student veterans, nontraditional and traditional students' responses among individual items on the NSSE. Table 4.12 represents the results from the 2011 sample while Table 4.13 represents results from 2013.

Table 4.12

Differences between the Three Groups on the Items in 2011 Sample

Item	Veterans	Non-Traditional	Traditional	Significance
Overall, how would you evaluate the quality of academic advising	2.67	2.71	2.52	.003
Discussed grades or assignments with faculty	2.63	2.89	2.81	NS
Received prompt written or oral feedback from faculty	2.63	2.87	2.73	.012
Work on a research project with a faculty member	1.93	2.16	2.34	.001
Relationship with other students	5.17	5.34	5.48	NS
Relationship with faculty members	5.57	5.35	5.09	.002
Relationship with administrative personnel	4.60	4.41	3.94	.000
Institutional emphasis: Helping you cope with your non-academic responsibilities	1.80	1.86	1.93	.432

Several significant differences were found in 2011 item responses among student groups. Traditional students rate the quality of academic advising lower than nontraditional and student veterans. Student veterans rate receiving prompt feedback lower than both

nontraditional and traditional students. Traditional students were found to work with faculty on research more than nontraditional and student veterans. Student veterans and nontraditional students rate their relationship with faculty, in addition to their relationship with administrative personnel, higher than traditional students. A summary of the results of the Tukey test for the significant differences is presented in Table 4.13.

Table 4.13

Results of Tukey Post-Hoc Tests on Significant Effects for the 2011 Sample

Item	Tukey Results
Overall, how would you evaluate the quality of academic advising?	Traditional < Veterans = Non-Traditional
Received prompt written or oral feedback from faculty	Veterans = Traditional < Non-Traditional
Work on a research project with a faculty member	Veterans = Non-Traditional < Traditional
Relationship with faculty members	Traditional < Non-Traditional = Veterans
Relationship with administrative personnel	Veterans = Non-Traditional < Traditional

Table 4.14

Differences Between the Three Groups on the Items in 2013 Sample

Item	Veterans	Non-Traditional	Traditional	Significance
Asked another student to help you understand course material	2.31	2.22	2.42	.000
Explained course material to one or more students	2.77	2.63	2.76	.023
Prepared for exams by discussing or working through course material with other students	2.43	2.29	2.48	.002
Worked with other students on course projects or assignments	2.81	2.85	2.89	NS
Quality of interaction with academic advisors	4.84	4.93	4.60	.010
Quality of interactions with students	5.49	5.59	5.61	NS
Quality of interactions with faculty	5.45	5.45	5.30	NS
Quality of interactions with other administrative staff and offices	4.90	4.88	4.10	.000
Quality of interactions with student services staff	5.81	5.92	5.03	.000

Several significant differences were found in 2013 item responses among student groups. The biggest differences were found in the quality of interaction with administrative staff and offices and quality of interactions with student services staff which student veterans and nontraditional students rated higher than traditional students. Nontraditional students

rated two items lower than veterans and traditional students: asked another student to help you understand course material and explained course material to one or more students. The Tukey results are presented in Table 4.15.

Table 4.15

Results of Tukey Post-Hoc Tests on Significant Effects for the 2013 Sample

Item	Tukey Results
Asked another students to help you understand course material	Non-traditional = Veterans < Traditional
Explained course material to one or more students	Non-Traditional < Traditional = Veterans
Prepared for exams by discussing or working through course material with other students	Non-Traditional < Veterans = Traditional
Quality of interaction with academic advisors	Traditional < Veterans = Non-Traditional
Quality of interactions with other administrative staff and offices	Traditional < Non-Traditional = Veterans
Quality of interactions with students services staff	Traditional < Veterans = Non-Traditional

Separate samples t-tests were conducted comparing males to females and whites to non-whites for both the 2011 and 2013 samples. For the 2011 sample, there were no significant differences as a function of gender. For race, only one significant difference

was found- Supportive Campus Environment- where non-whites had a significantly higher mean. For the 2013 sample significant differences were found between males and females on Reflective and Integrative Learning, Learning Strategies and Quantitative Reasoning. Males had lower means for the first two but a higher mean for Quantitative Reasoning. In all three cases the effects were small. The only differences for race were on Discussions with Diverse Others where whites had a significantly higher mean.

Summary

The primary purpose of this research study was to examine whether or not student engagement has an effect on GPA in student veterans at a large urban Philadelphia university. Student engagement was measured by students' responses on the NSSE. Students' academic success was measured by GPA. The four research questions addressed in this study were answered by statistical tests. The following results were found.

The first research question asked if positive responses on the NSSE reflect higher GPA in student veterans. Pearson correlation coefficients were computed for both 2011 and 2013 samples. There were no significant correlations found in veteran and non-traditional student responses and GPA in either 2011 or 2013. While no statistical significance was found for the veteran group, the correlations were larger in 2011 for Active and Collaborative Learning and Supportive Campus Environment indicators for veterans. The 2013 sample presented a large correlation for veterans in Student-Faculty Interaction. An additional analysis using a one-way ANOVA presented a significant difference in GPA for both 2011 and 2013 samples. Non-traditional students had a

slightly lower GPA compared to veterans and traditional students. The effect, however, was very small.

The second research question asked if there was a difference between veteran students and non-veteran students in their perception of the university as measured by the NSSE. A three group MANOVA was performed using the omnibus Wilk's Lambda test statistic on each of the NSSE Engagement Indicators. Two significant findings were found in the Enriching Educational Experiences and Student-Faculty Interaction indicators in the 2011 sample.

Both veterans and non-traditional students scored lower than traditional students on these indicators. Analysis of the 2013 sample presented significant differences in all indicators except for Reflective and Integrative Learning and Effective Teaching Practices. Important to this study was the significant difference in Student-Faculty Interaction and Quality of Interactions between veterans and traditional students. The question, "How would you evaluate your entire educational experience at this institution?" was asked in both 2011 and 2013. Therefore additional analysis was done using a one-way ANOVA. Neither sample showed a statistically significant difference.

The third research question asked if individual questions and GPA differ in 2011 and 2013 NSSE responses among student groups. A Pearson correlation coefficient was used to compute results for both 2011 and 2013. Eight questions were tested for correlations in the 2011 sample. Only one question was statistically significant in the veteran group; overall, how would you evaluate the quality of academic advising. There was a positive significant correlation with GPA. Three questions were statistically

significant for the nontraditional student group: discussion of grades or assignments, relationship with administrative personnel, and institutional emphasis concerning help in coping with non-academic responsibilities. These were significant negative correlations with GPA. Traditional student results were significant for the following engagement indicators: received prompt written or oral feedback, work on a research project with a faculty member, and relationship with faculty members. Strong positive correlations with GPA were found for this group. Correlations were computed on the 2013 sample using nine NSSE items. Two questions were found to be statistically significant in the student veteran group: asked another student to help you understand course material and prepared for exams with other students. These results had negative correlations with GPA. Four significant correlations were found among the nontraditional student group. A negative correlation was found for the question: asked another student to help understand course material. There were positive correlations with GPA for the following items: quality of interactions with faculty, administrative staff and offices, and with student services staff. There were also four significant correlations found in the traditional student group. Two of the items had negative correlations with GPA: asked another student to help you understand course material and quality of interactions with other administrative staff and offices. The other two had positive correlations with GPA: quality of interactions with faculty and explained course material to one or more students.

The fourth research question focused on differences in individual NSSE item responses between the three student groups. This question was analyzed by utilizing one-way ANOVAs. Several differences were found in 2011 item responses. Veterans and

nontraditional students do not work with faculty on research projects as much as traditional students. Veterans and nontraditional students rate their relationship with faculty and administrative personnel higher than the traditional group. Traditional students rate advising lower than the other two groups.

Differences were also found in the 2013 sample. Veterans and nontraditional students rated the quality of interaction with administrative staff and offices and quality of interactions with student services staff higher than the traditional student group. The nontraditional student group rated the following lower than both veterans and traditional students: asked another student to help you understand course material and explained course material to one or more students.

An overview of the results, limitations, theoretical application, and implications for policy and practice and future research is discussed in Chapter 5.

CHAPTER 5

DISCUSSION, CONCLUSIONS, AND RECOMMENDATIONS

Overview

As stated in previous chapters, the major purpose of this study was to investigate whether the level of engagement, as measured by the National Survey of Student Engagement (NSSE) correlates with veterans' academic success as measured by cumulative GPA. There is a gap that exists in the literature regarding the relationship and/or quality of interaction with faculty, advisors, and peers that will be addressed in this chapter. This type of engagement is necessary for student success and supported by qualitative research (DiRamio & Jarvis, 2011; Rumann & Hamrick, 2010).

Applying Schlossberg's Transition Theory, as well as Livingston's Student Veteran Academic and Social Transition Model (SVASTM), to observations gained through the data analysis of this study provides valuable information to enhance programs and the quality of education in higher education institutions.

This quantitative study examined the effects of Kuh's student engagement, measured by the NSSE, on academic success in addition to perceptions of relationships and quality interactions with faculty, advisors, staff, and peers. Researchers suggest that if students are engaged with faculty, learning that is pedagogically engaging and collaborative, and expectations that are clear both academically and personally, the result is students' academic success (Ahlfeldt et al., 2005; Astin, 1991; Chickering & Gamson, 1987; Kuh et al., 2005; Pascarella & Terenzini, 2005). Schlossberg and her colleagues found that transition theory produced a foundation of support to understand the process of

transitioning from one environment to the next (Schlossberg et al., 2005). Livingston et al. (2011) created an academic and social transition model, while slightly different from Schlossberg's Transition Theory, which posits that social acculturation, is a greater concern for the success of student veterans.

This study used NSSE to conduct a quantitative analysis by examining correlations between students' GPA and engagement. Results of this survey were correlated with academic success which was measured by cumulative GPA. Veterans, nontraditional and traditional students' perception of the university and quality interactions with faculty, university staff, and peers were also examined. Four research questions were addressed.

1. Is there a positive relationship between engagement and GPA for student veterans?
2. Is there a difference between veterans, nontraditional and traditional students in their perception of the university as measured by the NSSE?
3. How does the quality of interaction with advisors, students, and faculty affect GPA in 2011 and 2013 NSSE responses among veterans, nontraditional and traditional students?
4. Are there differences in perception, on individual NSSE item responses, between the three student groups: student veterans, nontraditional and traditional students?

The results for each of these questions are presented and discussed below.

Research question 1 asked, “Is there a positive relationship between engagement and GPA for student veterans?” The statistical tests performed to answer this question addressed the relationship between student veterans’ NSSE Engagement Indicator responses regarding engagement and GPA. No statistically significant correlations were found between student veteran’s cumulative GPA and student engagement in 2011 or 2013. This would suggest that veterans’ engagement had little to no effect on a higher GPA. Although the correlations were not statistically significant, the correlations for the veterans between cumulative GPA and both Active and Collaborative Learning and Supportive Campus Environment were larger than for the other two groups. While there were positive correlations among veterans, regarding the above mentioned engagement indicators, the nontraditional group correlations were negative. This could suggest that nontraditional students may have had a more difficult time transitioning to an academic environment. The positive correlation was telling in that the military culture had influenced these students to the point of accepting transition as a challenge and one that they could easily overcome. This was also proven in the analysis of GPA for the three groups. While veterans and traditional students had a mean GPA of 3.24 in both samples, the nontraditional students were significantly lower with a mean of 3.15.

Once again, there was no statistical significance found in the 2013 sample. However, the correlation between GPA and Student-Faculty Interaction for veterans was larger than for the other two groups. Since the correlation was negative, the implication is that veterans who rated this aspect of engagement more negatively had lower GPAs.

Interestingly, the correlation for the traditional students was positive and significant. In looking more closely at the responses of each student group on the specific questions in the 2013 Student-Faculty indicator, veterans responses were routinely ‘sometimes’ and ‘never’ when discussing career plans with faculty, working with faculty on activities other than coursework, discussing topics and ideas with a faculty outside of class, and discussing academic performance with a faculty member. This indicator focuses on collaboration outside of the classroom. Results suggest that veterans may have jobs and familial responsibilities that would prevent them from meeting outside of the designated classroom time. Thus, the lower their rating of this aspect of engagement, the lower was their cumulative GPA.

An overall analysis of both 2011 and 2013 samples provided interesting and thoughtful observation. The veteran group had significantly different responses on the Student-Faculty Interaction in 2011 and 2013. In the 2011 sample, student veterans had a positive correlation between the Student-Faculty Interaction indicator and GPA. Conversely, the 2013 sample showed student veterans with a significant negative correlation. Another significant difference was the Supportive Campus Environment and Supportive Environment indicators. These two can be compared as six of the questions in 2013 are exactly the same as 2011 and different in three. Overall veterans that rated the campus as being supportive in 2011 did not feel the same as their responses were regularly “very little” to “some” in the 2013 sample. What happened that influenced veterans so negatively in 2013? The GI Bill benefits were received very late in the fall 2012 semester which could have attributed to negative responses. Social media at this

urban university was rife with frustrated students who were angry about not receiving benefits in a timely manner and administrative offices being of little to no help. This finding coincides with the U.S. Government Accountability Office (GAO) report (2013) and announced by Fox News Politics. This report stated that processing times for GI Bill benefits were considerably slower than previous years causing student veterans to take out personal loans or consider dropping out of college. The GAO claims the VA cannot keep up with all of the veterans returning to college.

Research question 2 asked, "Is there a difference between veterans, nontraditional and traditional students in their perception of the university as measured by the NSSE engagement indicators?" A three group MANOVA was used to test this question. Two significant findings were found between the three student groups: Student -Faculty Interaction and Enriching Educational Experiences. Of significance in this 2011 sample is the low scoring of veterans and nontraditional students on the Enriching Educational Experiences. This shows that the two groups, in 2011, scored 'sometimes' and 'never' to experiencing the following: used an electronic medium to discuss and complete assignments, had serious conversations with students of a different race or race other than your own, had serious conversations with students who are very different from you in terms of religious beliefs, political opinions, or personal values, completed a practicum or field experience, do community service or volunteer work, participate in a learning community, study abroad, do a culminating senior experience, participate in co-curricular activities (student government or sorority/fraternity, intramural sports), and encouraging contact among students from different economic, social, and racial or ethnic

backgrounds. A majority of the questions in this indicator describe social engagement or engagement with peers that would occur outside of the classroom. This finding coincides with previous qualitative research that states that student veterans oftentimes found non-veteran or traditional students immature, disrespectful, and narcissistic (Ford & Vignare, 2014). Social acculturation was an issue, as indicated by the American Council on Education (ACE) in 2009 and 2012 studies. The results in the 2013 sample do not corroborate this issue as veterans perceived the university highly when it came to Quality Interactions and fairly high in Discussion with Diverse Others. The change in negative response from 2011 could be due to the fact that veterans have found their own social group to engage with or have jobs and familial responsibilities that they need to focus on outside of classroom time.

Significant differences were found in the 2013 sample. The student veteran group scored lower in the following indicators: Higher-Order Learning, Student-Faculty Interaction, Effective Teaching Practices and Supportive Environment. Student veterans scored high on Quantitative Reasoning which included the following questions: reached conclusions based on your own analysis of numerical information, used numerical information to examine a real-world problem or issue, and evaluated what others have concluded from numerical information. This group also scored higher on the Quality of Interactions indicator: interactions with students, academic advisors, faculty, student services staff, and administrative staff and offices. While there were notable differences in the one-way ANOVA results, the overall perception of students' educational

experience at this institution did not differ among the three groups. A large percentage of the three groups rated their experiences as “good” and “excellent.”

Research question 3 asked, “How does the quality of interactions with advisors, students, and faculty affect GPA in 2011 and 2013 NSSE responses among student veterans, non-veterans and traditional students?” Due to the revision of the NSSE in 2013, questions differed between the two surveys; thus engagement indicators were different as well as individual items/questions. Pearson correlations were computed to examine specific questions and possible relationships with GPA. The most significant finding in the 2011 sample was student veterans’ rating on the quality of academic advising. Veterans that met with their advisor more had somewhat higher cumulative GPA. This was significantly different from nontraditional students who had a negative, although not significant, correlation between GPA and advisor interaction. The correlation for traditional students was also positive. This finding differed from 2013 with student veterans’ perceiving the quality of academic advising to be lower than in 2011, which negatively correlated with GPA, although not significantly. This was a surprising finding as academic advisors, at this point in time, should be better prepared to advise veterans as they had more knowledge of this student population and had more resources to assist in providing quality advisement; thus, perception and positive influence should have been significant. A number of external situations and circumstances may have contributed to the perception of lower quality such as family and work obligations. Light (2004) did extensive qualitative research on academic advising from the viewpoint of faculty and staff. In the data analysis Light found that both faculty

and staff ranked academic advising as a big challenge for students. Furthermore, staff and faculty agreed that advising is most beneficial when tailored to a student's background, unique situation, strengths, and goals and is significant to academic success (pp. 85). While in agreement with Light's analysis, it is concerning that veteran students' perception of the quality of academic advising was lower in 2013 than 2011.

While there was no statistical significance, there were positive correlations for veterans between GPA and their relationships with students, faculty, and administrative personnel. Positive correlations were found in all students surveyed between GPA and prompt feedback, work on a research project with faculty, and relationship with faculty members.

The findings were quite different in the 2013 sample. The significant finding here, specifically for the veteran group, was the low ratings on questions pertaining to engaging with peers on exams and course material. These findings are consistent with Kuh's (1993), which indicated that experiences outside of the classroom are important for learning and success. Once again, this may be an acculturation issue or that employment and family responsibilities take precedence. Hermann, Hopkins, Wilson, and Allen (2009) state that due to the significant differences in military and academic cultures it is harder for student veterans to assimilate. Another notable observation was the difference in quality of academic advising. Veterans had a significantly positive correlation in 2011; however their response in 2013 demonstrated a slightly negative, although not significant, correlation.

Research question 4 asked, “Are there differences in individual NSSE item responses between the three student groups: student veterans, nontraditional and traditional students?” Although question 4 appears similar to question 3, it is not testing for correlations between independent and dependent variables. Differences between groups were tested using a one-way ANOVA. Significant differences were found in the 2011 sample. Traditional students rate the quality of academic advising lower than nontraditional and veteran students. While traditional students reported working with faculty on research projects more than veterans and nontraditional students, the opposite was true regarding relationships with faculty. Cook-Sather, Bovill, and Felten (2014) state the relationship between faculty and students shouldn’t be complex but is more of a partnership of mutual respect, responsibility, and reciprocity. Cook et al. believe that this relationship requires attention, responsiveness, and trust which are imperative to the academic success of student veterans. This research coincides with the results found in this study regarding positive correlations as well as differences found in item responses among the student veteran group.

Differences were found in 2013 item reponses among veterans, nontraditional and traditional students. Veterans and nontraditional students rated quality interactions with administrative offices and staff and student services staff higher than traditional students. Although these specific responses were rated higher quality as well as in the Supportive Environment engagement indicator, quality of interaction with faculty was not significant, yet veterans had a negative perception of the Student-Faculty Interaction engagement indicator as a whole. A more thorough analysis of the survey responses

under this engagement indicator tells the researcher that the veteran group had little to no discussion with faculty regarding career plans, course topics or ideas outside of the classroom, or worked with a faculty on a project other than coursework. This could be due to veterans having responsibilites other than college study.

Limitations

Limitations of this study involved the NSSE data base specifically and secondary data analysis in general. This author was limited to the variables provided in the data set. The sample consisted of undergraduate students in their senior year of college taken from a very large research university on an urban campus. The sample size of veterans used in this study was very small, therefore a limited number of variables were used to maintain privacy and anonymity of the veteran participants. While this study utilizes many independent variables, others might have been used such as: geographical location, living on campus versus commuter, branch of the military, marital status, etc. Boslaugh (2007) concurs with this statement and states that a disadvantage to using secondary data is that "data may have been collected but are not available to the secondary researcher" such as addresses (pp. 4).

Another limitation is the inability to control the number of student veterans participating in the survey. In addition to this is the fact that veterans self-identify upon admission into the university. Student veterans may have been missed due to the fact that they were not identified in the system with a veteran status.

In addition, changes in the NSSE survey in 2013 limited the researcher from doing a sufficient comparison of variations in student groups from 2011 to 2013. If the

surveys were comparable the researcher may have been able to determine if academic success had improved from 2011 to 2013.

Some of the results of this survey imply that the NSSE might not be an ideal assessment of engagement. Each student group might have differing perspectives on the individual items in the NSSE therefore making it difficult to interpret veterans, nontraditional and traditional student ratings.

Theoretical Application

Schlossberg's Transition Theory. Transition affects all people at various stages in life. Schlossberg's transition theory framework promoted awareness to assist those people in transition. This theory is a good fit with the student veteran group as they are transitioning from one environment to another, a highly structured military environment to an academic environment that is unstructured. Schlossberg's transition theory correlates to this research study regarding challenges veterans experience when transitioning to college.

Four key factors were created to understand how one can successfully adjust to transition (Schlossberg, 1984). The first key factor is situation. Research has reported that when veterans transition into college they may experience the following: challenge with reporting structures, delays in processing GI Bill benefits, and difficulty with faculty (Elliott, Gonzalez, & Larsen, 2011; Glasser, Powers, & Zywiak, 2009; Moon & Schma, 2011). These challenges can cause stress which can influence a student's ability to cope. This particular factor conflicts with findings in this study. While veterans are experiencing ongoing difficulty with receiving GI Bill payments in a timely manner and

undue pressure from the university to pay their tuition bill, veterans still rate the university favorably in the NSSE. While there were significantly lower levels of quality of interaction in the 2013 sample, there was not a significant drop in GPA which indicates that students did not have issues with ability to cope.

The second factor is self. Schlossberg (1989) states external factors, such as one's perception of their life, and internal factors, such as morals, values, and optimism, shape one's outlook and how people cope with transition. Livingston et al. (2011) report that military men and women were trained to be independent, mentally strong, and persistent which is imperative in handling transition. This shows that external and internal factors, in addition to characteristics listed previously, have had a significant and positive influence on veterans and the challenges faced with transition to academia.

The third factor is support. Schlossberg (2011) felt that in order to transition successfully support needed to be available at the time of transition. Vacchi (2013) agrees but specifies that faculty support on campus is critical to veteran success. Bean and Metzner (1985) assert that it is more important for student veterans to academically assimilate than it is to socially interact and blend with non-veteran, or traditional, students. Cook and Kim (2009) proclaim student veterans felt unsupported on campus and that non-veteran students and faculty did not understand them. This statement was inconsistent with findings in this study. Veterans rated sufficient support on campus as a whole in 2011 and 2013; however, reported the quality of interactions as fair in 2013 compared to nontraditional and traditional students.

The fourth key factor in Schlossberg's theory is strategies. Strategies are typically deployed by universities in order to assist transition of all students. More specifically, universities have assisted veteran transitions by designating space to veteran students, creating an office that specifically handles student veteran needs, and forming committees to address policy issues that coincide with the Department of Veterans Affairs (Ackerman et al., 2009; Bauman, 2009; Burnett & Segoria, 2009). This key factor corresponds with student veterans' positive rating in the NSSE and overall satisfaction with the university as a whole in this study. The university has a designated office to handle student veteran needs as well as committees formulated to address policies that are in line with the VA.

Livingston's Theory. Livingston et al. (2011) believe that social acculturation is the largest concern when veterans transition into an academic environment. Bauman (2009) and Elliott et al. (2011) found that the age gap between student veterans and non-student veterans created social distance. In order to combat transition challenges, Livingston created the SVASTM which consists of categories, known as cornerstones, which are significant to the model.

The first cornerstone of significance to this study is military influence. Livingston et al. (2011) and Osborne (2014) agree that a veteran's military training and experiences formed a social disconnect with non-veteran students. This social "acculturation" was seen when student veterans reported little to no contact with traditional students regarding seeking help with coursework and exam preparation outside of the classroom. Hausmann,

Schofield, and Woods (2007) agree that cultural differences impede veterans from connecting with peers on campus which can affect academic success.

The second cornerstone of relevance is support. This category specifically addresses social support, not academic support. A research study of student veterans found that they did not feel supported by non-veteran students due to military culture and experiences (Ryan et al., 2011). While this cornerstone is plausible, this study does not support their findings as negative correlations were not found between peer engagement and academic success (GPA).

The final pertinent cornerstone is campus culture. This category focuses on perceptions of the apathy and helpfulness of administration, faculty, and students. There were significant findings regarding veteran's perceptions of quality interactions. Student veterans rated interactions with faculty, administrative staff, and student services staff higher than nontraditional students which were in turn higher than traditional students.

Implications

Policy and Practice. This quantitative research study has several implications for policy and practice, specifically at this large urban university. Some recommendations are based on personal experiences. An outcomes study focusing on veterans' perception of quality service has not been performed at this university regarding the benefits of the Veterans Affairs Office to the student veteran population. Are the programs and training offered beneficial to veterans? How has the office influenced veterans' success since inception in 2010? Vacchi and Berger (2014) suggest a separate space available for veterans to collaborate and study with their veteran peers. However, the results of this

study suggest that veterans are academically successful regardless of designated space. In order to continue the positive engagement with academic student services and staff and administrative offices, it would benefit the university to designate space for the Office of Veterans Affairs so that veterans are able to access resources.

This study shows that the Veteran's Affairs Office has been successful in influencing veteran's success. The office has created several programs throughout the year that have engaged veterans, including the Student Veterans Association which has had a phenomenal influence on the transition of veterans from a military culture to an academic culture. A recommendation for future practice would be to create a survey customized for student veterans asking questions more suitable for this group. Information captured in this survey would be beneficial to not only this university but higher education institutions nationwide. It would be beneficial to ask more specific questions regarding student-advisor interaction as all three student groups reported varying levels of satisfaction or "quality" when interacting with advisors. A customized survey would allow universities to find out about jobs held when active duty, dealing with any mental health issues such as PTSD or TBI, level of family involvement, specific financial concerns and the assistance received with processing military benefits. The list is significant and the benefits of data extraordinary.

Future Research. There are several implications of this study for future research. Student engagement has a beneficial effect on students and their perception of quality education. Longitudinal study is necessary to capture retention rates and time to graduation. After reading through several research studies about student veterans, this

area in particular shows a large gap in the literature. Another research topic would focus on the types of degrees veterans are seeking at universities after separation from the military. Are most student veterans enrolling in business programs, STEM, or health professions? Are the degrees sought related to jobs veterans had as active military? A longitudinal study may also capture information post-graduation. What kinds of jobs are student veterans seeking and eventually becoming employed? This would be interesting research as many veterans get out of the military and become police officers or obtain employment with the government. Once again, did their active military job influence their choice?

Another area that should be investigated for further research is the Faculty Survey of Student Engagement (FSSE). The FSSE was launched in 2013 and compliments the updated version of the NSSE. The focus is to gain information from faculty which could contribute to increasing the quality of teaching, learning and educational experiences of undergraduate students (www.fsse.indiana.edu). This would be a nice compliment to advancements made in the delivery of teaching and meeting the needs of students.

There is insufficient research on the effects of academic advising and student veteran success. While this study touched on the quality of academic advising and its' effects on student veteran success, the small sample is a limitation in and of itself. A researcher may benefit from extending research to urban universities to gather more data on quality interactions with advisors and veterans, nontraditional and traditional students.

This quantitative study offers a potential contribution to the field of research on student veterans. There has been very little quantitative research regarding student

engagement and academic success of veterans. Most studies have been qualitative and examine the effects of PTSD and traumatic brain injury, transition and acculturation (Cook & Kim, 2009; DiRamio et al., 2008; Radford, 2011). This study focused on engagement with faculty, advisors, staff and peers. While many qualitative studies have made statements about the importance of faculty-student interaction and engagement in general, no study has quantitatively analyzed the NSSE and those specific interactions with faculty, advisors, and peers and their influence, or not, on academic success (GPA). This study opens doors to further quantitative study and using the FSSE as a compliment to the NSSE.

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Appendix A

NSSE 2011 ENGAGEMENT INDICATORS AND ITEMS

Theme	Engagement Indicator	Component Items
Level of Academic Challenge	Level of Academic Challenge	How often have you done each of the following: Number of assigned textbooks, books, or book-length packs of course readings Number of written paper or reports of 20 pages or more Number of written paper or reports between 5 and 19 pages Number of written papers or report of fewer than 5 pages Coursework emphasized analyzing the basic elements of an idea, experience, or theory, such as examining a particular case or situation in depth and considering its components Coursework emphasized synthesizing and organizing ideas, information, or experiences into new, more complex interpretations and relationships Coursework emphasized making judgements about the value of information, arguments, or methods, such as examining how they gathered and interpreted data and assessing the soundness of their conclusions Coursework emphasized applying theories or concepts to practical problems or in new situations Worked harder than you thought you could to meet an instructors standards or expectations Hours per 7-day week spent preparing for class (studying, reading, writing, doing homework or lab work, analyzing data, rehearsing, and other academic activities Institutional emphasis: spending significant amounts of time studying and on academic work
Active and Collaborative Learning	Active and Collaborative Learning	Asked questions in class or contributed to class discussions Make a class presentation Worked with other students on projects during class Worked with classmates outside of class to prepare class assignments Tutored or taught other students (paid or voluntary) Participated in a community-based project (e.g. service-learning) as part of a regular course

NSSE 2011 continued

Theme	Engagement Indicator	Component Items
		Discussed ideas from your readings or classes with others outside of class (students, family members, co-workers etc.)
Student-Faculty Interaction	Student-Faculty Interaction	How often have you done each of the following: Discussed grades or assignments with an instructor Discussed ideas from your readings or classes with faculty members outside of class Talked about career plans with a faculty member or advisor Received prompt written or oral feedback from faculty on your academic performance Worked with faculty members on activities other than coursework (committees, orientation, student life activities, etc.)
Enriching Educational Experiences	Enriching Educational Experiences	How often have you done each of the following: Had serious conversations with students who are very different from you in terms of their religious beliefs, political opinions, or personal values Had serious conversations with students of a different race or ethnicity than your own Institutional emphasis: Encouraging contact among students from different economic, social, and racial or ethnic backgrounds Hours per 7-day week spent participating in co-curricular activities (organizations, campus publications, student government, fraternity or sorority, intercollegiate or intramural sports, etc.) Used an electronic medium (listserv, internet, instant messaging, etc.) as part of a regular course Practicum, internship, field experience, co-op experience, or clinical assignment Community service or volunteer work Participate in a learning community or some other formal program where groups of student take two or more classes together Foreign language coursework Study abroad Independent study of self-designed major Culminating senior experience (capstone course, senior project or thesis, comprehensive exam, etc.)

NSSE 2011 continued

Theme	Engagement Indicator	Component Items
Supportive Campus Environment	Supportive Campus Environment	How often have you done each of the following:
		Institutional emphasis: Providing the support you need to thrive socially
		Institutional emphasis: Providing the support you need to help you succeed academically
		Institutional emphasis: Helping you cope with your non-academic responsibilities (work, family, etc.)
		Quality: Your relationships with other students
		Quality: Your relationships with faculty members
		Quality: Your relationship with administrative personnel and offices

Appendix B

NSSE 2011 SURVEY

National Survey of Student Engagement 2011

The College Student Report

1 **In your experience at your institution during the current school year, about how often have you done each of the following? Mark your answers in theboxes.**

	Very often	Often	Some-times	Never
a. Asked questions in class or contributed to class discussions	☐	☐	☐	☐
b. Made a class presentation	☐	☐	☐	☐
c. Prepared two or more drafts of a paper or assignment before turning it in	☐	☐	☐	☐
d. Worked on a paper or project that required integrating ideas or information from various sources	☐	☐	☐	☐
e. Included diverse perspectives (different races, religions, genders, political beliefs, etc.) in class discussions or writing assignments	☐	☐	☐	☐
f. Come to class without completing readings or assignments	☐	☐	☐	☐
g. Worked with other students on projects **during class**	☐	☐	☐	☐
h. Worked with classmates **outside of class** to prepare class assignments	☐	☐	☐	☐
i. Put together ideas or concepts from different courses when completing assignments or during class discussions	☐	☐	☐	☐
j. Tutored or taught other students (paid or voluntary)	☐	☐	☐	☐
k. Participated in a community-based project (e.g., service learning) as part of a regular course	☐	☐	☐	☐
l. Used an electronic medium (listserv, chat group, Internet, instant messaging, etc.) to discuss or complete an assignment	☐	☐	☐	☐
m. Used e-mail to communicate with an instructor	☐	☐	☐	☐
n. Discussed grades or assignments with an instructor	☐	☐	☐	☐
o. Talked about career plans with a faculty member or advisor	☐	☐	☐	☐
p. Discussed ideas from your readings or classes with faculty members outside of class	☐	☐	☐	☐
q. Received prompt written or oral feedback from faculty on your academic performance	☐	☐	☐	☐
r. Worked harder than you thought you could to meet an instructor's standards or expectations	☐	☐	☐	☐
s. Worked with faculty members on activities other than coursework (committees, orientation, student life activities, etc.)	☐	☐	☐	☐
t. Discussed ideas from your readings or classes with others outside of class (students, family members, co-workers, etc.)	☐	☐	☐	☐
u. Had serious conversations with students of a different race or ethnicity than your own	☐	☐	☐	☐
v. Had serious conversations with students who are very different from you in terms of their religious beliefs, political opinions, or personal values	☐	☐	☐	☐

2 **During the current school year, how much has your coursework emphasized the following mental activities?**

	Very much	Quite a bit	Some	Very little
a. **Memorizing** facts, ideas, or methods from your courses and readings so you can repeat them in pretty much the same form	☐	☐	☐	☐
b. **Analyzing** the basic elements of an idea, experience, or theory, such as examining a particular case or situation in depth and considering its components	☐	☐	☐	☐
c. **Synthesizing** and organizing ideas, information, or experiences into new, more complex interpretations and relationships	☐	☐	☐	☐
d. **Making judgments** about the value of information, arguments, or methods, such as examining how others gathered and interpreted data and assessing the soundness of their conclusions	☐	☐	☐	☐
e. **Applying** theories or concepts to practical problems or in new situations	☐	☐	☐	☐

3 **During the current *school year*, about how much reading and writing have you done?**

a. Number of assigned textbooks, books, or book-length packs of course readings

☐ None ☐ 1-4 ☐ 5-10 ☐ 11-20 ☐ More than 20

b. Number of books read on your own (not assigned) for personal enjoyment or academic enrichment

☐ None ☐ 1-4 ☐ 5-10 ☐ 11-20 ☐ More than 20

c. Number of written papers or reports of **20 pages or more**

☐ None ☐ 1-4 ☐ 5-10 ☐ 11-20 ☐ More than 20

d. Number of written papers or reports **between 5 and 19 pages**

☐ None ☐ 1-4 ☐ 5-10 ☐ 11-20 ☐ More than 20

Number of written papers or reports of **fewer than 5 pages**

☐ None ☐ 1-4 ☐ 5-10 ☐ 11-20 ☐ More than 20

4 **In a *typical week*, how many homework problem sets do you complete?**

	None	1-2	3-4	5-6	More than 6
a. Number of problem sets that take you **more** than an hour to complete	☐	☐	☐	☐	☐
b. Number of problem sets that take you **less** than an hour to complete	☐	☐	☐	☐	☐

5 **Mark the box that best represents the extent to which your examinations during the current school year have challenged you to do your best work.**

Very little ☐1 ☐2 ☐3 ☐4 ☐5 ☐6 ☐7 Very much

6 **During the current school year, about how often have you done each of the following?**

	Very often	Often	Some-times	Never
a. Attended an art exhibit, play, dance, music, theater, or other performance	☐	☐	☐	☐
b. Exercised or participated in physical fitness activities	☐	☐	☐	☐
c. Participated in activities to enhance your spirituality (worship, meditation, prayer, etc.)	☐	☐	☐	☐
d. Examined the strengths and weaknesses of your own views on a topic or issue	☐	☐	☐	☐
e. Tried to better understand someone else's views by imagining how an issue looks from his or her perspective	☐	☐	☐	☐
f. Learned something that changed the way you understand an issue or concept	☐	☐	☐	☐

7 **Which of the following have you done or do you plan to do before you graduate from your institution?**

	Done	Plan to do	Do not plan to do	Have not decided
a. Practicum, internship, field experience, co-op experience, or clinical assignment	☐	☐	☐	☐
b. Community service or volunteer work	☐	☐	☐	☐
c. Participate in a learning community or some other formal program where groups of students take two or more classes together	☐	☐	☐	☐
d. Work on a research project with a faculty member outside of course or program requirements	☐	☐	☐	☐
e. Foreign language coursework	☐	☐	☐	☐
f. Study abroad	☐	☐	☐	☐
g. Independent study or self-designed major	☐	☐	☐	☐
h. Culminating senior experience (capstone course, senior project or thesis, comprehensive exam, etc.)	☐	☐	☐	☐

8 **Mark the box that best represents the quality of your relationships with people at your institution.**

a. Relationships with **other students**

Unfriendly, Unsupportive, Sense of alienation ☐1 ☐2 ☐3 ☐4 ☐5 ☐6 ☐7 Friendly, Supportive, Sense of belonging

b. Relationships with **faculty members**

Unavailable, Unhelpful, Unsympathetic ☐1 ☐2 ☐3 ☐4 ☐5 ☐6 ☐7 Available, Helpful, Sympathetic

c. Relationships with **administrative personnel and offices**

Unhelpful, Inconsiderate, Rigid ☐1 ☐2 ☐3 ☐4 ☐5 ☐6 ☐7 Helpful, Considerate, Flexible

9 About how many hours do you spend in a typical 7-day week doing each of the following?

a. Preparing for class (studying, reading, writing, doing homework or lab work, analyzing data, rehearsing, and other academic activities)

☐ 0 ☐ 1-5 ☐ 6-10 ☐ 11-15 ☐ 16-20 ☐ 21-25 ☐ 26-30 ☐ More than 30

Hours per week

b. Working for pay **on campus**

☐ 0 ☐ 1-5 ☐ 6-10 ☐ 11-15 ☐ 16-20 ☐ 21-25 ☐ 26-30 ☐ More than 30

Hours per week

c. Working for pay **off campus**

☐ 0 ☐ 1-5 ☐ 6-10 ☐ 11-15 ☐ 16-20 ☐ 21-25 ☐ 26-30 ☐ More than 30

Hours per week

d. Participating in co-curricular activities (organizations, campus publications, student government, fraternity or sorority, intercollegiate or intramural sports, etc.)

☐ 0 ☐ 1-5 ☐ 6-10 ☐ 11-15 ☐ 16-20 ☐ 21-25 ☐ 26-30 ☐ More than 30

Hours per week

e. Relaxing and socializing (watching TV, partying, etc.)

☐ 0 ☐ 1-5 ☐ 6-10 ☐ 11-15 ☐ 16-20 ☐ 21-25 ☐ 26-30 ☐ More than 30

Hours per week

f. Providing care for dependents living with you (parents, children, spouse, etc.)

☐ 0 ☐ 1-5 ☐ 6-10 ☐ 11-15 ☐ 16-20 ☐ 21-25 ☐ 26-30 ☐ More than 30

Hours per week

g. Commuting to class (driving, walking, etc.)

☐ 0 ☐ 1-5 ☐ 6-10 ☐ 11-15 ☐ 16-20 ☐ 21-25 ☐ 26-30 ☐ More than 30

Hours per week

10 To what extent does your institution emphasize each of the following?

	Very much	Quite a bit	Some	Very little
a. Spending significant amounts of time studying and on academic work	☐	☐	☐	☐
b. Providing the support you need to help you succeed academically	☐	☐	☐	☐
c. Encouraging contact among students from different economic, social, and racial or ethnic backgrounds	☐	☐	☐	☐
d. Helping you cope with your non-academic responsibilities (work, family, etc.)	☐	☐	☐	☐
e. Providing the support you need to thrive socially	☐	☐	☐	☐
f. Attending campus events and activities (special speakers, cultural performances, athletic events, etc.)	☐	☐	☐	☐
g. Using computers in academic work	☐	☐	☐	☐

11 To what extent has your experience at this institution contributed to your knowledge, skills, and personal development in the following areas?

	Very much	Quite a bit	Some	Very little
a. Acquiring a broad general education	☐	☐	☐	☐
b. Acquiring job or work-related knowledge and skills	☐	☐	☐	☐
c. Writing clearly and effectively	☐	☐	☐	☐
d. Speaking clearly and effectively	☐	☐	☐	☐
e. Thinking critically and analytically	☐	☐	☐	☐
f. Analyzing quantitative problems	☐	☐	☐	☐
g. Using computing and information technology	☐	☐	☐	☐
h. Working effectively with others	☐	☐	☐	☐
i. Voting in local, state, or national elections	☐	☐	☐	☐
j. Learning effectively on your own	☐	☐	☐	☐
k. Understanding yourself	☐	☐	☐	☐
l. Understanding people of other racial and ethnic backgrounds	☐	☐	☐	☐
m. Solving complex real-world problems	☐	☐	☐	☐
n. Developing a personal code of values and ethics	☐	☐	☐	☐
o. Contributing to the welfare of your community	☐	☐	☐	☐
p. Developing a deepened sense of spirituality	☐	☐	☐	☐

12 Overall, how would you evaluate the quality of academic advising you have received at your institution?

☐ Excellent
☐ Good
☐ Fair
☐ Poor

13 How would you evaluate your entire educational experience at this institution?

☐ Excellent
☐ Good
☐ Fair
☐ Poor

14 If you could start over again, would you go to the *same institution* you are now attending?

☐ Definitely yes
☐ Probably yes
☐ Probably no
☐ Definitely no

15 **Write in your year of birth:** 1 9 _ _

16 **Your sex:**

☐ Male ☐ Female

Are you an international student or foreign national?

☐ Yes ☐ No

What is your racial or ethnic identification? (Mark only one.)

☐ American Indian or other Native American
☐ Asian, Asian American, or Pacific Islander
☐ Black or African American
☐ White (non-Hispanic)
☐ Mexican or Mexican American
☐ Puerto Rican
☐ Other Hispanic or Latino
☐ Multiracial
☐ Other
☐ I prefer not to respond

19 **What is your current classification in college?**

☐ Freshman/first-year ☐ Senior
☐ Sophomore ☐ Unclassified
☐ Junior

Did you begin college at your current institution or elsewhere?

☐ Started here ☐ Started elsewhere

Since graduating from high school, which of the following types of schools have you attended other than the one you are attending now? (Mark all that apply.)

☐ Vocational or technical school
☐ Community or junior college
☐ 4-year college other than this one
☐ None
☐ Other

Thinking about this current academic term, how would you characterize your enrollment?

☐ Full-time ☐ Less than full-time

Are you a member of a social fraternity or sorority?

☐ Yes ☐ No

24 **Are you a student-athlete on a team sponsored by your institution's athletics department?**

☐ Yes ☐ No (Go to question 25.)

On what team(s) are you an athlete (e.g., football, swimming)? Please answer below:

25 **What have most of your grades been up to now at this institution?**

☐ A ☐ B+ ☐ C+
☐ A- ☐ B ☐ C
☐ B- ☐ C- or lower

26 **Which of the following best describes where you are living now while attending college?**

☐ Dormitory or other campus housing (not fraternity/sorority house)
☐ Residence (house, apartment, etc.) within **walking distance** of the institution
☐ Residence (house, apartment, etc.) within **driving distance** of the institution
☐ Fraternity or sorority house
☐ None of the above

27 **What is the highest level of education that your parent(s) completed? (Mark one box per column.)**

Father	Mother	
☐	☐	Did not finish high school
☐	☐	Graduated from high school
☐	☐	Attended college but did not complete degree
☐	☐	Completed an associate's degree (A.A., A.S., etc.)
☐	☐	Completed a bachelor's degree (B.A., B.S., etc.)
☐	☐	Completed a master's degree (M.A., M.S., etc.)
☐	☐	Completed a doctoral degree (Ph.D., J.D., M.D., etc.)

28 **Please print your major(s) or your expected major(s).**

a. Primary major (Print only one.):

b. If applicable, second major (not minor, concentration, etc.):

THANKS FOR SHARING YOUR RESPONSES!

After completing the survey, please put it in the enclosed postage-paid envelope and deposit it in any U.S. Postal Service mailbox. Questions or comments? Contact the National Survey of Student Engagement, Indiana University, 1900 East Tenth Street, Suite 419, Bloomington IN 47406-7512 or nsse@indiana.edu or www.nsse.iub.edu.

Appendix C

NSSE 2013 ENGAGEMENT INDICATORS AND ITEMS

Theme	Engagement Indicators	Component Items
Academic Challenge	Higher-Order Learning	During the current school year, how much has your coursework emphasized the following: Applying facts, theories, or methods to practical problems or new situations Analyzing an idea, experience, or line of reasoning in depth by examining its parts Evaluating a point of view, decision, or information source Forming a new idea or understanding from various pieces of information
	Reflective & Integrative Learning	During the current school year how often have you: Combined ideas from different courses when completing assignments Connected your learning to societal problems or issues Included diverse perspectives (political, religious, racial, gender, etc.) in course discussions or assignments Examined the strengths and weaknesses of your own views on a topic or issue Tried to better understand someone else's view by imaging how an issue looks from his or her perspective Learned something that changed the way you understand an issue or concept Connected ideas from your courses to your prior experiences and knowledge
	Learning Strategies	During the current school year, how often have you: Identified key information from reading assignments Reviewed your notes after class Summarized what you learned in class or from course materials
	Quantitative Reasoning	During the current school year, how often have you: Reached conclusions based on your own analysis of numerical information (numbers, graphs, statistics, etc.) Used numerical information to examine a real-world problem or issue (unemployment, climate change, public health, etc.) Evaluated what others have concluded from numerical information

NSSE 2013 continued

Theme	Engagement Indicators	Component Items
Learning with Peers	Collaborative Learning	During the school year how often have you: Asked another student to help you understand course material Explained course material to one or more students Prepared for exams by discussing or working through course material with other students Worked with other students on course projects
	Discussion with Diverse Others	How often have you had discussions with people form the following groups: People from a race or ethnicity other than your own People from an economic background other than your own People with religious beliefs other than your own People with political views other than your own
Experiences with Faculty	Student-Faculty Interaction	During the current school year, how often have you: Talked about career plans with a faculty member Worked with a faculty member on activities other than coursework Discussed course topics, ideas, or concepts with a faculty member outside of class
	Effective Teaching Practices	During the current school year, to what extent have your instructors done the following: Clearly explained course goals and requirements Taught course sessions in an organized way Used examples or illustrations to explain difficult points Provided feedback on a draft or work in progress Provided prompt and detailed feedback on tests or completed assignments
Campus Environment	Quality of Interactions	Indicate the quality of your interactions with the following people at your institution: Students Academic advisors Faculty Student services staff (career svc, student activities, housing, etc.) Other administrative staff and offices (registrar, financial aid, etc.)

Appendix D

NSSE 2013 SURVEY

NSSE national survey of student engagement
THE COLLEGE STUDENT REPORT

0% complete

During the current school year, about how often have you done the following?

	Very often	Often	Sometimes	Never
Asked questions or contributed to course discussions in other ways	○	○	○	○
Prepared two or more drafts of a paper or assignment before turning it in	○	○	○	○
Come to class without completing readings or assignments	○	○	○	○
Attended an art exhibit, play or other arts performance (dance, music, etc.)	○	○	○	○
Asked another student to help you understand course material	○	○	○	○
Explained course material to one or more students	○	○	○	○
Prepared for exams by discussing or working through course material with other students	○	○	○	○
Worked with other students on course projects or assignments	○	○	○	○
Gave a course presentation	○	○	○	○

During the current school year, about how often have you done the following?

	Very often	Often	Sometimes	Never
Combined ideas from different courses when completing assignments	○	○	○	○
Connected your learning to societal problems or issues	○	○	○	○
Included diverse perspectives (political, religious, racial/ethnic, gender, etc.) in course discussions or assignments	○	○	○	○
Examined the strengths and weaknesses of your own views on a topic or issue	○	○	○	○
Tried to better understand someone else's views by imagining how an issue looks from his or her perspective	○	○	○	○
Learned something that changed the way you understand an issue or concept	○	○	○	○
Connected ideas from your courses to your prior experiences and knowledge	○	○	○	○

During the current school year, about how often have you done the following?

	Very often	Often	Sometimes	Never
Talked about career plans with a faculty member	○	○	○	○
Worked with a faculty member on activities other than coursework (committees, student groups, etc.)	○	○	○	○
Discussed course topics, ideas, or concepts with a faculty member outside of class	○	○	○	○
Discussed your academic performance with a faculty member	○	○	○	○

During the current school year, how much has your coursework emphasized the following?

	Very much	Quite a bit	Some	Very little
Memorizing course material	○	○	○	○
Applying facts, theories, or methods to practical problems or new situations	○	○	○	○
Analyzing an idea, experience, or line of reasoning in depth by examining its parts	○	○	○	○
Evaluating a point of view, decision, or information source	○	○	○	○
Forming a new idea or understanding from various pieces of information	○	○	○	○

During the current school year, to what extent have your instructors done the following?

	Very much	Quite a bit	Some	Very little
Clearly explained course goals and requirements	○	○	○	○
Taught course sessions in an organized way	○	○	○	○
Used examples or illustrations to explain difficult points	○	○	○	○
Provided feedback on a draft or work in progress	○	○	○	○
Provided prompt and detailed feedback on tests or completed assignments	○	○	○	○

During the current school year, about how often have you done the following?

	Very often	Often	Sometimes	Never
Reached conclusions based on your own analysis of numerical information (numbers, graphs, statistics, etc.)	○	○	○	○
Used numerical information to examine a real-world problem or issue (unemployment, climate change, public health, etc.)	○	○	○	○
Evaluated what others have concluded from numerical information	○	○	○	○

Continue

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NSSE national survey of student engagement
THE COLLEGE STUDENT REPORT

26% complete

During the current school year, about how many papers, reports, or other writing tasks of the following length have you been assigned? (Include those not yet completed.)

	None	1-2	3-5	6-10	11-15	16-20	More than 20 papers, etc.
Up to 5 pages	○	○	○	○	○	○	○
Between 6 and 10 pages	○	○	○	○	○	○	○
11 pages or more	○	○	○	○	○	○	○

During the current school year, about how often have you had discussions with people from the following groups?

	Very often	Often	Sometimes	Never
People of a race or ethnicity other than your own	○	○	○	○
People from an economic background other than your own	○	○	○	○
People with religious beliefs other than your own	○	○	○	○
People with political views other than your own	○	○	○	○

During the current school year, about how often have you done the following?

	Very often	Often	Sometimes	Never
Identified key information from reading assignments	○	○	○	○
Reviewed your notes after class	○	○	○	○
Summarized what you learned in class or from course materials	○	○	○	○

During the current school year, to what extent have your courses challenged you to do your best work?

Not at all						Very much
○	○	○	○	○	○	○
1	2	3	4	5	6	7

Which of the following have you done or do you plan to do before you graduate?

	Done or in progress	Plan to do	Do not plan to do	Have not decided
Participate in an internship, co-op, field experience, student teaching, or clinical placement	○	○	○	○
Hold a formal leadership role in a student organization or group	○	○	○	○
Participate in a learning community or some other formal program where groups of students take two or more classes together	○	○	○	○
Participate in a study abroad program	○	○	○	○
Work with a faculty member on a research project	○	○	○	○
Complete a culminating senior experience (capstone course, senior project or thesis, comprehensive exam, portfolio, etc.)	○	○	○	○

About how many of your courses at this institution have included a community-based project (service-learning)?

- ○ All
- ○ Most
- ○ Some
- ○ None

Indicate the quality of your interactions with the following people at your institution.

	Poor 1	2	3	4	5	6	Excellent 7	*Not Applicable*
Students	○	○	○	○	○	○	○	○
Academic advisors	○	○	○	○	○	○	○	○
Faculty	○	○	○	○	○	○	○	○
Student services staff (career services, student activities, housing, etc.)	○	○	○	○	○	○	○	○
Other administrative staff and offices (registrar, financial aid, etc.)	○	○	○	○	○	○	○	○

Continue

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How much does your institution emphasize the following?

	Very much	Quite a bit	Some	Very little
Spending significant amounts of time studying and on academic work	○	○	○	○
Providing support to help students succeed academically	○	○	○	○
Using learning support services (tutoring services, writing center, etc.)	○	○	○	○
Encouraging contact among students from different backgrounds (social, racial/ethnic, religious, etc.)	○	○	○	○
Providing opportunities to be involved socially	○	○	○	○
Providing support for your overall well-being (recreation, health care, counseling, etc.)	○	○	○	○
Helping you manage your non-academic responsibilities (work, family, etc.)	○	○	○	○
Attending campus activities and events (performing arts, athletic events, etc.)	○	○	○	○
Attending events that address important social, economic, or political issues	○	○	○	○

About how many hours do you spend in a typical 7-day week doing the following?

	Hours per week							
	0	1-5	6-10	11-15	16-20	21-25	26-30	More than 30
Preparing for class (studying, reading, writing, doing homework or lab work, analyzing data, rehearsing, and other academic activities)	○	○	○	○	○	○	○	○
Participating in co-curricular activities (organizations, campus publications, student government, fraternity or sorority, intercollegiate or intramural sports, etc.)	○	○	○	○	○	○	○	○
Working for pay **on campus**	○	○	○	○	○	○	○	○
Working for pay **off campus**	○	○	○	○	○	○	○	○
Doing community service or volunteer work	○	○	○	○	○	○	○	○
Relaxing and socializing (time with friends, video games, TV or videos, keeping up with friends online, etc.)	○	○	○	○	○	○	○	○
Providing care for dependents (children, parents, etc.)	○	○	○	○	○	○	○	○
Commuting to campus (driving, walking, etc.)	○	○	○	○	○	○	○	○

Of the time you spend preparing for class in a typical 7-day week, about how many hours are on *assigned reading*?

- 0 hours
- 1-5 hours
- 6-10 hours
- 11-15 hours
- 16-20 hours
- 21-25 hours
- 26-30 hours
- More than 30 hours

How much has your experience at this institution contributed to your knowledge, skills, and personal development in the following areas?

	Very much	Quite a bit	Some	Very little
Writing clearly and effectively				
Speaking clearly and effectively				
Thinking critically and analytically				
Analyzing numerical and statistical information				
Acquiring job- or work-related knowledge and skills				
Working effectively with others				
Developing or clarifying a personal code of values and ethics				
Understanding people of other backgrounds (economic, racial/ethnic, political, religious, nationality, etc.)				
Solving complex real-world problems				
Being an informed and active citizen				

How would you evaluate your entire educational experience at this institution?

- Excellent
- Good
- Fair
- Poor

If you could start over again, would you go to the *same institution* you are now attending?

- Definitely yes
- Probably yes
- Probably no
- Definitely no

Continue

How many majors do you plan to complete? (Do not count minors.)

- One
- More than one

What is your class level?

- Freshman/first-year
- Sophomore
- Junior
- Senior
- Unclassified

Thinking about this current academic term, are you a full-time student?

- Yes
- No

How many courses are you taking for credit this current academic term?

- 0
- 1
- 2
- 3
- 4
- 5
- 6
- 7 or more

Of these, how many are *entirely online*?

- 0
- 1
- 2
- 3
- 4
- 5
- 6
- 7 or more

What have most of your grades been up to now at this institution?

- ○ A
- ○ A-
- ○ B+
- ○ B
- ○ B-
- ○ C+
- ○ C
- ○ C- or lower

Did you begin college at this institution or elsewhere?

- ○ Started here
- ○ Started elsewhere

Since graduating from high school, which of the following types of schools have you attended *other than* the one you are now attending? (Select all that apply.)

- ☐ Vocational or technical school
- ☐ Community or junior college
- ☐ 4-year college or university other than this one
- ☐ None
- ☐ Other

What is the highest level of education you ever expect to complete?

- ○ Some college but less than a bachelor's degree
- ○ Bachelor's degree (B.A., B.S., etc.)
- ○ Master's degree (M.A., M.S., etc.)
- ○ Doctoral or professional degree (Ph.D., J.D., M.D., etc.)

What is the highest level of education completed by either of your parents (or those who raised you)?

- ○ Did not finish high school
- ○ High school diploma or G.E.D.
- ○ Attended college but did not complete degree
- ○ Associate's degree (A.A., A.S., etc.)
- ○ Bachelor's degree (B.A., B.S., etc.)
- ○ Master's degree (M.A., M.S., etc.)
- ○ Doctoral or professional degree (Ph.D., J.D., M.D., etc.)

What is your gender?

- ○ Male
- ○ Female

Enter your year of birth (e.g., 1994):

[ ]

Are you an international student or foreign national?

- ○ Yes
- ○ No

What is your racial or ethnic identification? (Select all that apply.)

- ☐ American Indian or Alaska Native
- ☐ Asian
- ☐ Black or African American
- ☐ Hispanic or Latino
- ☐ Native Hawaiian or Other Pacific Islander
- ☐ White
- ☐ Other
- ☐ I prefer not to respond

Are you a member of a social fraternity or sorority?

- ○ Yes
- ○ No

Which of the following best describes where you are living while attending college?

- ○ Dormitory or other campus housing (not fraternity or sorority house)
- ◉ Fraternity or sorority house
- ○ Residence (house, apartment, etc.) *within* walking distance to the institution
- ○ Residence (house, apartment, etc.) *farther than* walking distance to the institution
- ○ None of the above

Are you a student-athlete on a team sponsored by your institution's athletics department?

- ○ Yes
- ○ No

Are you a current or former member of the U.S. Armed Forces, Reserves, or National Guard?

- ○ Yes
- ○ No

Have you been diagnosed with any disability or impairment?

- ○ Yes
- ○ No
- ○ I prefer not to respond

Which of the following have been diagnosed? (Select all that apply)

- ☐ A sensory impairment (vision or hearing)
- ☐ A mobility impairment
- ☐ A learning disability (e.g., ADHD, dyslexia)
- ☐ A mental health disorder
- ☐ A disability or impairment not listed above

Which of the following best describes your sexual orientation?

- ○ Heterosexual
- ○ Gay
- ○ Lesbian
- ○ Bisexual
- ○ Questioning or unsure
- ○ I prefer not to respond

Continue

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